



Targeted Consultancy Services as an Instrument for the Development of Remote SMEs

A Brazilian Case

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This article claims that traditional supply of public support programmes for small and medium-sized enterprises (SMEs) in remote locations fails to achieve its objective: it is not met by 'hidden' demand. An experiment was conducted in SMEs that did not use available consultancy programmes in three remote regions in the state of Ceara in Brazil: a consultant was sent to each of them on a diagnosis mission. The results indicate that there is a 'hidden demand', in the sense that most of the enterprises need consultancy, but do not apply for the available services, and that they are generally incorrect in their assessments of the problems they face and how the issues identified should be prioritized. After benefiting from short-term diagnostic consultancy, they are better able to evaluate problems and, consequently, use available professional consultancy services more efficiently.

KEYWORDS: Brazil; consultancy; entrepreneurship; public policy; regional development; remote; rural; SME

1. Introduction

Many countries offer consulting and training programmes to small and medium-sized enterprises (SMEs). This article argues that there is a market failure in the operation of such programmes in the conditions of remote or rural areas, thus requiring the adoption of special policies.¹ They may be located in the rural area or at small towns, where the lack of 'easy access' may be considered as the inability to access such services on a daily commuting pattern. The influence of distance, however, should not be oversimplified: as Bennett et. al (2000: 826) show, there are actually two interacting features, one is distance, and the other is 'the patterns of competing locations of suppliers in centers of different sizes at varying distances away from the client'. In many cases, the limited 'access' may also be defined in information or communication terms and not only in physical terms, when information about the availability of such services does not reach the SMEs.

Public consulting services (at subsidized rates) are generally intended to solve a market failure: such services are expected to induce social benefits far beyond the benefits of the single entrepreneur: increased demand and economic growth through a multiplier effect, decreasing inequalities and social problems, effects of diffusion of technology, social stability, etc. In the case of remote SMEs, such a system may fail to respond to the market failure, because of a remoteness effect, affecting both demand and supply of support services. On the demand side on the part of the entrepreneurs, the consultancy programmes are less accessible (or are accessible at a higher communication price) because of distance, making the demand much lower for given supplied services. On the supply side, the consultants at central urban locations may be less experienced in the specific problems and conditions of the rural remote enterprises, therefore making the supplied services less valuable. In other words, there may be a lack of compatibility between the supply of programmes and the demand for support. Consequently, when considering reactive vs. proactive local economic policy, it seems that these conditions lead to the need for a proactive policy, as will be detailed later.

Support for SMEs in peripheral areas is one of the major policy instruments used in order to stimulate economic growth, and decrease unemployment and spatial inequality. The decreasing weight of agriculture in the economy poses serious challenges to the development process of rural or peripheral less urbanized regions. Those generally have difficulties making the structural adjustments needed to accommodate national growth, and this, in turn, leads to growing unemployment rates, regional economic gaps and continuous migration to metropolitan centres. SMEs located in rural areas or small towns are expected to play an important role in the process of economic development, absorbing the excess labour force from agriculture and leading the transition to non-farm employment. In practice, however, SMEs face substantial difficulties in their attempts to integrate into the national trends of economic growth. To a certain extent this can be attributed to the insufficient skills and knowledge of the entrepreneurs.

Government support systems for SMEs may be effective for enterprises within a reasonable distance of urban or metropolitan areas, but they seem to lose most of their effectiveness for enterprises in remote areas. Such programmes are mostly provided within the urban sector, and may not be adapted to the needs and the characteristics of the peripheral rural sector. The outcome is that although there is potential need for the services among SMEs based in remote areas, and although a wide range of support services for SMEs exists at the national and regional level, these programmes apparently fail to achieve their objective in the remote areas, and consequently takeoff in those regions is considerably limited.

The hypothesis we test in this article has two parts.

One is that there actually is a remoteness effect expressed by a discrepancy between the demand and supply of consulting services. Our hypothesis is that the failure of remote SMEs to use consultancy services does not mean that such enterprises do not experience serious problems. We expect to find on one hand a low demand for consultancy services, and on the other hand a high occurrence

of problems in the remote SMEs. Remoteness, in terms of distances to services, and poor communication and information, implies high costs and therefore low accessibility to such services.

The second is that a partial solution to this discrepancy between demand and supply can be found in the adoption of a different support approach: a reach-out diagnosis approach, where the consultant approaches entrepreneurs and helps them identify their main problems, therefore decreasing the cost of remoteness by facilitating focused access to the specific support programmes supplied and increasing their efficiency for the needs of the remote enterprises.

We test this hypothesis through the implementation of a pilot experiment in three regions in the interior of the State of Ceara in north-eastern Brazil. The experiment is conducted as part of the Sao Jose Project, targeted at the diminution of poverty in the rural area, led by the Secretary of Rural Development, Pedro Sisnando Leite and implemented by SEBRAE (Serviço Brasileiro de Apoio às Micro e Pequenas Empresas), a public consulting and training company. Consultants are sent to SME entrepreneurs, offer their help, and spend a few hours in the firm helping the owner analyse and identify the main problems, and together with the owners evaluate the optimal intervention approach for consultancy.

