



Camera di Commercio, Industria, Artigianato e Agricoltura di Cagliari

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Report on the

**"Negative Management Differential
as perceived by entrepreneurs
of the Province of Cagliari"**



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*Research edited by Consorzio Cieso
Completed on November 2002*



1. General Comments - Introduction

1.1. The fact that islands are affected by significant social and economic handicaps may be considered self evident. However, the data and tools needed to assess – at least in broad terms – the nature and extent of these handicaps are scarce and little used.

So while none deny that island status means increased costs for island-based enterprises, some believe that this situation may be ranked as one type of various possible “external diseconomies”. Thus, they do not attribute particular significance to it, still less the importance it has for those directly concerned, the inhabitants of the Islands who every day bear the brunt of insularity.

1.2. Recently, moreover, insularity has been recognised as the cause of long-term structural social and economic handicaps. When the Treaty of the European Union was revised in Amsterdam in 1997, Article 158 was also amended. This article addresses the issues of social and economic cohesion. An additional clause was inserted which places the islands of the European Union on the same level as other areas with permanent development lags due to their specific social and economic characteristics.

The revised Article 158 of the Treaty of the European Union now reads as follows: “In order to promote its overall harmonious development, the Community shall develop and pursue its actions leading to the strengthening of its economic and social cohesion.

In particular, the Community shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions or islands, including rural areas.”



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Thus it is evident that the regions and areas falling under the definition of Article 158 are unable to guarantee for their citizens and businesses equal terms vis-à-vis other regions of the European Union.

Thus, the Treaty of the European Union today formally recognises that the citizens, businesses and, in general, the whole social and economic environment of the islands suffer from a number of handicaps due to external or environmental conditions. The recognition of the disparities affecting island players implies an obligation for EU institutions to implement measures to re-balance the situation, guaranteeing equal opportunities through actions able compensate for the handicaps of islands.

1.3. More than four years from the coming into force of the Amsterdam amendments to the European Union Treaty (on 1 May 1998), the amended Article 158 has not yet been implemented, perhaps because EU cohesion policy – for the period 2000-2006 – was drawn up at a time when this change could not yet be enforced.

However, in the light of the requirement to further revise the Treaties to deepen the process of European integration, also in view of the enlargement of the EU to the countries of Eastern Europe, a Convention has been set up for the reform of the EU Treaties, while the European institutions themselves (European Parliament, Council of Europe, European Commission) together with those of the Member States, are engaged in an on-going review of the various issues and concerns of the Union.

Also under discussion are the regulations for social and economic cohesion policy, hence of the possibility of renewed recognition of the permanent structural handicaps which mark the islands of the



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European Union.

Requests for recognition of disadvantaged status are made based on a variety of factors: mountain areas, low population density, outermost regions, areas with rigid climates etc. These requests refer to areas that differ considerably as to size, population and other elements.

There is a risk that different situations and disadvantages may be jumbled together, preventing targeted choices. When assessing the type and nature of the handicaps we should consider the perception of those directly concerned, in order to better illustrate them to decision makers.

1.4. Fully aware of the legislative revision under way in the EU and of the need to ensure renewed recognition of the permanent structural handicaps of islands, the Chamber of Commerce, Industry, Handicrafts and Agriculture of Cagliari has launched a research programme to assess the perception of the entrepreneurs of the Province of Cagliari of some of the fundamental problems connected with insularity.

Indeed, businesspeople are the prime referents of the Chamber since industry associations form its institutional base. On the other hand, as is well known, the true “mission” of every Chamber is to support the local business environment. For the Cagliari Chamber, this means addressing the needs of the entrepreneurs of the province of Cagliari.

Local entrepreneurs are particularly interested in measures for the reduction of disparities with their competitors. Therefore, they are directly and deeply involved in all actions pertaining to the recognition of Article 158.

We at the Cagliari Chamber of Commerce, Industry, Handicrafts and



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Agriculture find it very relevant to assess perception by local entrepreneurs of the problem areas under consideration. This was indeed the rationale for our survey.

And there is yet another reason for the commitment of the Cagliari Chamber: on 14 – 15 November 2002 the Cagliari CCI hosted and organised an important international meeting: FORUM Sardegna 2002 on the theme *“SMEs and island diseconomies: the role of the Chambers of Commerce and Industry in the framework of the European Union”*.

It was felt essential to contribute to the success of this meeting also by reporting on the results of our survey.



2. Nature and Characteristics of the Survey

2.1. In the last paragraphs of Section 1 we highlighted the main reasons which led the Cagliari Chamber to implement the research project whose results are presented here.

