

## Introduction

Cooperation is not a new strategy as, if we look back, Adam Smith in his “The Wealth of Nations” had already set the importance of its use, for the sake of a nation’s welfare. Several authors developed this topic latter on and some of them claimed the importance of cooperation in a context mainly characterised by specific needs, where a small number of buyers and sellers deal in a highly differentiated product market (Richardson, 1972). Cooperate means exactly the achievement of a defined goal, by means of working together. Now, as in the past, firms embark on alliances to create shareholder value, to gain market share and to extend their capabilities and reach. In fact, issues are the same whereas we place the topic now or in the past. The “only” different thing is the context in which cooperation takes part (Harbinson & Pekar, 1998).

With the advent of globalization, cooperation became a popular entry mode in foreign markets and had experienced an exponential growth in the past two decades. Alliances become usual when two or more firms decide to pool their resources directly in collaboration. The main goal of this strategy is profiting from each other’s experience, by the combination of efforts. This became more and more frequent with the increase of competition that companies have been facing recently. Research on alliances naturally has grown with the importance of alliance on firm’s strategy. Research on it can be split in two:

- a more qualitative research on the motives of starting an alliance, the choice of partners, the choice of form of governance, the process of building and developing trust within it, the difficulties associated with it, the management of it, etc.
- a more quantitative one, based on the analysis of statistical data on the number of existent alliances, industry sectors where its use is more widespread, countries in which its use is more popular, etc.

Last type of data is indeed very difficult to obtain due to the lack of systematic collection of information on alliances. This is due to the absence of compulsory report of this kind of international operations. In fact, while exports are object of report to statistical authorities and mergers and acquisitions to financial ones, alliances only become “visible” when reported in newspapers or magazines, or when announced in

annual reports of firms and/or reports to shareholders. Thus, it is one of the harder topics to get information on. Being a difficult topic to obtain quantitative information of, it is also one of the most fascinating issues of international business and very challenging from a researcher point of view.

### **Researching on international alliances**

Within the general theme of international alliances, we want to develop a study with the objective of understanding the importance of trust and relational risk in the performance of companies engaged in international alliances. This was our main research question. Other objective of the study was to control for national cultural distance, as one of the hypothesis we were trying to test is that trust and relational risk are influenced by the cultural distance among partners. This variable should be simply computed through the Kogut and Singh (1988) Index, using Hofstede's revised measures (2001) as input. For the other constructs (trust, relational risk and performance), scales were used according to the literature reviewed.

In the broader study, a quantitative analysis on the topic of international alliances will be conducted. In order to perform that quantitative analyse, we decided to conduct a survey, based on prepositions throve from literature reviewed. This phase of work was already developed and took the form of a questionnaire. The questionnaire was organised into 5 sections, each one based upon constructs already developed in the literature. Calibrated scales were used whenever possible. The next stage would be surveying respondents. The study we will report here will focus on that particular phase of the broader study, which is still in progress. It concerns a particular stage which includes data collection through survey.

In this phase, we had to face several obstacles that were not initially expected. We will report to those difficulties in this paper, trying to withdraw some thoughts and hints to facilitate researcher's work on data collection and surveying phases.

In this phase of collecting data on international alliances, we anticipated difficulties in the access to relevant data. Therefore, we decided to set no constrains in terms of

countries, industry or size of the companies object of the data collection on alliances. As no constraints were established to narrow the focus of our study, our interest ranged from alliances established between large companies, in more developed economies, to other types of alliances in its broad sense (Contractor and Lorange, 2002), established between smaller firms, in economies with less good performance figures.

After gathering all the information on the important constructs, exploratory and confirmatory factor analysis should be performed and structural equation modelling used to infer about relationships among variables. Normally, studies in this field are focused on a specific domain of research. For instance, Delerue (2004) had focused her study on European biotechnology alliances and Porporato (2005) on automotive industry. On his hand, Magriço (2003) confined his analysis to Portugal, by studying strategic alliances that took place in the 1989-1998 period. We wanted to wide the limits of alliance set. Our goal was to collect data on the perceptions of people in charge for the establishment and management on international alliances, no matter the alliance type, the size of the firm, the industry or the country involved.

### **Using surveys**

One way of accessing the information we need to test prepositions developed in this study was a survey. A survey is a careful examination where a researcher tries to find out detailed information about a lot of different people or things, usually by asking people a series of questions. In the current situation, the survey would allow collecting information on a company position towards one of its partner in one specific alliance, in terms of trust, risk involved in the relationship and perception of the performance ascribed to that particular relationship. In order to get information on a company position, we would have to inquire persons on that organization, as persons are company constituents. Therefore, the person in charge for the international alliance would have to be inquired about a specific relationship, by giving his/her perceptions about the above topics.

A specific interest for the Portuguese reality arose from the previous knowledge the research team had on that country, whether based on the previous experience got in

companies of that country, whether supported by previous academic researches developed in that economy. We thought that previous experience could help us fostering the necessary means to conduct the survey. We also thought that results could be of interest for an open economy as Portugal, a peripheral European country, that experienced an impressive economic growth after entering in the European Union in 1986.

### **Checking existing databases**

We knew from the beginning of this study that one of the largest difficulties in the process of data collection would lay precisely in finding the names and addresses of the person or persons that in each company would be responsible for international partnerships. A first investigation on the existence of such databases didn't produce any results. Thus, looking for data on licensing agreements, technology transfer agreements, franchising, long-term international sub-contracting, distribution contracts, consortiums, international joint ventures, etc. became one of the most important steps in this study. Indeed, two different companies could establish among them a strategic alliance without this operation becoming public knowledge. They can also break it, without public announcement.

It is important in this context to distinguish listed and non-listed companies. The former have a legal obligation to publish information and report facts that might be of interest to shareholders. However, lots of alliances take place between small companies, often non-listed. Most of these are only known after being reported in financial and economic newspapers. Frequently, this only happens when companies decide to have public announcements or report it in the annual report. There are many cases in which no such report even exists. So, international alliances may indeed be created, developed and fade away without even being noticed. And in the cases they are noticed, the available information would be necessarily biased, as the great majority of announcements are made by large companies, companies normally with a good internal organisation, belonging to sectors where alliances are dominant and to more developed countries.

Determining the precise universe of companies involved in international partnerships in a certain moment of time is an impossible task. As we mentioned before, there is no obligation in reporting this kind of activity. Therefore, any attempt would be just an endeavour a research decides to embrace. How to perform this attempt is, *de per si*, already a very difficult task. There are two ways of doing that - through generic databases on companies; through specific databases on international/strategic alliances (see Figure 1).

Figure 1 – Examples of databases<sup>1</sup>, according to its geographical scope, on companies and on alliances

Database type	National scope (Portugal)	European scope	International scope
<b>Generic</b>	Base Belém SABI	<b>AMADEUS</b>	Dun & Bradstreet ORBIS
<b>Specific</b>	<b>CEDIN</b> – Instituto Superior de Economia e Gestão	STEP TO RJVs databank – National Technical University of Athens	<b>SDC Platinum</b> – Thomson Financial <b>MERIT-CATI</b> – University of Maastricht <b>ARPA</b> – Politecnico di Milano <b>INNET</b> – The George Washington University

Generic databases include information on every existent company within a geographical region. The source can be, for databases with a national scope, the national business directory of that country. The problem normally associated with this database is its overestimation of acting companies, as some continued its legal activity but not its financial one. This may be a problem in countries where the bankruptcy process is less efficient and where companies with no sales still figure on databases. To correct this, it is necessary, among other measures, to subtract these companies from databases. In any case, these databases will only give us general data on companies, not specifying whenever they are engaged in international alliances.

The initial number can be very high and the apparent solution to focus on companies with international activity would be the use of a survey to inquire all companies about

<sup>1</sup> Databases in bold are the ones referred in the text.

this. Normally a key question is used to determine whereas their activity is international or not. However, even doing this, the researcher could not know if those firms responding the survey constitute the entire universe of firms operating internationally, as some with an international focus might have not answered. On the other hand, in the end, the set of companies can include companies with different types of international activity, with probably no information about the entry mode used.

A way of avoiding these problems can be obtaining information on existent databases of international or strategic alliances. However, accessing those databases is not an easy task. In fact, existent databases were created by different researchers or companies that performed a tough and long work. In some cases, they departure from generic databases and use several heuristics to confine the set to international actors. As this is a costly process, the access to the database is normally very expensive and out of reach for a common researcher.