2. Theoretical Background

A considerable number of recent studies have dealt with the importance of the contribution of SMEs in remote areas to regional development and with the difficulties faced by consultancy programmes in trying to provide efficient support to the SMEs.

Our starting point is that small businesses make a significant contribution to the local and regional economy, the community and national economic growth. The importance of small businesses is in job and wealth creation and economic regeneration, mostly in the rural area in peripheral regions. They contribute to creating new sources of income in regions where there is a reduction in agricultural sources of employment. Furthermore, they utilize unexploited means of production (infrastructure, labour force), encourage local entrepreneurship and have a high local and regional multiplier. It is the small firms that tend to seek supplies, services and capital from local businesses, thus causing a positive spread effect on local businesses, while being less vulnerable to closures than branch establishments that have no loyalty to the local community and are influenced by external decisions (Henderson et al., 2000; Winders, 2000).

However, despite their importance, small businesses encounter difficulties that hinder their development. A significant number of the problems are related to business aspects: management, business skill and marketing deficiencies (Huang and Brown, 1999; Smallbone and Welter, 2001), obstacles in human resources (Huang and Brown, 1999), obstacles in the development of external linkages and network relations (Rothwell and Dodgson, 1991), difficulties linked to the institutional environment including bureaucracy (Bartlett and Bukvic, 2001; Ren, 1999), and the inability of existing financial institutions to cater to the needs of

small business, including the high cost of capital (Bartlett and Bukvic, 2001; Binks, 1979; Deakins, 1999; Felsenstein and Schwartz, 1993). The degree to which such firms are subject to difficulties also depends to a large extent upon the stage of development (Low and Abrahamson [1997] make the distinction between the contexts of emerging, growth and mature industries) and upon the industrial sectors (North and Smallbone, 2000).

The assistance programmes available in many states attempt to provide entrepreneurs with services to help them overcome these problems (Chrisman, 1999; Hjalmarsson and Johansson, 2003; Lowe and Talbot, 2000; United Nations Conference on Trade and Development [UNCTAD], 2000; Winders, 2000). It is, however, apparent that the entrepreneurs do not necessarily take advantage of the existing supply. In some cases, regardless of the availability and supply of services and the documented need for said services, demand does not meet supply. As a result, the penetration rate of the assistance programmes is low (Curran and Blackburn, 2000; Patton et al., 2000; Westhead and Storey, 1996). This is especially crucial for the rural SMEs. Evidence from Latin America and Africa (Liedholm, 2002) shows that SMEs located in rural areas are less likely to survive during a given year than those located in the urban areas (by 25%). Gibb (1997: 26) considers the SME as a part of a network, operating within a learning environment, and therefore 'the challenge of competitiveness is one of finding new ways of converting the learning skills of SMEs and the stakeholders into the training demands of the future'.

The discrepancy between supply and demand is explained by the following factors:

1. Distance to the location of service (Bennett et al., 2000), as time availability has been found to be a dominant factor in SMEs with regard to the acquisition of support services (Henderson et al., 2000). This factor is naturally mostly relevant to the rural SMEs;
2. Lack of information regarding assistance programmes (Patton et al., 2000). Remote SMEs suffer more from this factor because of their lower access to information sources;
3. Supply is usually focused on specific areas, and SMEs generally face a wide range of problems, especially under conditions of transition from an agricultural economy, rather than a specific difficulty;
4. Supply is in many cases characterized by fixed structures that do not respond adequately to the heterogeneity of SMEs, and the various problems that they face. A standardized solution and an approach based on the provision of off-the-shelf programmes does not provide an appropriate response to this heterogeneity (Devins, 1999; Huang and Brown, 1999), and neither for that matter do the programmes respond to niches in need of services (Robson and Bennett, 2000);
5. SMEs find it difficult to identify their problems correctly. One of the explanations for this is a lack of knowledge or motivation on the part of the business owner (Clark, Berkeley and Steuer, 2001; Pounds, 1969 cited in Huang and Brown, 1999);

6. At times the problem is not a failure of identification, but rather the business owner's failure to focus on the main problems threatening the business, either due to time and financial constraints (Devins, 1999), or because the business acts in response to events and not on the basis of rational long-term thinking (Gelderen et al., 2000);
7. Business owners might find it difficult to identify the type of consulting needed, and the risk of waste and error is high (Deakins, 1999). Consequently, they may avoid seeking consulting;
8. Supply, in many cases, does not meet the expectations of the entrepreneurs (Fogel, 2001);
9. The CEO of the small business and the external adviser may have incompatible approaches and personalities. This lack of compatibility can be in the culture, concepts or familiarity of the consultant with the environmental conditions of the business. Any advice that conflicts with the culture, modes of communication and learning styles is destined to be ineffective (Dalley and Hamilton, 2000); and,
10. Entrepreneurs may also be suspicious, and lack the trust and desire to reveal themselves to the establishment. SMEs seek advisory services through their network (Hjalmarsson and Johansson, 2003).