We should now outline the aims of this research, that is, what basically did we hope to learn from it?

These objectives were:

- a) to what degree do local businesspeople perceive the existence of handicaps affecting local enterprises due to the specific conditions present in Sardinia;
- b) to what degree do local businesspeople perceive the existence of handicaps affecting local enterprises due exclusively to their location on an island;
- c) attribution of a percentage value (purely indicative) to the overall disadvantage;
- d) identification of the most and least penalised corporate functions;
- e) assessment of the extra cost for each function resulting from the general social and economic conditions present in Sardinia;
- f) assessment of the extra cost for each function resulting from the island status of Sardinia.

2.2. To carry out our survey, we prepared a questionnaire, a copy of which is attached to this document.

The questionnaire also addressed problems of a fair degree of complexity, such as the negative management differential, or the main



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reference environment, and others.

As was to be expected, faced with these questions, not all interviewees showed the same degree of readiness and knowledge of the facts. However, despite some gaps in the returned questionnaires we did collect sufficient complete responses to validate our survey.

We should state from the outset (we shall be providing more detailed information on this point further on) that the basic aims of the research project were successfully achieved. Moreover, we acquired important information not hitherto available.

2.3. Distribution of the questionnaire began in August 2002, but was concluded only in October of the same year. In this period, it was handed out to 150 entrepreneurs. The questionnaires filled in and returned to researchers were 120. Of these, 20 were judged not usable as a result of obvious errors or because only partially completed.

Thus, evaluation of results was based on the 100 questionnaires correctly completed.

Interviewees were local entrepreneurs of the Province of Cagliari, classified as Manufacturers (under letter “D” in the classification of economic activities used by ISTAT).

In more detail, compilers belonged to the following sub-groups:

DA - Food, beverage and tobacco industries;

DB - Textile and clothing industries;

DC - Tanning, leather products, leather and assimilated industries;

DD - Lumber and wood products industries;



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- DE - Production of paper paste, paper and paper products; printing and publishing;
- DF - Coke production, oil refineries, treatment of nuclear fuels;
- DG - Production of chemical products and synthetic and artificial fibres;
- DH - Production of rubber articles and plastic materials;
- DI - Products from the processing of non-metal-bearing ore;
- DJ - Production of metal and metal products;
- DK - Production of machinery and mechanical equipment, including installation, assembly, repair and maintenance;
- DL - Production of electrical machinery and electrical and optical equipment;
- DM - Production of vehicles;
- DN - Other manufacturing industries.

We singled out manufacturing companies because it is well-known that the manufacturing industry suffers to greater degree the handicaps associated with local social and economic conditions.

We believe that the results of our survey are broadly applicable to the whole of Sardinia, although we interviewed only companies in the Province of Cagliari, the area of competence of the Cagliari CCI.

Therefore, in illustrating the results obtained, we shall refer to Sardinia as a whole.

2.4. The research project was sponsored by the Cagliari CCI, which appointed Prof. Giuseppe Usai, professor of economics and business studies at the University of Cagliari, as project director and co-ordinator.

The project was implemented primarily with the assistance of staff from the Cagliari CCI, in particular General Secretary Mr. Paolo Solinas and Ms.



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Amitrano and Tocco. The President, Mr. Romano Mambrini and the Chamber directors were kept constantly updated on progress made.

The following industry associations also provided a valuable contribution, by helping in the distribution of the questionnaire to some of their members:

- Industrialists' Association of the Province of Cagliari;
- API Sarda - Cagliari;
- Craft Sector Association of the Province of Cagliari,
- CNA;
- National Craft Sector Association (Confartigianato).

An important role was also played by *Consorzio Cieso* which handled 50 questionnaires and was responsible for data processing and the collation of results.

As regards results obtained, it should be noted firstly that this research project had very ambitious objectives. Indeed, on the one hand, we needed to refer to corporate statistics and analytical accounting data from Sardinian SMEs, which often do not have this kind of data, on the other, we also needed comparable data pertaining to their mainland competitors.

This second aspect, that is lack of awareness or information, was almost total as regards some points (overall cost borne by competitors on which some further details are provided in chapter 5), and was significant also for other issues.

However, it should also be noted that the Authors of this research project were well aware of these problem areas, but felt they should not pass up the opportunity to ascertain any impressions or thoughts which they might be able to obtain, and did in fact obtain.



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Achieving our ambitious project aims was made more difficult by a number of operational problems, not least the fact that the survey began right at the start of the summer holidays.

On the other hand, the nature and purpose of the project meant that it required intense preparation and, at the same time, strong commitment on the part of interviewers, but that took place only in part.