In the absence of a database, some researchers prefer the creation of their own. However, this is a time-consuming process and because it is unbearable for most of researchers, it is not frequently used in academia. In some cases, though, complete absence of data lead some researchers to input a part of their time to the collection of news in the press. This is what Hagedoorn and Narula (1996) label as “literature-based alliance counting”. In some situations, after initiated the process, researchers gather a team whom to assign this task and try to do that in a systematic way. Normally this is a sponsored process and depending on the sponsor, the data can be obtained in a regular basis or not. Its update will also depend on the amount of resources involved. There are several shortcomings ascribed to this method of information gathering. Nevertheless, Hagedoorn and Narula (1996), claim that this method can produce a clear picture of the joint efforts of many companies. “This enables us to perform empirical research which goes beyond case studies or general statements.” (Hagedoorn and Narula, 1996, p. 270)

## **Analysing different databases**

### **A. National databases**

#### **1. CEDIN – Instituto Superior de Economia, Universidade Técnica de Lisboa**

CEDIN is a database produced by Instituto Superior de Economia e Gestão (Universidade Técnica de Lisboa), in 1999, under Vitor Magriço's supervision (Magriço, 2003). CEDIN's has 874 records for alliances, among joint ventures, franchising, consortiums, sub-contracting agreements, licensing agreements, and other types of alliances. The common line in all of these alliances is that all have, at least, a Portuguese company involved. This is because data was only collected in Portuguese press and through questionnaires sent to a general database of Portuguese firms, in a mission that took researchers about six months, on the first semester of 1999. Data<sup>2</sup> was collected through two ways: a collection of news stories and the results of a survey which researchers sent to Belém database<sup>3</sup>. The process of collecting new stories on alliances took place with daily visits to the Emerotheque of Lisbon City Hall. *Diário Económico* and *Semanário Económico* were the newspapers used to search for new stories on alliances.

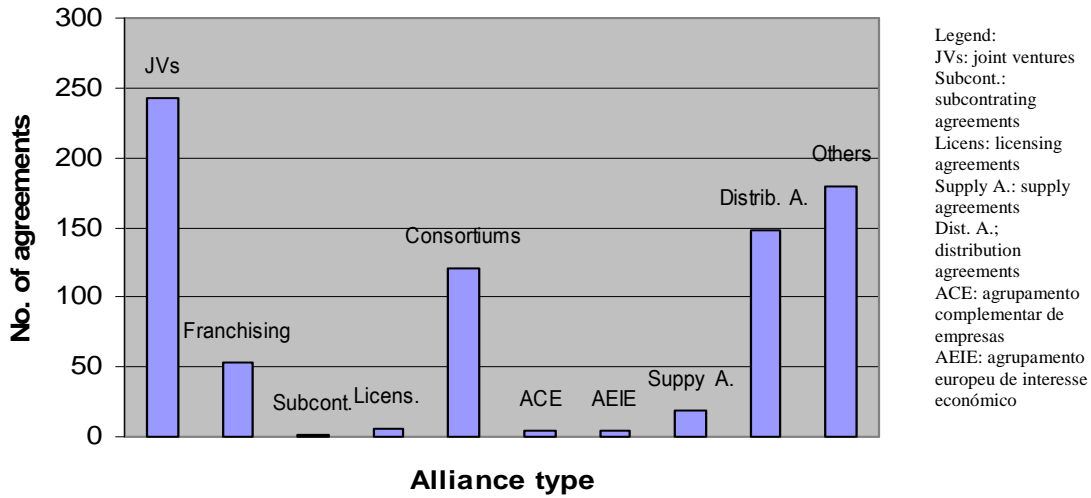
After all the data collected, a distribution of alliances was made (see Figure 2) with the bulk of agreements being classified with the label of joint ventures. The residual category – “Others” – includes 23.1% of all situations. This high number is due to the lack of explicit classification of the alliance type in the new story collected.

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<sup>2</sup> 760 records resulted from new stories collected and 114 are the result of questionnaires sent to Portuguese companies. Questionnaires were sent out to the 2,751 biggest companies of the database and to other 84 cases in which alliances were expected to be used. 2,835 questionnaires produced 435 responses and 411 valid questionnaires. From these, 114 were cooperation agreements, which summed to the 760 news stories produced the 874 figure reported above.

<sup>3</sup> Belém database, with around 300,000 companies, is the biggest Portuguese database on companies and it is produced annually by the National Statistics Institute. It is a dynamic database updated daily. It covers topics as firms' addresses, equity, number of employees, industrial code, establishment date, etc.

Figure 2 – Distribution of CEDIN’s alliances in categories



Source: adapted from Magriço (2003).

This database, created six years ago, was used for PhD thesis purposes (Magriço, 2001) and it has not been updated since then. This is a good example of how difficult is the work of an alliance’s researcher. A good application of this database can be found at Magriço (2003).

## B. International databases<sup>4</sup>

### 1 - AMADEUS - Bureau Van Dijk

In November of 2004 we got to know AMADEUS, a database represented by a Dutch company named Bureau Van Dijk. AMADEUS (Analyse Major Databases from European Sources) has information on companies of 38 European countries. It contains financial information on 7 million public and private companies. 35 information providers are used as sources of data. AMADEUS identifies the best source of information in each country and applies strict inclusion criteria to prevent any bias in coverage.

<sup>4</sup> We chose only some of existing databases for an in-depth view.

For academic purposes there are some points stressed out in the flyer as important in an academic environment: information easy-to-manipulate for end users; appropriateness for both students and tutor research projects; ideal as a teaching tool. Researchers often use these databases.

There are also other databases provided by Bureau van Dijk. The company differentiated the data on international and national data, economic and other data and merger and acquisition data (See Appendix 1).

With this larger portfolio of databases, the Madrid branch of the company was questioned about the appropriateness of any database for our study. However, no specific information on international alliances was pointed out. Thus, we considered this database a very rich one on generic and financial topics, but scanty on specific data on international cooperative arrangements.

## **2 - SDC Platinum – Thomson Financial**

One of the most famous databases on strategic alliances is Thomson Financial SDC Platinum. We know Platinum since 2002 through a flyer printed by Thomson Financial. Since that year we have been trying to figure out the potentialities of this database in what comes to international alliances. It was in an OECD report that, in annex, we found information about it. The authors of the report referred to this database in the “Data Sources” section, saying that it “...contains more than 60,000 cross-border M&A transactions worldwide and almost 50,000 cross-border alliances, including joint ventures, research and development (R&D) agreements, sales and marketing agreements, etc, from 1988 to the present.” They also state that like most other data banks, this database is based on public announcements.

Besides OECD reports and the World Investment Report produced by the United Nations Conference on Trade and Development (UNCTAD), we know that Sánchez-Lorda and García-Canal (2005) have used it in their study on stock market reaction to alliances and acquisitions of European telecom firms.

As limitations of the database, the authors of the OECD report pointed out one major. This limitation has to do with a bias towards large companies, since small firms tend not to be reported in the press. They also say that it is big the difference between the importance of small and medium sized firms in the total number of enterprises (95%) and its relative importance (10%) in all cross-border deals in the 1990s. Also Kim and Vonortas (2004) have referred the bias of this database towards large companies and companies based on the United States.

Based in the initial information collected about SDC Platinum, we asked for its price. In 2002 the database was priced at 9,480€/year. In the flyer received, Thomson was advertising 45 databases included in SDC Platinum from mergers and acquisitions to alliances, including joint ventures. The price of this database was considered too high, which lead us to other alternatives.

### **3 - MERIT-CATI – MERIT (Maastricht Economic Research Institute on Innovation and Technology), Maastricht University**

There is another database that was created in the same way as CEDIN, although in a different scale. MERIT-CATI (Cooperative Agreements and Technology Indicators) database was used in several works (for example: Hagedoorn and Narula, 1996; Narula, 1999; Hagedoorn and Sadowski, 1999; Narula and Hagedoorn, 1999). MERIT is a research centre at Maastricht University.

The data is being collected by MERIT since 1988, in a systematic way. At the moment the database has already 15,000 cooperative arrangements involving more than 9,500 firms. Researchers in this centre used various sources, of which the most important is newspaper and trade journal articles. Recently, digital sources like ABI-Inform are also being used. Company information steams primarily from sources like Dun & Bradstreet (D&B) “Who owns who” database; company annual reports; Financial Times Industrial Companies Yearbooks; and financial information from Worldscope and from Global Researcher. In the description of the database, MERIT technicians state some limitations: “This method of information gathering, which we might call “literature/internet based alliance counting” has its drawbacks and limitations:

- in general we only come across those arrangements that are made public by the companies themselves;
- articles in newspapers and journals are likely to be incomplete, especially when they go back in history and/or regards firms from other countries as outside the scope of the journal. Furthermore, in earlier years the subject of collaboration was less thoroughly treated than nowadays;
- because of the limited coverage by the press, small/regional firms are probably not well represented in this database;
- the fact that most of the articles we read are in English probably causes a bias against those countries that are not covered by English press (although we also read Dutch and German press and read translated abstracts of important foreign newspapers and trade journals).
- Unfortunately there is a lack of information concerning the dissolution of agreements. Companies often send out press releases when the alliance starts but let it die rather quietly.