This situation, in which demand does not meet supply, is relatively more common in rural areas of lesser-developed peripheral regions. This is true in the areas that are in greater need of assistance from the public system, where the alternatives offered by the private market are extremely meagre (Bennett et al., 2001). The SMEs in these regions are located relatively far away from the service centres and concentrations of economic activity. There is a lack of information regarding assistance programmes in these regions, as well as a lack of awareness as to their importance. The relatively difficult economic situation in the periphery leads to a situation where the businesses are smaller and less innovative, often focus on niche markets (Lowe and Talbot, 2000) and deal more with immediate issues than with problems essential to their functioning. The unique conditions in the rural sector necessitate special programmes that, as a rule, do not already exist. In many cases, the location of the supplied services is distant from the businesses, and there is a lack of consultants who possess a high level of understanding of these businesses, are immersed in the local culture, familiar with the needs and characteristics of this sector and are able to speak the local language. All of the factors described above make the phenomenon of discrepancy between the supply and demand relatively more common in rural areas, particularly in less-developed peripheral regions.

3. Research Approach

In this article we attempt to respond to the issue of discrepancy between the supply and demand for support services to remote SMEs by testing a reach-out diagnosis approach. The research design used is a 'before-after' experiment without a control group. In collaboration with the Secretariat of Rural

Development and SEBRAE, a public company for consulting and training in the state of Ceara, a list of small remote firms has been selected for the implementation of the experiment, where consultants approach businesses, offer them a diagnostic consultancy, evaluate the extent to which the diagnosis fits preliminary evaluations made by the entrepreneurs, and identify focused relevant assistance programmes for each business. Measurement of the evaluation of the diagnosis evaluations made by the entrepreneur are made before and after the intervention of the consultants. No comparison is made with a control group of SMEs for which such intervention did not take place: we estimated that a questionnaire for a control group would by itself influence the evaluations. The importance of a control group was also limited because of the very short time that elapsed between the 'before' and 'after' measurements.

We have attempted to understand the considerations of the entrepreneur in deciding to take advantage of assistance services. Our assumption is that the entrepreneur is rational and utilizes consultancy services on the basis of considerations similar to those that dictate the consumption of other products or services (Bennett et al., 2000). The consultancy services can be considered as purchasing knowledge and skill for the business. Entrepreneurs will only take advantage of the services if they evaluate that the expected benefit from the services is higher than the expected cost (at present values), provided they have complete information about the services.

The costs include the direct cost of the service (the price may be subsidized when the service is offered by the public sector) and the cost of transportation and time needed to reach the service and receive assistance, which constitutes a crucial factor in the acquisition of business assistance services (Henderson et al., 2000). These costs also include indirect expenses such as the hiring of a substitute at the business, loss of work due to the absence of the entrepreneur, the revelation of information (Westhead and Storey, 1996), etc.

In calculating the benefit, entrepreneurs estimate the expected contribution of the assistance to business parameters (profitability or any other parameter). This estimate is subjective and depends, among other factors, on the positive or negative experience entrepreneurs or others in their surroundings have had with regard to the benefit derived from the services. In general, the more the services focus on the specific problems of the business and provide entrepreneurs with a solution that can be assimilated, the greater the benefit that entrepreneurs can derive from the service. A major factor that may lead to relatively low expected benefits in relation to relatively high expected costs is a wrong identification of main problems: seeking assistance in issues that are less crucial than others may lead to a significant bias towards a high cost-efficiency ratio. Moreover, entrepreneurs, for the most part, juggle multiple problems simultaneously: the lack of an appropriate diagnosis with a clear identification of the main roots of the problems may lead to high costs by using too many expert consultants (Gibb, 1990).

The most common type of support services are consultancy and training. The type of consulting or training may be general or expert, in specific areas such as marketing, advertising and finance. In this study we have adopted the classification made by Schein (cited in Deakins, 1999: 181) into two types of consultants: the

expert consultant and the general consultant. Schein advocates a collaborative, non-expert role for the consultant, with a focus on process and helping the client define diagnostic interventions.

The expert consulting does not necessarily help entrepreneurs understand and identify the actual roots of the problems faced and the type of consulting that they truly require. Expert consulting may therefore actually increase the likelihood of entrepreneurs receiving inappropriate consulting (Deakins, 1999). The services of a diagnostic consultant who comes to the business can help raise the benefit/cost ratio for expert consulting at a later stage, since the diagnosis will increase the expected benefits from expert consultancy or training. The diagnostic consultant can, then, play a role in bridging the gap between supply and demand for expert assistance by helping the entrepreneurs identify their most crucial needs.