It is also true – as stated previously – that some of the interviewees, in general terms, found a certain difficulty in understanding the concepts they were asked to examine and this obviously led to some degree of uncertainty in their replies. We must furthermore take into consideration the well known fact that entrepreneurs, generally speaking, feel that they do not have much time to dedicate to collateral activities with respect to their more pressing material commitments and haste certainly did not favour the detailed content of their replies.

Notwithstanding all the above points, this research project, as will become clear from perusal of the following pages, provided much useful information, not only as to the specific objectives of the research itself, but also as regards the broader aims of the Cagliari CCI.



3. Theoretical and conceptual points

3.1. For better interpretation of the results of our survey, we present a brief overview of the conceptual categories used in preparing the questionnaire.

For reasons of brevity, we will define in particular specialised terms and concepts used.

3.1.1. Local enterprises from Sardinia

This expression refers to companies located in Sardinia, belonging to entrepreneurs based on the Island and employing local human resources.

As to size, the companies are all SMEs and more precisely enterprises which may be classified as “micro”, “small” and “medium-sized” in the definition used by the European Union on the basis of the contents of the Recommendation of 3 April 1996 (OJ L 107 of 30 April 1996). In the recommendation quoted, the “micro enterprise” is a business employing less than 10 workers, and should not be confused with the “craft sector enterprise”. The “small enterprise” employs less than 50 workers, has an annual turnover not exceeding 7 million Euro and may be considered independent (we consider “independent” those enterprises whose capital and voting rights are not held in the amount of 25% or more by another enterprise, or, jointly, by several enterprises that cannot be defined as small or medium). A “medium-sized enterprise” has less than 250 workers, an annual turnover not exceeding 40 million Euro or a total annual balance not exceeding 27 million Euro and is independent.

Enterprises in these groups are almost 100% of manufacturing companies in Sardinia.



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3.1.2. Environment

For each enterprise, we may distinguish an internal and external sphere, the latter being the enterprise environment. It consists overall of a number of variables falling within the traditional concept of *market* (competitors, suppliers, customers, finance) and of any other variables relevant to the enterprise (cultural, political, demographic, social and economic, infrastructure, ecological, administrative variables etc.).

Using a more technical definition, the environment is the complex of constraints, limits and opportunities external to the enterprise itself but which are relevant to it.

3.1.3. Primary reference environment and general reference environment

With the aim of deepening analysis of the influence of the environment on the enterprise, business theory distinguishes between primary reference environment and the general reference environment.

This latter expression covers the set of constraints, limits and opportunities of general and broader scope, referred specifically to political and institutional variables and those originating in statutory sovereignty.

If the term “reference environment” indicates the constraints, limits and opportunities deriving from the local environment in which the enterprise is set or rooted, we are talking about its “primary reference environment”. This covers primarily geographical, economic, infrastructure and demographic elements.

Based on the concepts mentioned above, the primary reference environment for Sardinian enterprises is the Island itself while the general reference environment is Italy and, in a wider sense, the European Union.



3.1.4. The influence of environmental conditions on each enterprise based on its individual “filtering capacity”

Each enterprise establishes a unique relationship with its primary and general reference environments. Indeed, we might say that no enterprise “absorbs” passively from the environment the constraints, limits and opportunities it offers. Rather, each company has a special “boundary function” (“filtering”) which means that it selects environmental variables in relation to its own requirements, absorbing the positive ones (opportunities) and rejecting the negative (threats).

In this way, depending on its individual selection and filtering capacity, each enterprise obtains an exclusive, totally individual result which may contain prevalently, or exclusively, opportunities or, conversely, negative constraints and limits, or yet again, as usually occurs, a unique mixture of both.

3.1.5. Quantitative differentiation of environmental conditions

The exclusive relation between each enterprise and the environmental conditions mentioned at 3.1.4. above, is particularly relevant for our research project: since the perception of environmental conditions is linked to the personal perceptions of each entrepreneur and since these perceptions are obviously linked to individual requirements, it was inevitable that economic-based replies would differ significantly, and in fact they did.

3.1.6. Investment costs and management costs

Any business start-up plan involves “figure-crunching”, that is exploring investment and management costs.



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Investment costs are incurred to establish an operational structure, that is the plant/offices etc. needed for conducting company activity.

So here we are talking about “one-off” costs, that is prior to start-up, or else expenditure covering enlargement, restructuring, special maintenance or similar.

Management costs on the other hand are those connected with the performance of business activity, that is the running of the company and the on-going performance of its operations. These are typically recurring costs because they involve management, that is all those activities performed throughout the life of the company.