These handicaps likely lead to a geographic – i.e. Anglo-Saxon – bias and an overrepresentation of large/well known firms. Despite these shortcomings, which are difficult to solve even in a situation of extensive and large-scale data-collection, we think CATI is able to produce a clear picture of the joint efforts of many companies. This enables us to perform empirical research that goes beyond case studies or general statements.” (Prospectus of CATI, p.1) These disadvantages were already named by Hagedoorn and Narula (1996) who, after a trade-off between advantages and disadvantages associated with these, found it worthwhile.

MERIT defines cooperative arrangements as common interests between independent (industrial) partners that are not connected through majority ownership. This database only contains information on inter-firm agreements that includes some arrangements for mutual transfer of technology or joint research. Information collected concerns primarily agreements for contracts, joint ventures and research corporations. Agreements collected have to have a combined innovative activity or an exchange of technology. Also only agreements that have at least two industrial partners entered the database. The price of this database is 5,000€, which includes free access for unlimited number of users as long as they are located in the same organization.

Although this database has much information related to the one we were trying to find, it restricts data to transfer of technology agreements and to joint-research alliances. In fact, these two are very common types of alliances as most of alliances being established currently have, indeed, that initial purpose. However, it doesn't cover a lot of other alliances that we would like to have included in this study, namely cost-economizing partnerships and licensing agreements, which are widely used in some countries. In any case, the difficulties stated by CATI building process are common to any other database construction and serve here just an example of the type of difficulties researchers in international alliances have to face.

#### **4 – ARPA Database – Politecnico di Milano**

ARPA database was developed by Politecnico di Milano. It contains agreements in information technology industries (i.e., semiconductor, data processing, and telecommunications) between 1980 and 1986. According to Hagedoorn and Schakenraad (1992), the peak of alliances in the mid 1980s was on information technology industries. Therefore, this was considered in some works (Colombo, 2003) as a good approach to agreements established in that period. Cantwell and Colombo (2000) had also used this database in their study on inter-firm cooperation in information technology ventures.

“Information contained in ARPA was gathered from the international financial press, technical magazines, and specialist studies. ARPA adopts a standardized classification of agreements similar to the one of the CATI database; it considers the year of establishment of the collaboration, the organizational form, and the nature of the involved activities.” (Colombo, 2003, p. 1215)

ARPA contains information on 2,014 cooperative arrangements, involving 1,574 partners belonging to 1,177 independent entities (Cainarca, Colombo and Mariotti, 1992). This database was not considered in our analysis as it was outdated and focused in a specific industry.

## **5 – INNET (Innovation Network) Databank – Center for International Science and Technology Policy, The George Washington University**

This databank is a make up of several databases covering the period between 1985 and 2002. It contains more than 95,000 strategic alliances and over 60,000 participants. The main use of this database has been reports to the National Science Foundation and OECD. Other studies have been conducted based on it, as for instance Vivio (2004) and Kim and Vonortas (2004). Databases contained in INNET include information on several types of inter-firm agreements, such as joint ventures, licensing, manufacturing, research and development, marketing and supply agreements. It also includes U.S. patents and indicators of business performance. Information of the industry, description of the agreement, date and current state of the alliance are also provided. One of the main advantages cited by Vivio (2004) is the ability of INNET to sort and categorize data.

One interesting finding about INNET was that the basic information of this database has been drawn from SDC Platinum due to the extensive information available in this database. Although, researchers (Kim and Vonortas, 2004) also recognised limitations on SDC Platinum as it is biased towards American organizations, due to the data collection methodology used (language, geography and ability to be equally inclusive around the world). Still, as in some studies American alliances are the main focus, this disadvantage can be overtaken.

The research on this database allowed us to corroborate the idea that SDC Platinum would be our target database and that accessing it would be an important achievement.

## **6 – Other databases**

Depending on the alliance form we can also find other databases. For instance, for Research Joint Ventures (RJV), we found in Caloghirou et al. (2003) a list of three other databases created by academic researchers and private sector companies. Besides the MERIT-CATI database, these authors also refer to:

- NCRA-RJV database, with information on RJV reported in the Federal Register of the U.S. Department of Justice since 1985. This database displays longitudinal

financial information on selected variables on all identified business partners. It is maintained by Nick Vonortas and colleagues at the George Washington University.

- CORE database, similar to the previous one, but with information on industry, rather than the participating firms. It is maintained by Al Link and colleagues at the University of North Carolina.
- STEP TO RJVs databank, composed of three databases, and managed by Yannis Caloghirou and colleagues, at the National Technical University of Athens:
  - EU-RJV database, existing since 1984 and European Union funded, with information on all RJVs and its business participants;
  - EUREKA-RJV database, existing since 1985 and ruled by EUREKA, with similar information also with an European scope;
  - RJV survey, with detailed information on collaborative R&D as a result of a survey of European firms participating in RJVs.

### **Choosing the appropriate international and national database**

Criteria as the time and resources asserted to this research compelled us for the use of an existent database instead of the creation of a new one. The ease of access to existent ones, as well as the scope of the database and the updated information provided, were the main restrictions used in defining which database to use. The available alternatives for researchers working on international alliances are not many, especially if they are not affiliated with any research centre or university with a database already built. In our case, the databases that presented as the more attractive were MERIT and SDC Platinum, with a drift over this last one because of the broadness of its covering.

As this latter alternative presented us as very costly in terms of time and money, we focused in possible solutions to access SDC Platinum. We beard in mind that small companies engaged in international partnerships wouldn't be covered by this database, although this was the most complete one on alliances. So, we kept in mind that we would have to go for two databases simultaneously – a broader and a smaller one.

Having access to a bulk of strategic alliances would give us information that we would hardly had in another way. However, we wouldn't have data on those cost-economising

partnerships that we thought were characteristics of other economies, very different from the American one, but also representative of the universe of alliances all around the world. Portugal was one of such economies and, for operational reasons we decided to consider it as an example of a different context in which alliances take place. Therefore, we endeavour in getting the access to SDC Platinum and start considering a good way to get access to alliances with a Portuguese scope.

In what concerns SDC Platinum, looking for places that allowed us the access to it seemed to be a good starting point. Several contacts were then established using our personal network of contacts. Most of the contacts were made with researchers in this study field. Oddly we realised that most of the researchers had never hear about SDC Platinum although most of them knew Thomson Financial well. SDC One Banker and Thomson Datastream were popular products with financial details of companies, much cheaper and therefore easier to be bought than SDC Platinum. Several universities<sup>5</sup> had access to these databases but have never heard of SDC Platinum. Nevertheless, through one of our personal contacts at ESADE (Barcelona), we got to know a researcher at University of Oviedo (Spain) that had already used the database for his research. That researcher<sup>6</sup> informed us about the potentialities of the database, which he used to collect data on strategic alliances in the telecommunications sector. This was the first time we talked to someone that had already used that database for academic research (Sánchez-Lorda and Garcia-Canal, 2005). We then realised that only by browsing the database we would be able to realise its potentialities for our research.

In fact, not knowing any research that used this database was considered a little bit peculiar. Although, this was consistent with our idea that SDC's price was unbearable for the majority of universities. And because of that, only some large institutions, as OECD, UNCTAD or INSEAD, had enough financial resources to buy it. Being affordable to organizations where lots of people can benefit from it, like for instance investment banks or large international institutions, it is not to academic departments. Here, apparently, only a few researchers would benefit from it.

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<sup>5</sup> This was the case, for instance, of contacts established at University of Tilburg (The Netherlands), at Copenhagen Business School (Denmark) and at University of Vaasa (Finland) where there is recognised knowledge on this field.

<sup>6</sup> We are referring to Pablo Sánchez-Lorda that had been a visiting research at INSEAD (Europe campus) and that was informed about the existence of this database at Doriot Library.