All the other alternatives, which require entrepreneurs to leave the business, are costly in terms of time and the need to commit in advance. Remoteness increases costs, and therefore, in order for entrepreneurs to acquire the services, they must estimate that they will benefit more than urban entrepreneurs.

The intervention approach tested in this experiment is therefore one of a public intervention through a diagnosis assistance at the business premises. As stated in our hypothesis, we believe that such assistance is expected to reduce the cost-efficiency of the remote SMEs by attaining better identification of problems, concentrating on the most acute ones and adapting the assistance to specific needs.

4. The Experiment

The experiment detailed below is intended to test the research hypothesis that refers to the discrepancy between supply and demand in the peripheral rural area and the efficiency of the pilot programme involving a diagnostic consultant who comes to the place of business in order to address this discrepancy, thus becoming an important component of the network of assistance services for SMEs in the rural area. The experiment was conducted in three regions in the State of Ceara in north-eastern Brazil: Ibiapaba, Quixeramobim and Baixo Jaguaribe.

The three regions are at a distance of about 200 to 350 km from the metropolitan urban centre of Fortaleza, which counts for about 3m of the 7.5m inhabitants of the state in 2000 (most data are based on the 'Anuario Estatístico do Ceara' issued once a year by IPLANCE (Instituto de Pesquisa e Estratégia Econômica do Ceará), at the Secretariat of Planning of the State). The second biggest cities after Fortaleza count for 100,000 to 200,000 inhabitants, and the distance from the regions to the closest of those cities is in most cases at least 100 km. The three regions have a much smaller population, and most of it is defined as rural: 307,000 in Ibiapaba, of which 49% are defined as 'urban' (72% in the state as a whole) and are spread over 10 towns of 5000 to 30,000 inhabitants each, 250,000 in the Quixeramobim region (51% urban in 7 towns), and 90,000 in the Jaguaribe region (50% urban in 5 towns). The income level in those regions is relatively low: approximately 30% of the workers receive a salary of at least one

minimum wage, as compared with a state average of 43 per cent. The share of industry in total gross regional product is low, between 4 per cent to 7 per cent, as compared with 40 per cent in the state (Bar-El and Schwartz, 2003).

The programme consists of a consultant who comes to the SMEs, uninvited, in keeping with the 'reach-out' approach. At this pilot stage, 37 businesses were selected for participation in the experiment, using criteria of size, type of economic activity and potential contribution to the economic development of the region. A few main characteristics of the firms are briefly described as follows:

Size: The average number of workers is 11, including 3 major types of enterprises: micro-enterprises, with 1 to 5 workers (51% of the firms included), small enterprises, with 6 to 20 workers (30%) and medium enterprises, with 21 to 40 workers (19%).

Type of activity: The biggest category of SMEs included in this study is food and drinks (43%), followed by ceramics, construction materials and metals (30%), textiles (11%) and others (16%).

Age: The biggest category of age of the enterprise is 1–5 years (40%), followed by 6–10 years (27%) and over 10 years (33%).

Market: 59% of the enterprises sell their product mainly to the consumer market, while 31% sell to intermediate producers, and the last 10% to others.

Growth: 70% of the enterprises consider themselves to be in a state of growth, while 30% are stable.

At the preliminary stage, the consultants asked the entrepreneurs if they were willing to receive such a consultancy, at no cost. Practically all businesses responded positively. Then they were asked about the problems they face and in which fields they think they need consultancy. At this stage they complete the preliminary ('before') questionnaire. The consultants were allocated up to 15 hours to study the situation of the enterprise, assist in diagnosing the problems and provide immediate on-the-spot recommendations whenever possible. At the conclusion of this process, the consultants wrote up a report, also within the guidelines of a diagnostic ('after') questionnaire, in which the main problems diagnosed along with the entrepreneur are summarized. The consultant also reports recommendations, including whether or not the entrepreneur should continue with consultancy services, and if so, in which specific areas and to what extent.

No control group was used, since the time elapsed between the two questionnaires ('before' and 'after') was quite short, up to a month, and therefore the changes in external conditions could be assumed as marginal.

5. The Empirical Test

5.1. The Remoteness Effect

Assistance programmes operated by SEBRAE, a public company for consulting and training, are available in these three regions. The company's main service centres are located in major cities in each region, usually at a distance of up to several dozen kilometres from the entrepreneur's place of activity. Under the

given transportation conditions, this generally implies that an entrepreneur would have to suffer the cost of spending an entire day out of his or her firm in order to benefit from the services offered.

The findings indicate that most businesses need consultancy services. Almost all enterprises confronted at least one problem and could actually benefit from consultancy services. Approximately one third of the businesses stated that they were in a state of inertia. In the preliminary questionnaire, the businesses were asked in detail about each of the following areas: finance, management, marketing, infrastructure, technology and production, personnel, planning and strategy, layout (physical conditions) and others. It was found that 75 per cent of the businesses evaluate that they encounter difficulties at least in three of the areas.