3.1.7. Corporate management functions

These recurring economic operations, or corporate activities, form corporate *management* which may be and is assessed on the basis of various elements (material, patrimonial, financial, economic, etc.).

From a practical point of view, management is divided into segments of economic operations or activities, identified so as to group together relatively similar activities.

So it is possible to identify corporate functions which, beyond standard names and generalisations, always highlight a number of distinctive features characterising each enterprise.

To give some examples, we might point out that each enterprise has its own financial function, that is a complex of activities covering definition of financial requirements, access to credit and “management” of financial resources.

In much the same way, each enterprise has a procurement function, a



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sales function, etc.

3.1.8. Management functions of the manufacturing company

As highlighted above, each enterprise has its own specific “system” of management functions geared to its specific activities. However, we can still identify a set of management functions which, in the normal run of things, can be found in almost all enterprises belonging to the same industry.

In particular with reference to manufacturing enterprises, to which – as already stated – this research project is directed, management functions may be summarised as follows:

- financial: the set of activities including analysis of funding requirements, identification of financing sources and the management of financial resources available to the enterprise;
- procurement of supplies and materials: this corporate department ensures that the companies receive the supplies and materials (and any other procurable item) needed for their operations, of the desired quantity and quality, at an acceptable cost, delivered to intended destination and with lead times in line with production schedules;
- management of supplies and material stocks: this function involves the evaluation and identification of the optimum level of supplies and materials to be held in stock so as to avoid, on the one hand, overestimation and unproductive freezing of capital and, on the other, underestimation leading to even greater costs generated by stoppage of the production chain;
- production: the central aspect of this function is the processing of raw



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materials into finished products. Over the last few decades this function has undergone radical transformation due to impressive development of new technological tools which has touched on several aspects of the production processes;

- management of stocks of finished products: this function aims at avoiding the interruption of product distribution flow, that is it ensures that purchase orders are promptly met;
- distribution or marketing: this is a management activity which lines up production with customer requirements. It aims at “orienting” other activities to new and better methods of “solving customers’ problems”;
- accounting and administration: this is a subordinate function with respect to the others: it records economic, financial and patrimonial management items, and fulfils legal, fiscal and administrative obligations and any type of tax requirement.

3.1.9. General Negative management differential

Every enterprise, insofar as it is rooted in a specific environment (of primary or general reference) has a configuration which springs from the combination of internal characteristics and those of its own specific environment.

Hence potentially every enterprise, since it must “come to terms” with its own system of constraints, limits and opportunities shaped by the environment, finds in the area external to it an important “base” for its specific competitive “edge” or “disadvantage”: a given enterprise might well limit external negative effects, or select positive external factors. But, obviously, a company rooted in a favourable environment, may – all other conditions being equal – achieve success, whereas an enterprise rooted in



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a highly unfavourable environment – all other elements being equal – is most likely doomed to failure.

A hostile environment has a negative impact on the enterprise because negative external conditions emerge as greater costs, or lesser earnings, with respect to enterprise operations.

In technical terms, these greater costs (or lesser earnings) which the enterprise faces as a result of negative environmental conditions, make up the “negative management differential” which, hereinafter, is indicated with the acronym “NMD”.

These negative conditions may be many and varied and they are so closely intermingled as to make it very difficult to distinguish the various elements.

For example, there is a set of structural handicaps common to the Regions in Southern Italy in which historical reasons, infrastructure shortfall, demographic factors, the effects of peripherality and yet others, all combined together, determine, for the enterprises situated therein, an NMD which cannot be attributed to any one specific cause.

In other cases, greater costs and lesser earnings may arguably be attributed to a single negative cause and thus NMD may be identified specifically. This occurs, for example, when the root cause of greater costs and lesser earnings can be laid at the door of a shortfall in infrastructure.

One further warning: it must be noted that the negative elements identified do not come to the fore so much at the time of initial enterprise set up, but rather during its operation. This is the reason why we speak of NMD, i.e. we refer specifically to management.

In this type of situation, therefore, grants for enterprise start-up, or



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“soft” loans for investment do not provide a solution to the problem.

NMD may be such that in all enterprise functions, or in many of them, greater costs are determined (or lesser earnings emerge in the commercial distribution phase). In some cases, on the other hand, NMD operates exclusively or mainly with reference to one or a few functions.

To give an example, if NMD is determined by more than one cause in all probability the negative conditions will refer to all or to many functions, whereas if there is one cause only, greater costs could accrue with respect to one or few functions. The use of the conditional here must be interpreted as indicating that there are cases in which one negative circumstance alone may influence many functions.