In order to find out exactly the kind of information available in that database, we decided to try to obtain, through a personal contact at INSEAD, copies of the user's manual. In two weeks we had it already and started its examination. At the same time, we thought that it would be better to ask for a free trial or an excerpt of the database in the form of a dataset. Thus, contacts with Thomson Financial were established in Madrid, London, Glasgow and Dublin. It was possible to realise that the company has different types of information available and that there are specialization of their personnel in each product. Finding the right person within such a large organization was not an easy task. The person in charge in each branch travels frequently, being hard to find. This meant we had to look for information in different Thomson offices. Some messages were left with no return and only after some persistent contacts we were able to reach the responsible for the Irish branch. The entire situation was explained and we asked for an opportunity to test the database. As affiliates at University College Dublin, a university that has already several subscriptions at Thomson, we thought that this could be fulfilled. We had no more contacts from Dublin, but two days later we received a contact from the Glasgow branch informing about the price for our request (5,000€) and not mentioning any free trial or possible access to any part of the database.

A personal contact at University of Maastricht confirmed us later that, in fact, the database had important information on several topics. By this time, we knew already through the user's manual that data was organized in 8 categories: VentureXpert, Securities Trading, Industry Specific, Global Public Finance, Global New Issues, Mergers & Acquisitions, Corporate Governance, and Corporate Restructurings. There was no category for strategic alliances, although it was said in the ad flyer that databases included, among others, "Joint Ventures and Strategic Alliances". So, it was puzzling us what would be the category where strategic alliances might be included.

Unfortunately, all the examples given in the manual, with all the steps, description procedures and print screens, were related to the flag "Global New Issues". Fortunately, by contacting a person with on-line access to SDC, we were able to confirm that the required information existed in the database in the flag "Mergers & Acquisitions". We realised that we had to consult the database ourselves in order to trial its full capabilities. Any important information would have to be searched for among the

burden of data available. Obtain access to Doriot Library, at Fontainebleau (France) presented as the better option at that moment. We got information about library access. With an explanation about the motives of our visit, the director of the library could allow us to visit it<sup>7</sup>. The admission, if conceded, would give us free access to all databases and would cost 8€ a day. We start the process and got the authorization one day after. In the meanwhile we solicited a contact at INSEAD to confirm that the database was functioning properly and that accessing the type of information we were looking for was possible. After the confirmation, we went to the library.

Our intention was to collect a sample representative of the all universe and, at the same time try to retrieve as much contacts (e-mail addresses of the people in charge for the alliance) as possible. The idea was try to extract from the database those alliances in which names of persons were included and, simultaneously, get a sample representative of the population. Although, in alliances we are not able to clearly define the population as it is impossible to know exactly how many alliances exist as we previously mentioned. Contacts were expected to be of great help in the addressing of the survey.

We quickly realised that data was not of immediate access. For each record we had a large number of fields that took us hours to download. Only in the Joint Venture category there were 221 fields, ranging from alliance activity, industry and nation to participants name, address and business description. Strategic alliances had lots of data as alliances were being collected since the late 80s. Some criteria had to be settled to confine our search: time period and number of relevant fields were the main two. Also time constrain was an important feature in the decision. The challenge of investigating in a less researched topic made alliances a very appealing topic to work in.

Having data on strategic alliances from the last ten years was considered adequate, for the sake of time reasonability and for the purpose of the research. In fact, alliances announced before 1995 had a smaller probability of still being active. Therefore, capturing those established in between ten years ago and now would already lead us to a good dataset. At the same time, that would cover a reasonable period of time. Even so,

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<sup>7</sup> We also have to add a statement letter of a professor as well as a copy of the researcher card.

we realised that there was still a long way to run, before the selection of an appropriate sample.

Facing the bulk of information available, data on 13 fields for each alliance was extracted (Year of Announcement of the Alliance, Participants in Alliance, Business Description, Participant Industry, Participant Nation, Participant Phone Number, Participant Fax Number, Participant Address, Participant Zip Code, Participant City, Name of Contact, Contact E-Mail, Contact Phone), as it is shown in Figure 3.

Figure 3 – Example of the datasheet with information on alliances

Participants	Business description	Participant industry	Participant nation	Participant phone no.	Participant fax number	P. address line 1	P. address line 2	Participant zip code	Participant city	Name of contact	Contact e-mail	Contact ph
Sports Weekly TOM Online Inc	Publish sports newspaper Pvd wireless telecom	Printing, Publishing, and Allied Services Telecommunications	China Hong Kong	86 861085283399	86 861085181169	8f Tower W3, Oriental Plaza	1 Dong Chang An Ave	10073-8	Beijing	Jenny Hu	huying@bj.tom.com	861085283399
Rahazi Processing Oy ThreeStar Technologies Inc Hypercom Corp	Pvd online credit card svcs Mnfr_dvlp_whl electr solution	Business Services Computer and Office Equipment	Finland United States	358927-42200 802350-45000	358 802386-5380	Hallomastrande n 2 2851 West Kathleen Road		00210 85053	Helsinki Phoenix	Gwyneth Pritchard	gpritchard@hypercom.com	44011483601
Biofocus PLC Galapagos Genomics NV	Biotechnology company Biotechnology company	Drugs Drugs	United Kingdom Belgium	44223723222 3453-42900	44223723223 3453-42901	Cambridge Science Park Generaal De Wittelaan 111 A3	Ilkow Road Industriepark	CB40 4B B-280-0	Cambridge Mechelen	Geoff McMillan Dirk Pollet	dirk@galapagos.com	4401799500 32153-4290
Incentive Logic Inc Strategic Performance Inc	Pvd marketing svcs Dvlp mgmt software	Business Services Prepackaged Software	United States United States	(401) 477-6380 (714) 856-9200	(401) 477-6381 (714) 856-9300	14850 Frank Lloyd Wright Blvd	Suite 10	85260	Scottsdale Costa Mesa	Deborah Cataldo	dcataldo@strategicperformance.com	7146569200
Whatman PLC GenVault Corp	Mnfr_whl industrial filters Mnfr_biosample mgmt	Machinery Measuring, Medical, Photo Equipment;	United Kingdom United States	442003261740 (760)268-5200	442003261741 (760)268-5201	27 Great West Road 2101 Faraday	Brentford	TW8 9 BW 92008	Middlesex Carlsbad	Cindy Subido	csubido@towersend.com	858-46746
Vertex Communications & Technology Group Ltd	Public magazine Own op radio,TV stations	Printing, Publishing, and Allied Services Radio and Television	Hong Kong United States	85221873333 (212)916-9200	85221873334 (212)916-9312	Rm 2703, China Merchants Tower 605 Third Avenue	Shun Tak Center	16820-0 10158	Connaught Rd Central New York	Ashley Swadel	ashley.swadel@vcom.com	212-648-9800
Solutions Inc 3Com Corp	Dvlp internet software Mnfr_whl networking sys	Prepackaged Software Communications Equipment	Canada United States	(888) 486-2221 (508)323-5000	(802) 480-0233 (508)323-1111	1869 Upper Water St, Ste 1506 350 Campus Drive	Purdy's Wharf Tower 2	B3J 3-R7 01752	Halifax Marlborough	Anthony Petrucci	anthony_petrucci@3com.com	50832315
Pronto Networks Inc 3Com Corp	Dvlp software Mnfr_whl networking sys	Prepackaged Software Communications Equipment	United States United States	(825)227-5500 (508)323-5000	(825)460-8227 (508)323-1111	4637 Chanbot Drive 350 Campus Drive	Suite 350	94668 01752	Pleasanton Marlborough	Anthony Petrucci	anthony_petrucci@3com.com	50832315
Aptilo Networks AB 3Com Corp	Pvd computer integrated svcs Mnfr_whl networking sys	Business Services Communications Equipment	Sweden United States	46850889900 (508)323-5000	46850889940 (508)323-1111	Tegnergatan 23 350 Campus Drive	5th floor	111 4-0 01752	Stockholm Marlborough	Anthony Petrucci	anthony_petrucci@3com.com	50832315
Synergenics LLC Synco Bio Partners Investments Cruceil NV DSM Biologics	Biotechnology company Biotechnology company Biotechnology company Biotechnology company	Drugs Drugs Drugs Drugs	United States Netherlands Netherlands Canada	na 31 3107152-40701 na	na 31 3107152-40702 na	One Market Archimedesweg 4 6000 Royalmount Avenue	Suite 1475 Stewart Tower	94005 2333-CN H4P2T-1	San Francisco Amsterdam Leiden Montreal	Elizabeth Goodwin Marcel Lubben	e.goodwin@ruceil.com marcel.lubben@ds	3107152-40702 31046-4703

The process of collecting data under these criteria took around one and an half days. Data was transferred to Excel format and stored. Each alliance was inserted in one row of the Excel file. In some cases, alliances had the identification of all partners involved, in other cases only one partner was identified. In some cases, we had the identification with the name of contact in it, in other cases we did not. In some cases we had access to the contact person e-mail, in other cases only postal address was available.