Despite the situation that emerged in the survey (in which virtually all business owners face difficulties, and nearly all of them have a need for consulting in a variety of areas) and although public services offer consulting at some distance, we found that almost none of the business owners actually took advantage of these services. In response to the question of whether they were interested in consultancy services, virtually all the businesses responded in the affirmative. Although such services are offered at heavily subsidized costs or at no cost throughout the region, not all firms that do not have an access problem (firms located in the urban centre) actually take advantage of them, because of the indirect cost they may involve: time spent by the entrepreneur with the consultants, exposure of the firm's records to a formal public organization (especially in the prevailing conditions where most of the small firms are 'informal' and do not pay any taxes), fear of leaking information to competitors, etc. The expressed willingness of entrepreneurs to accept consultancy services should therefore be considered in the context of such costs.

These findings support the hypothesis regarding the existence of a discrepancy between supply and demand. It could be argued that the lack of use of existing consultancy programmes may be explained by a lack of belief of the entrepreneurs in the benefits of these programmes. However, when the consulting programme was presented to them, and the consultants coming to their premises conveyed their willingness to help them identify their problems, the business owners expressed willingness to take advantage of the programme. In sum, we have a situation where almost all businesses have problems, almost no business used the supply of assistance provided by the public institution, and almost all businesses expressed willingness to use such assistance. This shows that the incompatibility between demand and supply can be primarily attributed to a lack of access (as expressed by distance or by costs of access, or by insufficient information). Although no businesses in central urban areas (with easy access to assistance services) were surveyed as a control group, they certainly use such services at higher rates: evidence for that has been provided by directors of the SEBRAE representations in all regions surveyed.

This conclusion is supported by a survey recently conducted among remote SMEs in the three regions. Of the businesses 55 per cent said that they had never asked for assistance because it was provided too far away from them; 7 per cent said the reason was that they did not believe such assistance would help them,

and only a small minority of 2 per cent said that the reason was that services came at a direct cost that was too high.

Another dimension to the discrepancy between demand and supply in conditions of remoteness is explained by the existence of a multiplicity of problems: when a firm encounters a variety of problems for which it seeks a solution in specialist consultancy, the cost of remoteness is multiplied. Furthermore, we show later that this cost may be increased by false identification of the problems.

Data for the 37 businesses show that a majority indicated more than one factor as an obstacle to their development. The average number of problems per business mentioned in the preliminary questionnaire was 2.9, with a standard deviation of 1.5. At a later stage, after the visit by the consultants and help with implementation of problem diagnosis, the entrepreneurs were asked once again about the problems facing them. At this stage, nearly all the respondents specified more than one problem, and the average number of problems specified by each entrepreneur reached 3.4 out of the 9 factors mentioned, with a standard deviation of 1.1 (Table 1). The difference between the two averages, before and after the diagnostic stage with the assistance of the consultants, seems to indicate an increased awareness of the existence of new problems not identified initially. This can be attributed to the presence of the consultant, but also to the active role played: the role of the consultant was primarily to assist the entrepreneur to identify the main problems, but also to increase the entrepreneur's trust, as well as heighten awareness to the existence of the services and their benefits, and whenever possible, to help with immediate actions for the resolution of acute problems.

The multiplicity of problems, as expressed by the entrepreneurs before any intervention, and even more after the intervention, amplifies the negative effect of remoteness: the cost of 'distance' is high, and it is multiplied by the number of fields in which consultancy is needed. This is an additional effect to the discrepancy between demand and supply in conditions of remoteness.

Table 1. Businesses Encountering Difficulties in Each of the Areas at the Preliminary ('Before') and Diagnostic ('After') Stages^a

	Percentages		Severity Category	
	Preliminary	Diagnostic	Preliminary	Diagnostic
Finance	59	51	High	High
Marketing	57	76	High	High
Infrastructure	54	11	High	Low
Management	38	73	Medium	High
Labour force	38	11	Medium	Low
Production and technology	16	46	Low	Medium
Planning and strategy	0	46	Low	Medium
Layout	3	22	Low	Low
Other	24	8	–	–

Source: based on the field study, 2001.

Notes: ^a Percentages of the total sample ($n = 37$), and severity category (high: over 50%, medium: between 25% and 50%, low: less than 25%).

5.2. The Importance of Diagnosis Consultancy

The hypothesis in the study is that businesses find it difficult to diagnose the factors that hamper their efficient operation. They fail to identify some of the factors or attribute difficulties to the wrong factors. The likely result is that against the high costs of remoteness, they may receive low benefits from consultancy due to the fact that they may seek assistance in wrong fields. The conclusion would therefore be that a diagnosis consultancy (as opposed to expert consultancy in specific fields) could contribute to the diminution of the cost/efficiency ratio of the available expert consultancy services and lead to a better match between demand and supply.