3.1.10. Negative differential specifically caused by island status

One major cause of greater costs (or lesser earnings) which stands alone, that is which alone determines negative management differential, is insularity, or island status. Hereinafter to indicate this we shall use the term “NMD deriving from island status”.

At the outset we must point out that insularity, based on the comments in the preceding paragraph, covers at one and the same time all enterprise functions because it is a source of competitive handicaps. Indeed, island status does not only mean increased transportation costs, but also the inadequacies of the local capital market, the internal communications network, internal demand (lower income), the infrastructure system, because the infrastructure requirements of an island are by and large greater than those of non-island areas, etc.

In effect, NMD deriving from island status may (and in many cases this



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does in fact occur) combine with general NMD, perhaps taking on a total significance for some functions: in this way, an island of southern Italy tends not only to suffer the same handicaps as other regions of the South and thus face similar NMD in general terms, but it also has to combat the structural and permanent handicaps deriving from island status. Thus in this case NMD deriving from island status combines to a certain degree with general NMD, extending, or still better, worsening its effects more than proportionately.



4. Analysis of direct responses

4.1. The heading of this chapter aims at highlighting the fact that the analysis proposed aims at presenting replies to the questionnaire in exactly the same way as they were provided by interviewees. In other words, in this chapter no attempt is made to analyse or interpret replies, the aim being to provide a faithful, schematic view of the replies as obtained.

In this perspective, we also attempted to limit data processing as far as possible: the only processing felt to be essential was aimed at formulating clear, meaningful data and information. At the same time, it was necessary to indicate figures, averages and percentages pertaining to the replies obtained, but this compromised in no way the direct and immediate perception of the replies provided by interviewees.

4.2. The first question was: “Do enterprises operating in Sardinia, for environmental reasons (geographical, demographic, historical and cultural, social and economic characteristics etc.) show evidence of greater costs and lesser earnings with respect to their competitors based in central and northern regions of Italy ?”.

Of 100 interviewees, no less than 97 replied positively, whereas only 3 replied negatively: thus, replies confirming implicitly the assumption underlying this question were 97%.

It should be noted that of the 97 who had noted evidence of greater costs and lesser earnings for environmental reasons, many added comments such as “without doubt”, “certainly”, “as we are all well aware” and similar expressions making their replies more emphatic.

One interviewee who replied “no” specified that, in relation to his



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activity, which utilises almost exclusively local raw materials, he did not feel he had to bear greater costs compared to enterprises operating outside Sardinia. On the contrary he felt he enjoyed some advantages for the very reason that his was a product exclusive to Sardinia.

Also with reference to the other two negative replies, in effect, the failure to note NMD with respect to the social and economic environment of Sardinia, may be considered as “one off”, that is it was linked to the extremely small size of the enterprise which had an exclusively local view of its operations.

4.3. The second question was: “Does this negative management differential depend to a significant degree on the fact of island status?”.

As regards this question, we must state firstly that all entrepreneurs who replied positively to the first question – that is 97% - gave a positive reply to this question also.

Comments accompanying this question were considerably more incisive: for example, one interviewee stated that “to understand the true degree of penalisation, you need to live on an island” and yet another stated that “living on an island is something that penalises activity right from the outset and is a constant form of persecution”.

4.4. The third question was: “Business operations giving rise to greater costs (or lesser earnings)”.

With respect to each of the functions the numerical value of the interviewees who replied is shown in schematic form in Table 1 as regards the absolute value of positive replies for each of the functions listed.



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Table 1 – Replies to question 3 (absolute value)

Functions	Replies			no answer
	yes	no	don't know	
Access to financing	63	25	9	-
Procurement of supplies and materials	80	15	-	2
Transportation of supplies and materials	88	6	3	-
Management of supplies and materials	46	36	12	3
Industrial processing				
a) costs of manpower employed in processing	13	65	14	5
b) cost of use of machinery	35	43	14	5
c) cost of power	56	23	16	2
d) other industrial costs	26	41	24	6
Management of stocks of finished products	30	54	8	5
Transportation of finished products	61	33	1	2
Commercial distribution of finished products	49	39	6	3
Accounting, control and general administration	10	71	11	5

To evaluate in percentage terms the replies shown, it is necessary to refer only to interviewees who replied positively to the first two questions, that is 97 out of 100, or 97%.

Thus, starting from the absolute values of Table 1, we reach the percentage values of Table 2.