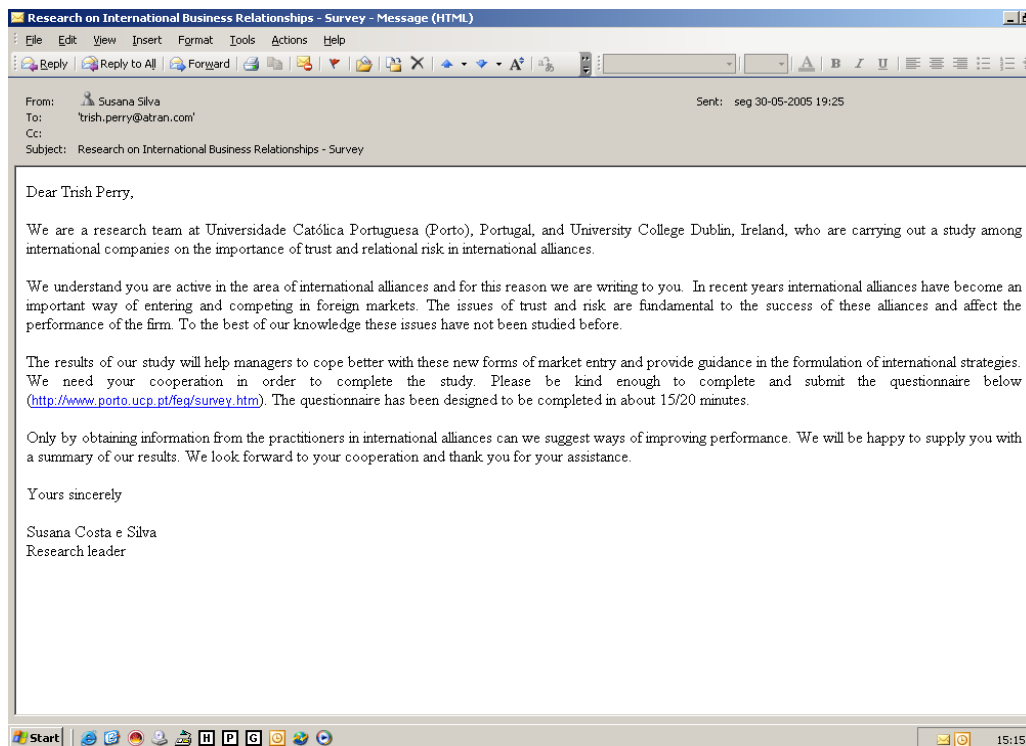
## **Examining the raw data collected**

After a first analysis we realise that we had a huge amount of data. We realise that a substantial part of the contacts had an e-mail address. After extracting all the contacts with e-mail we had 6,462 contacts. From these, 1,386 contacts appeared more than once, most of the cases meaning that companies (with the same contact person) had been involved in more than one alliance over those 10 years. This led to a final figure of 5,048 e-mails contacts. With this number, we thought that we had enough contacts to conduct a web-based survey, as we could send e-mails in the majority of cases. Despite the low response rate associated with Internet and e-mail surveys (e.g., Frazee et al., 2003 and Gradcolas et al., 2003; Cole, 2005), advantages associated to this type of survey (e.g., Zhang, 1999; Kiernan et al., 2005; Gradcolas et al., 2003; Kaplowitz et al., 2004) made us think that we should go for it. In fact, most of researchers in this field make a trade-off analysis where they recognise that there are advantages and limitations associated to this method. They also admit that the potential of web-based surveys is enormous especially if “tailored design methods” are used (Dillman, 2000). So, we thought that adaptation to our particular situation would help the implementation of our survey.

The next step was the creation of a database with the name of the person in the company responsible for the partnership and that person’s e-mail contact. This process was a little bit time-consuming as data had to be sorted out. We then thought that it would be better to send each person an e-mail message (see Figure 4) with a short text explaining the study. In that text we should be able of answering simple questions as:

- Who is conducting the study?
- What are the purposes of it?
- What is the respondent input needed for?
- For what can this be important?

Figure 4 - E-mail-model sent to the worldwide database



### Designing the web-based survey

After analysing several alternatives<sup>8</sup>, in our research we opted for inserting in a personalised e-mail message a hyperlink to a website containing the survey. This would avoid the download of an attached file and the subsequent tasks: fill it in, save it and send it back to us. The attachment option would also be complicated if different text processing programmes were used by sender and receiver. With the survey located in a server, the access was instantaneous; the person could answer with ticks; we could use mechanisms as radio buttons and drop-down of options, as suggested by Archer (2003) (see Figure 5). The greatest advantage would be, in our case, the expected cost<sup>9</sup> (lower than the cost we would have to incur in case of postal survey<sup>10</sup>) and time needed. In

<sup>8</sup> We analysed mainly paper and web-mail alternatives. The comparison between these two surveying methods was reviewed in the literature. Our decision was claimed towards several previous works. We decided not to cover this topic here. It should be cover in another paper.

<sup>9</sup> The service of programming and maintaining the survey, with a Portuguese supplier, had a cost of 178.5€.

<sup>10</sup> We had a 460€ estimate (Portuguese firm) for printing 1,000 16-pages questionnaire (A4 format, 21x29.7 cm, IOR paper 90 grs, cover printed in 4 colours, interior in one colour, stapled). On the top of this we had to sum expenses with posting, pre-paid envelops and pre-paid mail (The Irish Post Mail does not have pre-paid envelops for mail arriving from all over the world; the Portuguese Post Mail has,

fact, as some of the tough work (accessing databases, collecting data, examining it, refining it, etc.) had already been done and worked here as sunk costs.

Figure 5 - Design guidelines and tips for conducting Web-Based Surveys

Design guidelines	Tips for conducting
<ol style="list-style-type: none"> <li>1. Utilize a multiple contact strategy much like that used for regular mail surveys (Dillman, 2000, p.367)</li> <li>2. Personalize contacts through e-mail if possible (Dillman, 2000, p. 366)</li> <li>3. Keep the invitation brief (Dillman, 2000, p. 366)</li> <li>4. Begin with an interesting, but simple tom answer, question (Dillman, 2000)</li> <li>5. Introduce a web survey with a welcome screen that is motivational, emphasizes the ease of response, and instructs about how to proceede to the survey (Dillman, 2000, p. 377)</li> <li>6. Present each question in a convenient format similar to that normally used on paper, self-administered surveys (Dillman, 2000, p. 379)</li> <li>7. Do not require respondents to provide an answer to each question before being allowed to answer subsequent questions (Dillman, 2000, p. 394)</li> <li>8. Make it possible for each question, and corresponding potential responses to that question to be visible on the screen at one time.</li> </ol>	<ol style="list-style-type: none"> <li>1.Shorten the time between notice and reminders, and the total duration of the response period</li> <li>2.Shorten the length of invitation and reminder messages</li> <li>3. Keep the questionnaire short</li> <li>4.Simplify the questions even more so that in paper surveys</li> <li>5.Think of the survey as an outline version of a conversation. There should be a natural flow, with transitions between one though and the next</li> <li>6.Pilot test each survey with a variety of people using different browsers</li> <li>7.Avoid undelivered e-mail invitations by developing accurate potential respondent e-mail lists</li> <li>8.Extract narrative text responses from data before importing into the numerical data analysis program SPSS.</li> </ol>

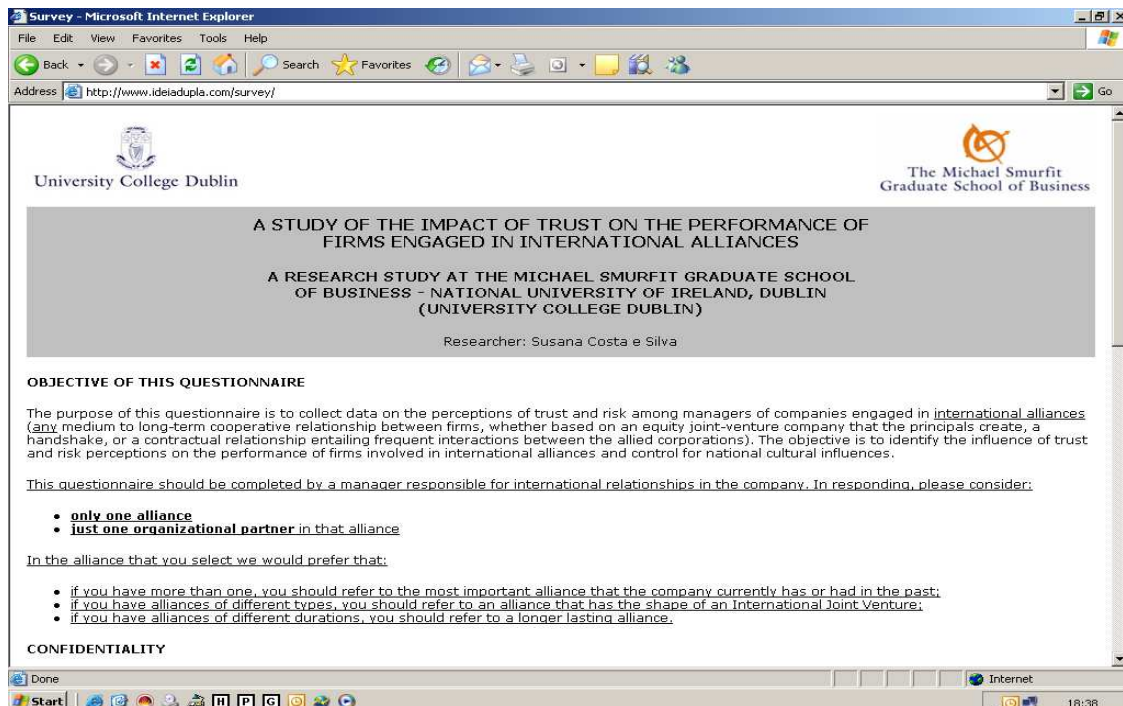
Source: Archer, 2003.