We test now the hypothesis that the diagnosis consultancy reveals the existence of an identification problem: the entrepreneur is not aware of all the problems facing the business, and the problems that are identified without the aid of a consultant are not necessarily the central problems in the business. We shall next test on an aggregate basis the extent of false or true identification of main problems by the entrepreneurs, then we shall present an analysis based on false/true identification of problems on an individual entrepreneur basis, and the possible relations with the characteristics of the business.

5.2.1. False Identification of Main Problems The results presented in Table 1 show a rather drastic change in the ranking of the main problems faced by entrepreneurs after receiving the diagnostic consultancy of up to 15 hours. The classification into main categories of severity as presented in the two right columns shows changes in most problems. The level of severity of a problem was classified as 'high' if more than 50% of the businesses mentioned it, as 'medium' for 25% to 50%, and as 'low' for less than 25%.

The results show that two important factors remain defined as problematic by a large majority of entrepreneurs (classified as 'high' severity) after the diagnostic consultancy: finance and marketing, with an increasing weight for the marketing problem (mentioned by 76% of entrepreneurs after the diagnosis, as compared with 57% before the diagnosis). However, the factor of management gained a much higher level of awareness, and after diagnosis is classified in the highest category.

An interesting result of the diagnostic intervention is an apparent shift of the entrepreneurs from blaming factors that do not depend on them, such as infrastructure and the quality of the labour force in the region, to a higher level of awareness of factors related to the professional aspects of their own activity, such as the production process (including the technologies used), business strategy and planning, layout, and as mentioned before, above all else, management.

5.2.2. False Positive and False Negative: Analysis on an Individual Basis The analysis, on an individual basis, checks the number of false identifications of problems each entrepreneur made, when false or true identification is defined for each one of the 8 areas (finance, marketing, etc.) as follows:

True positive: the entrepreneur responded 'yes' to the existence of a problem in a given area, and the response remained unchanged after the diagnosis.

True negative: the entrepreneur responded 'no' to the existence of a problem, and the response remained unchanged after the diagnosis.

False positive: the entrepreneur responded 'yes' to the existence of a problem in a given area, but changed the response to 'no' after the diagnosis (reached the conclusion that this was not a real problem).

False negative: the entrepreneur responded 'no' to the existence of a problem, but changed the response after the diagnosis (the diagnosis helped the entrepreneurs identify a problem of which they were not previously aware).

Consequently, each entrepreneur could make between 0 to 8 false or true identifications of a problem before receiving help; this is, of course, assuming that the right identification is the one made after diagnosis. Needless to say, we cannot be sure that the identification made after the consultancy is actually the right one, but we can assume that the chances for that are higher since it was made after more meticulous analysis with professional support. The aggregate results show a very gloomy picture: out of the 37 entrepreneurs, only one made no false identifications, and only one made one false identification. 43 per cent made 2 or 3 false identifications, and 51 per cent made more than 3 false identifications. This means that the diagnosis consultancy contributed to practically all entrepreneurs for a proper identification of their problems and therefore on the type of expert consultancy that may be appropriate to them.

Table 2 shows the specific distribution of the contribution of the diagnosis by area. In the last three rows the identification of problems made by the entrepreneur before the diagnosis was shown to be correct after the diagnostic stage was carried out (correctly identified an existing problem or correctly identified the absence of a specific problem). In the first three rows, an error is made in identifying the problem (identification of a nonexistent problem or failure to identify an existing problem).

The last column of the table showing the average identification of problems points to a quite alarming picture: for each case of identification of a problem, the chances for a false identification are 43%, which is not very far from the expected 50% probability in case of a random identification. As each entrepreneur had to make an identification in 8 areas, the chances of making a mistake

Table 2. Diagnostic Indices: Distribution of Entrepreneurs According to the Accuracy of Problem Identification 'Before' as Compared with the Diagnosis 'After' for Each Area^a

	<i>Finance</i>	<i>Marketing</i>	<i>Management</i>	<i>Labour Force</i>	<i>Infrastructure</i>	<i>Production and Technology</i>	<i>Planning and Strategy</i>	<i>Layout</i>	<i>Average</i>
False identification	24	57	57	38	54	40	46	24	43
False positive	16	19	11	32	49	5	0	2	17
False negative	8	38	46	5	5	35	49	22	26
True identification	76	43	43	63	46	60	54	76	57
True positive	44	38	27	5	5	11	0	0	16
True negative	32	5	16	58	41	49	54	76	41
Total	100	100	100	100	100	100	100	100	100

Source: based on the field study, 2001.

Note: ^a Percent of total (n = 37).

are quite high, as was shown above. This result means that on the average, each entrepreneur made 3.4 false evaluations (out of a total of 8 evaluations for 8 areas) when trying to identify the main problems. Most of the mistakes are of the 'false-negative' type, indicating the lack of awareness of existing problems.