If we rearrange the data in Table 2 in decreasing order, we find that the five functions for which greater costs were perceived were, in order: Transportation of supplies and materials (90.72%); Procurement of supplies and materials (82.47%); Access to financing (64.95%); Transportation of



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finished products (62.88%); Power (57.73%).

Table 2 – Replies to question 3 (in percentage form)

Functions	Replies			no answer
	yes	no	don't know	
Access to financing	64.95	25.77	0.03	-
Procurement of supplies and materials	0.16	0.05	-	0.01
Transportation of supplies and materials	90.72	0.02	0.01	-
Management of supplies and materials	0.11	0.08	0.04	0.01
Industrial processing				
a) cost of manpower employed in processing	0.04	0.14	0.04	0.02
b) cost of use of machinery	0.08	0.10	0.04	0.02
c) cost of power	57.73	0.04	0.05	0.01
d) other industrial costs	26.80	0.10	24.74	0.02
Management of stocks of finished products	30.93	55.67	0.02	0.02
Transportation of finished products	62.88	1.42	0.00	0.01
Commercial distribution of finished products	0.09	0.09	0.02	0.01
Accounting. control and general administration	0.03	0.13	0.03	0.02

As will be clear, some of these functions (Transportation of supplies and materials, Procurement of supplies and materials and Transportation of finished products) are directly linked to the island status of Sardinia, while the others (Access to financing and Power) have links which while not immediately apparent, certainly exist in these cases also.

This is shown for instance by the fact that island status is also limiting for the capital market because the human base of this market is smaller.



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We can make a similar statement as regards power also, since insularity certainly does not favour power supply from external sources.

The two functions where the smallest cost increase was reported were: Manpower employed in processing (13.40%); Accounting, control and general administration (10.31%).

Finally, it should be noted that perception of the greater costs of any function is generally high for each function, since we run from a maximum of 90.78% to a minimum of 10.31%.

4.5. The fourth question was: “Are you able to indicate the estimated percentage of greater cost for each of the functions indicated above in relation to the negative management differential?”.

Values of replies to question 4 of those who replied positively to question 3, (that is who indicated the functions which in their opinion “gave rise to greater costs or lesser earnings”), are listed in Table 3 on the following page. This table shows (for information purposes) the absolute values of positive replies to question 3 (already set out in Table 1) and the average value of cost indicated by interviewees as regards each function.

If we examine the values shown in the column “Greater average cost” in decreasing order, the five functions indicated as costing more due to NMD are: Transportation of supplies and materials (20.90%); Transportation of finished products (18.26%); Procurement of supplies and materials (17.65%); Power (17.41%); Manpower employed in processing (16.00%).

The two functions perceived as being least penalised by NMD are Accounting, control and general administration (8.80%) and Other aspects of industrial activity (8.50%).



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Table 3 – Replies to question 4 (absolute values and average greater cost)

Functions	YES replies	greater average cost
Access to financing	63.00	0.56
Procurement of supplies and materials	80.00	0.75
Transport of supplies and materials	88.00	0.90
Warehouse management	46.00	0.53
Industrial processing		
a) cost of manpower employed in processing	13.00	0.67
b) cost of machinery and equipment	35.00	0.60
c) cost of power	56.00	0.74
d) other industrial costs	26.00	0.37
Management of stocks of finished products	30.00	0.68
Transport of finished products	61.00	0.77
Commercial distribution of finished products	49.00	0.67
Accounting, control and general administration	10.00	0.39

4.6. The fifth question was: “Can you indicate, as previously, the greater percentage of cost for each of the functions in relation to the negative management differential and dependent on the specific nature of island status?”.

Table 4, on the following page, shows (for information purposes) the absolute negative values of those interviewees who indicated, in reply to question 3, the management functions which in their opinion were penalised by greater costs, as well as the average greater cost which interviewees stated they were forced to meet for each function due to island status.

Replies to this question showed that the five functions felt to be most affected by NMD deriving from island status are: Transportation of supplies and materials (18.82%); Transportation of finished products (16.70%); Procurement of supplies and materials (15.64%); Power (15.55%); Mana-



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gement of stocks of finished products (12.27%).

The two functions perceived as least affected by NMD deriving from

Table 4 – Replies to question 5 (absolute values and greater average cost)

Enterprise functions	YES replies	greater average cost
Access to financing	63.00	0.33
Procurement of supplies and materials	80.00	0.67
Transport of supplies and materials	88.00	0.81
Warehouse management	46.00	0.38
Industrial processing		
a) cost of manpower employed in processing	13.00	0.46
b) cost of machinery and equipment	35.00	0.48
c) cost of power	56.00	0.66
d) other industrial costs	26.00	0.27
Management of stocks of finished products	30.00	0.52
Transport of finished products	61.00	0.72
Commercial distribution of finished products	49.00	0.51
Accounting, control and general administration	10.00	0.30

island status are: Accounting, control and general administration (6.70%) and Other aspects of industrial activity (6.31%).