The survey was outsourced designed, according to the shape of the paper questionnaire. It was placed in the server of the programmer company and was labelled as <http://www.ideiadupla.com/survey>. Then a link in the university server was created – [www.porto.ucp.pt/feg/survey.htm](http://www.porto.ucp.pt/feg/survey.htm) - to re-directed respondents to the previous one. This option allowed us to present to respondents only one link (the second): an institutional one, secure and in English. By clicking on this link, which was shown in blue in the text, the respondent would be conducted to the introductory page of the survey (see Figure 6).

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depending on bilateral agreements with Post Mails of several countries. Although most of the countries involved in our database had agreements with the Portuguese Post Mail, envelops had to be produced according to a specific norm, which was very difficult to find, and we had to take care of its manufacture.) This increased a lot the cost of this option, when compared to the alternative.

Figure 6 - Extract 1 of the first page of the web-survey



Questionnaire formulary was designed in HTML with JavaScript technology being used for data validation. ASP programming language was used for data validation too, as well as for database link connection. Database was created with Microsoft Access. Drop-down options were used whenever it was possible (e.g., for the choice of country), as well as check boxes. The survey was constituted by 5 sections, the same ones as in the paper version. It was decided to replicate as much as possible the paper version of the questionnaire. Thus the first page was similar to a cover letter, with the university logo (coloured), explaining the purpose of the questionnaire and giving respondents some instructions for its completion, as suggested by Archer (2003). Aspects as confidentiality, importance of cooperation and advantages for the company (in the form of a short report with the conclusions of the study) were also covered. The completion of the survey was hardly possible in less than 20 minutes. So, we also informed the respondent about it. We agreed with the outsourced company in charge for the survey maintenance that it would be on-line during three months.

This introductory page had a sign – “Click here to start the questionnaire” (see Figure 7) – where respondents were re-directed to the questionnaire itself (see Figure 8). After completing the questionnaire, results were stored in an Excel file, along with

information on the Internet Provider, Internet address of the respondent, and town and country from where the survey was completed. This procedure allows us the remission of eventual situations of multiple responses coming, for mistake, from the same person.

Figure 7 - Extract 2 of the first page of the web-survey

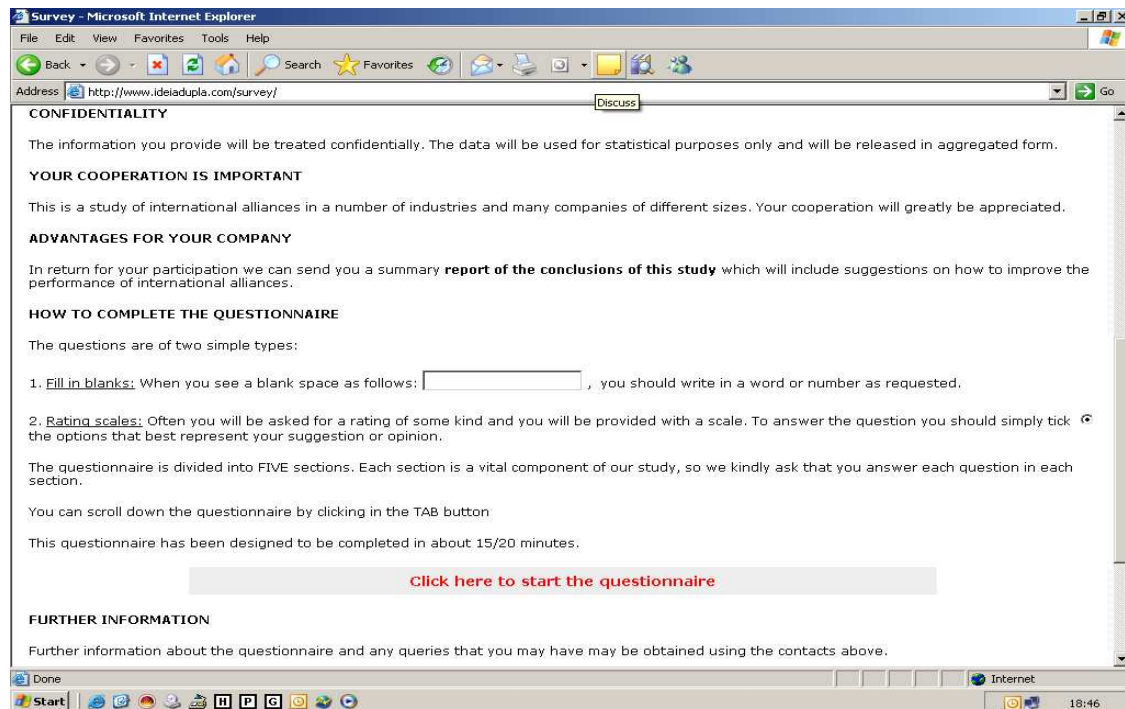
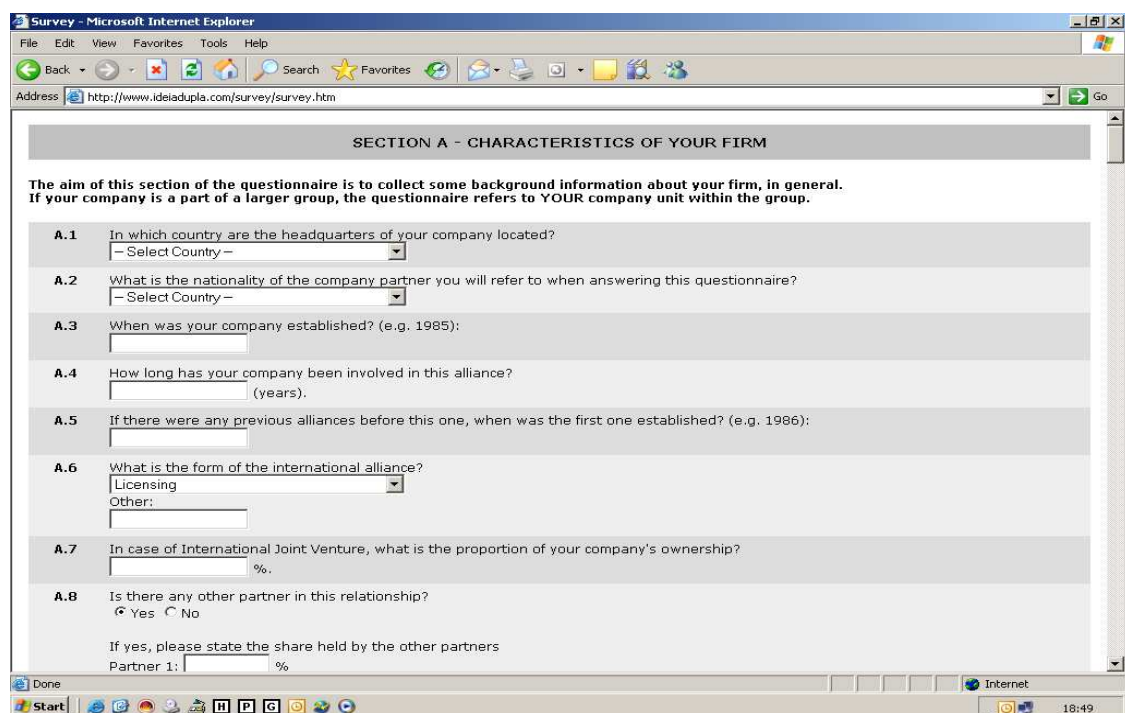