The mistake of failing to identify an existing problem ('false-negative') is frequent, particularly in the areas of management, planning and strategy: close to half of the entrepreneurs made this mistake and without the diagnosis would not identify these factors as detrimental to their functioning or seek assistance from systems that are part of the available supply. There is also a high rate of under-identification in the areas of marketing, production and technology.

The false positive type of mistake (defining an area as problematic before the diagnostic intervention, but not after it) is mostly frequent for infrastructure and labour force. This does not, of course, mean that the entrepreneur sees a problem where none exists: it is quite possible that the entrepreneur has encountered problems such as a shortage of appropriate labour force or unavailability of appropriate infrastructure. The diagnosis carried out through the consultant enables the entrepreneur to understand in which cases the symptoms identified actually indicate the existence of a problematic factor in another area. It is also possible that after receiving consultancy services, entrepreneurs focus more on problems that are viewed to be within their power to solve, as opposed to problems over which they have no control. This introspective attitude towards the problems could certainly enable the entrepreneur to channel energies in more efficient directions.

5.2.3. Relations between False Identification and Firm Characteristics We tried to reveal if differences exist in the level of false identification between enterprises of different types (by branch, size, etc.). We also tried to understand whether certain types of enterprises have a higher tendency for false identification of problems in specific areas. The results are in most cases statistically insignificant. This can be the result of an insufficient database or may indicate that the problems and the need for a diagnosis consultancy are valid for all types of enterprises.

For the two variables measured in quantitative terms, number of workers and age of firm, a Pearson correlation coefficient was calculated with the number of false identifications made by the entrepreneur. The correlation coefficient with age is close to zero, but that of the number of workers, with a logarithmic transformation, was quite high, 0.44 (significant at a 0.006 level). This result can be interpreted as a situation where quite small firms can still make a relatively good judgment of the problems they face, while bigger firms find it more difficult to assess the special problems facing economic activity of a wider volume. If this interpretation is correct, it implies the possible existence of a rather important constraint on growth of SMEs in remote conditions: for them growth may mean encountering types of problems that they can hardly identify.

For the characteristics of firms measured in terms of categories (economic branch, market and growth), a *t*-test was calculated for average numbers of false identifications by subgroups of firms. This was also done separately for false

positive and false negative identifications. The results in Table 3 point to differences between several subgroups of firms, but none was found statistically significant (therefore *t* values and significance levels were not indicated in the table). We should however indicate the higher (although not statistically significant) level of false positive cases in growing firms as compared with stable firms, in full coherence with the positive correlation found above between the number of workers and the number of false identifications.

We may conclude this analysis of false identification of problems by stating that the consultancy experiment was beneficial in the diagnosis and ranking of problems. It also helped the entrepreneurs change their course of thinking, from attaching great importance to external factors beyond their control such as labour force and infrastructure to factors that they can change, such as marketing and particularly management. Even the issue of finance, which was still found to be a source of difficulty, dropped in relative weight, after management and marketing. After the consulting, the entrepreneurs realized that management is an essential factor, as is marketing, and that these are necessary conditions for their business development.

6. Summary and Conclusions

This experiment pointed to one of the problems troubling policy makers who operate assistance programmes for SMEs in rural areas in peripheral regions. It appears that in many cases, despite the existence of a varied supply of assistance services for SMEs, and despite the fact that these businesses are in need of the business services, a discrepancy exists between supply and demand.

The experiment in this study indeed revealed the existence of hidden demand on the part of the SMEs, although they did not turn to existing consultancy services. We were also able to support the hypothesis regarding the causes of the discrepancy between supply and demand. We demonstrated that the businesses

Table 3. Average Number of False Identification of Problems by Subgroups of Firms

<i>Sub-groups</i>	<i>False Identification</i>	<i>False Positive</i>	<i>False Negative</i>
Total	3.4	1.3	2.1
Economic activity			
Food and drinks	3.4	1.3	2.1
Others	3.4	1.3	2.1
Growth status			
Stable	3.3	1.0	2.3
Growing	3.5	1.5	2.0
Market			
Intermediates	3.6	1.6	2.0
Consumers	3.2	1.4	1.8
Source of raw materials			
Own	3.3	2.1	1.2
All or part out of the region	3.4	1.2	2.2

indeed suffer from multiple problems, that entrepreneurs find it difficult to diagnose their problems without assistance, and that as a result they may seek the wrong type of consulting. Such a situation may also be experienced by SMEs that are not defined as 'remote'. However, we have shown that remote SMEs are more likely to suffer from those problems and, most importantly, that the cost of problems is higher in remote conditions.