4.7. The sixth question “Any other comments, remarks or suggestions relevant for the good outcome of this research project” aimed at obtaining comments from interviewees. Very few offered their remarks.

Those who did, highlighted the clear and undeniable evidence of permanent structural handicaps which mark the social and economic environment of Sardinia, as indeed we noted in the first paragraph of this chapter.



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5. Conclusions and guidelines for further study

5.1. The data and information provided by the survey allow us to draw a first important general conclusion: the businesspeople interviewed consider island status as a major component of the overall “Negative Management Differential - NMD” that affects Sardinian SMEs. And quite a few among them feel that insularity is the one key element determining this handicap.

As regards some corporate functions, insularity is felt to be a handicap by 50% or more of respondents, as shown in table 5, below.

Table 5 – Comparison between answers to questions 4 and 5

Enterprise functions	Replies		
	YES (Q. 3) a	same (Q. 4 and 5) b	% b/a
Access to financing	63.00	28.00	44.44
Procurement of supplies and materials	80.00	39.00	48.75
Transport of supplies and materials	88.00	23.00	26.13
Warehouse management	46.00	28.00	60.87
Industrial processing			
a) cost of manpower employed in processing	13.00	6.00	46.15
b) cost of machinery and equipment	35.00	21.00	60.00
c) cost of power	56.00	41.00	73.21
d) other industrial costs	26.00	14.00	53.84
Management of stocks of finished products	30.00	13.00	43.33
Transport of finished products	61.00	33.00	54.10
Commercial distribution of finished products	49.00	25.00	51.02
Accounting, control and general administration	10.00	6.00	60.00



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These answers are quite reasonable and expected. Indeed – as we have already remarked – the limitations of operating on an island have an impact on many, if not all, corporate functions.

5.2. Perhaps the most interesting data we can extract from the interviews is that the difference between the greater cost for the individual functions linked to overall NMD and the greater cost of the same functions related to NMD due to insularity differ by as little as 2/3 percent points.

This is made clear in table 6, with reference to the functions most affected by greater costs.

Table 6 – Comparison between the greater costs arising from general NMD and those arising from NMD linked to insularity

Corporate functions	Greater cost of general NMD	Greater cost of NMD linked to insularity	difference
Transport of supplies and materials	0.90	0.81	0.09
Transport of finished products	0.77	0.72	0.12
Procurement of supplies and materials	0.75	0.67	0.08
Power	0.74	0.66	0.10

5.3. Based on the data shown hitherto and other relevant details, we can attempt an assessment of the overall greater cost (i.e. pertaining to all corporate functions taken together, i.e. to overall company operations and management) that local companies based in Sardinia suffer vis-à-vis their external competitors, both as regards general NMD and NMD due to insularity.



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We should also point out that this estimated value is not obtained simply from the answers to the questionnaire but by calculating the amount of greater costs assigned to each function, albeit without presuming to give a precise figure.

Indeed we should point out that:

- a) we were not able to assess directly the overall greater cost since, based on the tests carried out before actually administering the questionnaires, it was clear that Sardinian business people did not have enough data at their disposal to provide an accurate answer to this question. Indeed, during the pilot test, the sample group interviewed said they did not have adequate information on their competitors' overall costs and therefore they could not compare their own general costs with those of their competitors;
- b) data show that each function suffers greater costs, but they contribute to different extents to the overall greater cost;
- c) the functions which have a greater impact on the overall costs of Sardinian SMEs are undoubtedly Transport, procurement of supplies and materials, handling of supplies and material stocks. As can be remarked from the tables shown above, those functions generate greater costs of 19/21%, with respect to overall NMD, and a loss of 2/3 points as regards insularity-linked NMD.

Having said this, based on aggregate data for all functions, and taking into account their different contribution to overall greater costs for Sardinian SMEs, we may state that overall NMD is roughly no less than 17/20%. On the other hand, NMD due to insularity is, again roughly and as a minimum, about 14/17%.

Confirming these data, if we calculate the mathematical average of the average greater percentage costs from table 3, we obtain an overall average



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greater cost rate of some 15%. However, in this average, all functions are treated equally, without considering their differing impact on overall cost.