Figure 8 - Extract of the questionnaire

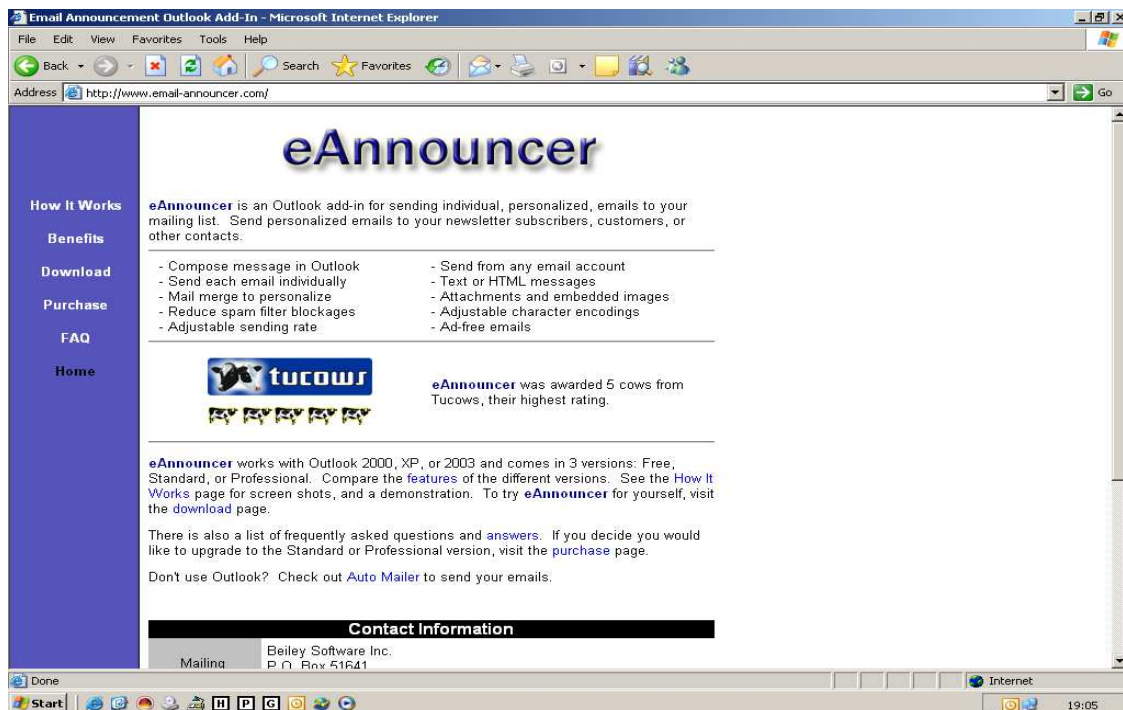


Most of the questions, 84.85%, involved a 7-point Likert scale and concerned companies perceptions. There were sentences that the respondent had to classify between 1 (“Strongly Disagree”) to 7 (“Strongly agree”). Remaining questions were mainly closed questions, 25% of which had a set of options from which the respondent could choose.

## Conducting the web-survey – Worldwide

Free-access software to e-mails customization – e-Announcer (see Figure 9) – was downloaded from an Internet site.

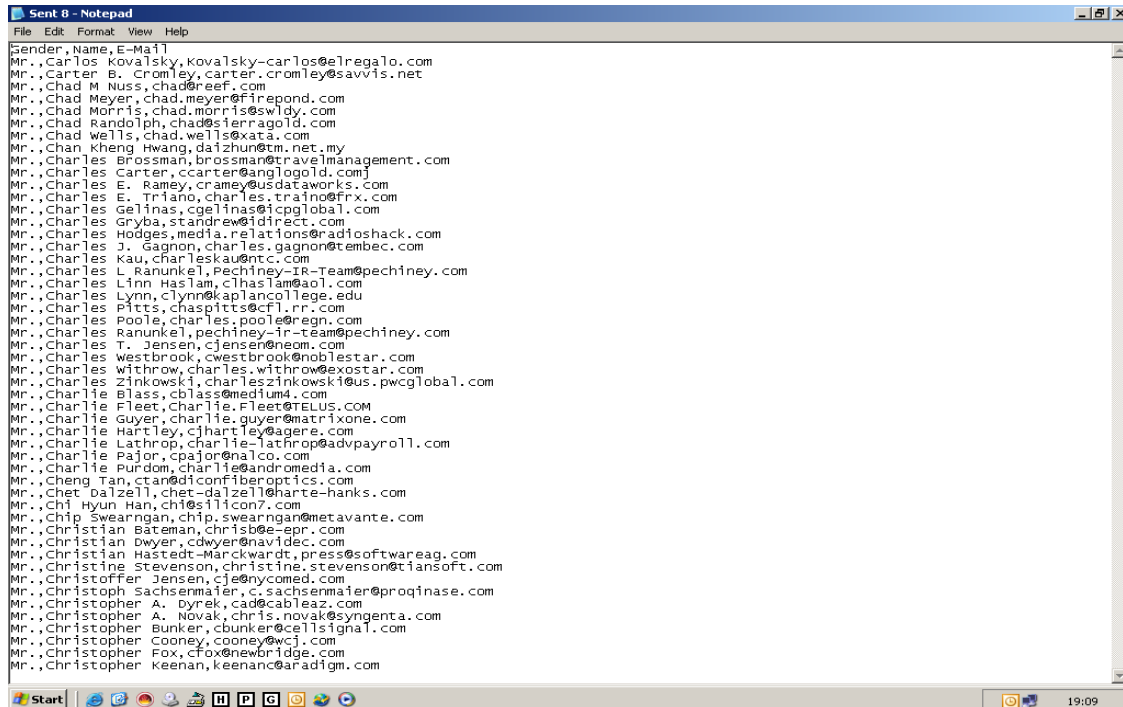
Figure 9 - e-Announcer software



All the contacts had to be transformed into TXT format files (see Figure 10). In this file, we had to identify gender, name and e-mail of each of the contacts we wanted to reach, in order to produce customized e-mails. This was also a time-consuming process since it requires going through all the contacts one-by-one. The “copy-paste” system from Excel to TXT is possible, but files had to be re-organized as in the TXT file. Comas are used to separate the 3 categories of information we wanted to use: gender, name and e-mail. The e-Announcer program is user-friendly. After prepared the TXT file, we just need to write an e-mail and insert “Gender” and “Name” in the correct place. Each e-mail that is

sent is then personalized, differing according to the gender and name ascribed to each situation.

Figure 10 - Example of a TXT file with contacts to interact with e-Announcer



As the text in the e-mail as well as the questionnaire were both in English, we decided to use English greeting forms (“Dear Mr. John Smith”) with “Mr.” for men and “Ms.” for women. In 140 cases we had only the e-mail address and no name at all. We opted to send the mail with the greeting – “Dear Sir/Madam”. As free e-Announcer only allowed sending 50 mails each time, we had to build several files of 50 contacts each. 102 files were then built and sent, a task that also took long time. E-mails were sent on the 30<sup>th</sup> of May. Several files in “Personal Folders” of Microsoft Outlook were created in order to store all the information and release the main server from e-mails overloading.

Several undelivered e-mails started arriving to the mail box. After three days we had a total of 2,150 undelivered e-mails, meaning that only 2,926 e-mails had reached its target. 190 messages of “Out-of-office” were also received. In 28 of these cases new e-mails were sent to alternative e-mails presented in the first ones. We soon realised that only 57.64% of the contacts were achieved and that this would decrease a lot the responses we would be able to get from the worldwide database.

We also realised that typing errors should have occurred when Thomson technicians inserted e-mails. We detected obvious situations (for example, “Microfost” instead of “Microsoft”; “Ann Smth” instead of “Ann Smith”; and “pepsi.com” instead of “pepsi.com”). Some of these were manually corrected. In any case, this, as well as situations in which an Internet address was written instead of an e-mail, made us believe that accuracy hadn’t been ensured. However, this could explain only a small amount of all the undelivered e-mails. Other situations as the extinction of e-mails, the foreclose of some companies and the exit from the company of the person we were trying to reach, may have also occurred. One major explanation may have also been the label “SPAM” that our message received, although we cannot determine exactly how this problem had affected our survey.

It is also important to make clear the need to refine the burden of undelivered e-mails we received. In fact, in some situations we detect that our mail server, as well as the target company mail server tried to deliver the message more than once. It is a procedure that depends a lot on the exchange e-mail service used to deliver the message, and of the delivery process of origin and target mail servers. In some cases e-mail service is more persistent and tries to deliver the message more than once, during a certain period of time. This meant that we had to get rid of undelivered e-mails notifications that were doubled or even tripled. This process also took long time and a meticulous effort.