The experiment conducted as part of this study examined the ability to bridge this discrepancy between supply and demand, using a pilot programme operated in three regions in the State of Ceara in Brazil. The programme tested the option of a reach-out approach, focused on rapid diagnosis-oriented intervention: consultants were sent to the place of the businesses to help identify the problems and define the necessary type of consulting. This type of programme leads to an increase in the benefit-cost ratio, through more efficient identification of the main problems and needs, decreasing the 'cost' of remoteness and consequently reducing the incompatibility between demand and supply of specific assistance programmes. This approach of diagnosis intervention has been found also by Devins (1999) as efficient in increasing the added value of existing business support programmes in disadvantaged areas.

The results of this study can help in the elaboration of policy measures to promote the competitive ability of SMEs in remote rural regions, and facilitate their integration into national economic growth.

Note

1. The terms 'remote', 'rural' or 'peripheral' areas are used here interchangeably to indicate SMEs that do not have easy access to regular consulting and training services that are generally offered in central urban areas.

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Les services de conseil ciblé en tant qu'instrument de développement des PME isolées

Le dossier brésilien – Dafna Schwartz et Raphael Bar-El

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Cet article soutient que la fourniture traditionnelle de programmes d'assistance publique aux petites et moyennes entreprises (PME) implantées dans les régions reculées n'atteint pas les objectifs fixés et ne répond pas aux demandes « cachées ». Une expérience a été conduite auprès de PME qui ne faisaient pas appel aux programmes de conseil disponibles dans trois régions reculées de l'Etat de Ceara au Brésil: un consultant a été dépêché auprès de chacune d'entre elles dans le cadre d'une mission de diagnostic. Conclusions: il existe bel et bien une demande « cachée », dans la mesure où la plupart des entreprises ont besoin de conseils, mais ne font pas appel aux services disponibles et évaluent généralement de manière erronée les difficultés auxquelles elles sont confrontées et la meilleure manière de hiérarchiser les problèmes identifiés. Après avoir bénéficié d'un conseil et d'un diagnostic à court terme, ces entreprises se sont avérées mieux à même d'évaluer leurs problèmes et, par-là même, d'utiliser plus efficacement les services de conseil professionnel disponibles.

Mots clés: Brésil; conseil; entrepreneuriat; politique publique; développement régional, reculé; rural; PME

Servicios de consultoría seleccionados como un instrumento para el fomento de PMYE remotas

Un caso brasileño – Dafna Schwartz y Raphael Bar-El

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Este artículo sostiene que el suministro tradicional de programas de apoyo público para las pequeñas y medianas empresas (PYME) en regiones remotas no logra su objetivo, ya que no tiene una "demanda oculta". Se llevó a cabo un experimento en las PYME que no utilizaban los programas de consultoría disponibles en tres regiones remotas del estado de Ceará en el NE de Brasil; un consultor fue enviado a cada empresa en una misión de diagnóstico. Los resultados indican que existe una "demanda oculta", en el sentido de que la mayoría de las empresas necesitan asesoramiento, pero que no solicitan los servicios disponibles y que por regla general no analizan correctamente los problemas que afrontan ni priorizan los puntos en cuestión. Después de beneficiarse de un asesoramiento a corto plazo están en situación de solventar los problemas y, por lo tanto, sacar el máximo partido de los servicios de consultoría profesional disponibles.

Palabras claves: Brasil; consultoría; iniciativa empresarial; política pública; fomento regional; remoto; rural; PYME.

Gezielte Beratungsdienste als Mittel zur Entwicklung entlegener mittelständischer Betriebe

Eine Fallstudie aus Brasilien – Dafna Schwartz und Raphael Bar-El

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Dieser Beitrag stellt die These auf, dass die traditionelle Bereitstellung öffentlicher Unterstützungsprogramme für mittelständische Unternehmen an entfernt gelegenen Standorten ihre Zielsetzung nicht erfüllt: ihr wird nämlich nicht durch eine „versteckte“ Nachfrage entsprochen. Es wurde ein Experiment in mittelständischen Unternehmen in drei entfernt gelagerten Regionen des Landes Ceara in Brasilien, die nicht die verfügbaren Beratungsprogramme nutzten, durchgeführt: ein Berater wurde zu jedem der Unternehmen zwecks einer Diagnose entsendet. Die Ergebnisse weisen darauf hin, dass zwar im weiteren Sinne eine „versteckte Nachfrage“ für Beratungsdienste seitens des Großteils der Unternehmen besteht, aber nicht die verfügbaren Dienste beantragt bzw. in Anspruch genommen werden und dass diese Unternehmen generell bei ihren Bewertungen der anstehenden Probleme und der Festlegung der Prioritäten hinsichtlich der ermittelten Probleme falsch liegen. Nach der Inanspruchnahme einer kurzfristigen diagnostischen Beratung waren sie besser in der Lage, Probleme zu bewerten, und somit die verfügbaren professionellen Beratungsdienste wirksamer zu nutzen.

Schlagwörter: Brasilien, Beratung, Unternehmerschaft, öffentliche Politik, regionale Entwicklung, entlegen, ländlich, mittelständischer Betrieb