To make a realistic assessment of the greater overall costs borne by Sardinian companies as a consequence of NMD (both general and due to insularity), starting from the above mentioned minimum data we must take the following factors into account:

- 1) the above mentioned quantitative data show that Sardinian businesses suffer from a NMD as regards procurement of supplies and materials and the availability of essential services. Indeed, there are few suppliers on the local market, due to the inadequate size of the local business world, which is not well developed and is mostly based on micro and small enterprises which clearly cannot provide the same quality assurance available in other areas.
- 2) the timeline for the investment – dis-investment cycle of local Sardinian companies is on an average much longer than similar cycles of their competitors: this is quite obvious, in the light of the longer time necessary for obtaining supplies because of insularity. There are also however, other reasons due to inadequate organisation and methods which tend to increase the duration of the investment – dis-investment cycle;
- 3) due to the combined effect of structural and permanent external handicaps and some internal inadequacies due to the small average size of Sardinian companies, we can easily identify hidden costs which, while not quantifiable and not evident, are certainly there and contribute to generating overall greater costs vis-à-vis non-island competitors.

Having considered all this, the values we initially assigned to general NMD and island-linked NMD can reasonably be increased by at least 3/4



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percent points, so that in short we can estimate that general NMD for local Sardinian companies is some 20/24%, while island-related greater costs are about 17/21%.

We can draw some mathematical, and perhaps obvious implications from these results, by comparing a local company from Sardinia with another of the same size located on the mainland. Assuming that the mainland company has revenues of € 5 million and costs of € 4.5 million, its net profits are € 500,000 or 10% of its revenues.

For the Sardinian company, all being equal apart from total costs to be increased by 24%, the result will be: revenues for € 5 million, costs € 4.5 million, plus greater costs of 24%, i.e. € 1,080,000 meaning overall costs of € 5,580,000. The outcome is a net loss of € 580,000.

Thus, while the mainland company records € 500,000 net profits the Sardinian company has a loss of € 580,000.

If we take the NMD specifically linked to insularity, the results for the Sardinian company improve, so to speak, by € 153,000, i.e. its net loss decreases from € 580,000 to € 445,000.



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Annex 1



Questionnaire

- 1.** Do enterprises operating in Sardinia, for environmental reasons, (geographical, demographic, historical and cultural, social and economic characteristics etc.) show evidence of greater costs and lesser earnings with respect to their competitors based in central and northern Italy?

YES

NO

DON'T KNOW

- 2.** Does this negative management differential depend to a significant degree on insularity?

YES

NO

DON'T KNOW



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3. Business operations subject to greater costs (or lesser earnings):

- | | | | |
|--|-----|----|------------|
| • access to financing | YES | NO | DON'T KNOW |
| • procurement of supplies and materials | YES | NO | DON'T KNOW |
| • transport of supplies and materials | YES | NO | DON'T KNOW |
| • management of supplies and materials | YES | NO | DON'T KNOW |
| • industrial processing: | | | |
| a) cost of manpower employed in processing | YES | NO | DON'T KNOW |
| b) cost of use of machinery | YES | NO | DON'T KNOW |
| c) cost of power | YES | NO | DON'T KNOW |
| d) other industrial costs | YES | NO | DON'T KNOW |
| • management of stocks of finished products | YES | NO | DON'T KNOW |
| • transport of finished products | YES | NO | DON'T KNOW |
| • commercial distribution of finished products | YES | NO | DON'T KNOW |
| • accounting, control and general administration ... | YES | NO | DON'T KNOW |



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4. Are you able to indicate the estimated percentage of greater cost for each of the functions indicated above in relation to the negative management differential?

- access to financing _____
- procurement of supplies and materials _____
- transportation of supplies and materials _____
- management of supplies and materials _____
- industrial processing:
 - a) cost of manpower employed in processing _____
 - b) cost of use of machinery _____
 - c) cost of energy _____
 - d) other industrial costs _____
- management of stocks of finished products _____
- transport of finished products _____
- commercial distribution of finished products _____
- accounting, control and general administration _____



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5. Can you indicate, as previously, the greater percentage of cost for each of the functions in relation to the negative management differential and dependent on the specific nature of island status?

- access to financing _____
- procurement of supplies and materials _____
- transportation of supplies and materials _____
- management of supplies and materials _____
- industrial processing:
 - a) cost of manpower employed in processing _____
 - b) cost of use of machinery _____
 - c) cost of energy _____
 - d) other industrial costs _____
- management of stocks of finished products _____
- transport of finished products _____
- commercial distribution of finished products _____
- accounting, control and general administration _____



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- 6.** Any other comments, remarks or suggestions relevant for the good outcome of this research project