### **Conducting the web-survey - Portugal<sup>11</sup>**

In order to get an overview of the Portuguese reality, and as this was not possible through the international database used, we had to choose another database. We decided to rely on two ICEP (Investimentos, Comércio e Turismo de Portugal) resources: PortugalInBusiness database and 300s larger exporter companies. ICEP is an institute ruled by Portuguese Ministry of Economy with the goal of promoting investment, trade and tourism in Portugal. This proceeding of approaching firms was different from the previous one in the sense that we would reach here Portuguese firms acting

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<sup>11</sup> We will only refer here to the databases used.

internationally, but not necessarily involved in alliances. It was not possible to obtain, from that universe, a subset of companies involved in international partnerships. In any case, we found that addressing to that universe would be a good start to refine the sample and reach companies involved in that kind of international operations. This was also the opinion of several agents of ICEP that we interviewed. In fact, there was no other database available with Portuguese companies acting internationally, with the exception of CEDIN's, which, in any case, had a different coverage, as we have seen.

### **A - PortugalInBusiness database**

PortugalInBusiness was the only database existent, based in a previous database ICEP - Portrade - created in 1998, and that achieved great success among economic agents. In any case, this approach to companies involved in alliances was not new. Nielsen (2003) had already used this same approach, using KOB database<sup>12</sup>, a database of Danish firms.

PortugalInBusiness is a public database available at [www.PortugalInBusiness.com](http://www.PortugalInBusiness.com) with 7,790 companies, and which objective is the disclosure and promotion of Portuguese products and services, as well as the promotion of Portuguese brands and image. The database is addressed to foreign economic agents and all the information is disclosure in English. The information given was collected through inquiries that ICEP has sent to companies and through data ICEP got from INE (Instituto Nacional de Estatística), the Portuguese statistics institute. The database exists since the last trimester of 2002 and it is updated periodically, although not regularly. In any case, there are no e-mails updating; only new companies are inserted. From all the data PortugalInBusiness gathers, 5,706 companies are listed through the use of a generic search engine<sup>13</sup>. From these, 4,139 companies had an e-mail address and we sent e-mails to all those. An advantage of this database was the inclusion of the name of the contact person in approximately 80% of the cases. So, we opt for sending a personalised e-mail to all those and a generic one to those e-mail contacts nameless.

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<sup>12</sup> "KOB database is a comprehensive database of all registered Danish firms. The database is updated continuously by Kobmandtandens Oplysnings Bureau A/S." (p.320), in Nielsen, B. (2003), "An Empirical Investigation of the Drivers of International Strategic Alliance Formation", *European Management Journal*, Vol. 21, No.3, pp. 301-322.

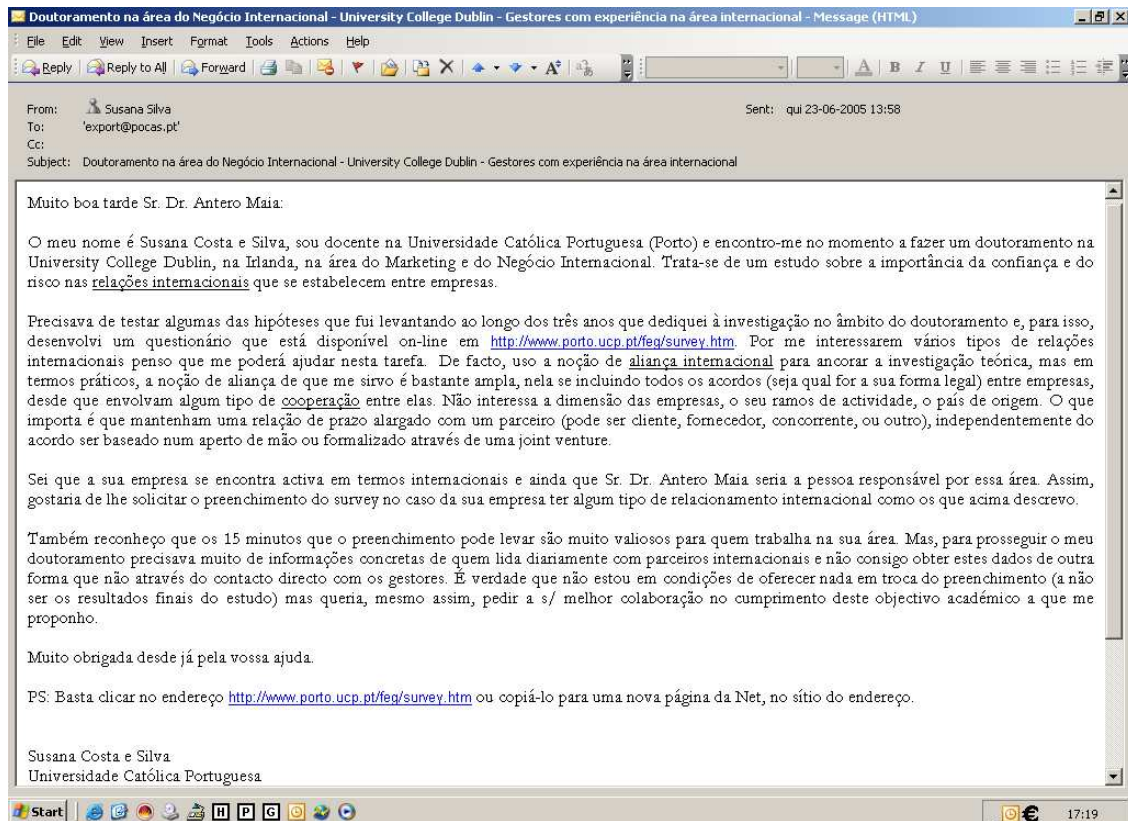
<sup>13</sup> Remaining companies can be obtained through an advanced search.

The information collected through PortugalInBusiness was not immediately available. We had to collect it, case by case. This process included the download of a page where there was commercial information on the postal address of the firm, industry sector, brands used and export markets served. After the download of this page, we had to download another one in order to obtain the e-mail address and the name of the person in charge for international operations. This was a very time-consuming process that took us, along with the task of preparing the TXT files and the sending process, almost one month to complete. All of these tasks could have been subcontracted but, to a lack of financial resources, were not.

We opt here for sending the link of the survey embedded in an e-mail message in Portuguese. The message was adapted for Portuguese respondents (see Figure 11). Here we opted for a brief description of alliance as in the Portuguese business language this word may cause some resistance. It is normally associated with large-sized companies and therefore we had to inform about its broad interpretation. We also use a very close approach to show Portuguese managers that their help would be of use for a research purpose of a Portuguese researcher. In every other sense, the approach was similar to the one in English.

Whenever that information was available, we use academic titles because in Portugal there is a widespread use of academic titles in everyday life (Bennett and Brewster, 2002).

Figure 11 – E-mail model sent to the Portuguese database



The major problem we encounter in PortugalInBusiness database was not that different from the one we found with SDC - some of the e-mails were not working anymore. In fact, we realise that, with the advent of Internet and the launching of several e-mail providers, people changed e-mail addresses due to the ease of use, price and other factors. This means that previous e-mail addresses sometimes become inoperative and the database was not able to update this information as quick as it chased. We realise that some companies started their “e-mail activity” using e-mail addresses based on public main server’s Internet operators (e.g., [susana.silva@hotmail.com](mailto:susana.silva@hotmail.com), or [susana.silva@mail.telepac.pt](mailto:susana.silva@mail.telepac.pt)) and then change to company-based ones to accommodate the high volume of e-mail messages and subsequent needs. And, as the database was built in late 2002, several changes had, in the meanwhile, occurred in both, e-mail providers and companies. Thus, from the 4,139 e-mails sent out, only 3,351 reached their purpose, meaning that in 23.5% of the cases, we couldn’t reach our interlocutor.

In this process, we decide to experiment a new process of sending out the e-mails that we didn’t know when e-mails were sent for the Worldwide database. Instead of the e-Announcer, which allowed in its free version to send only 50 e-mails each time and,

because of that, took longer, we used the “Mail Merge” option of Word. Using this add-in, we were able to pre-visualize the e-mails and correct for any default as well as to send as much e-mails any time we run the program as we wish. This was not the case of the free version of e-Announcer in which pre-visualization option is not available and in which we have to create multiple TXT files of 50 e-mail contacts each. In what comes to the main operational features, both software work in a pretty similar way (the same TXT file can be used without any change in Mail Merge). In any of these we had SPAM problems. Several e-mail messages were received demanding the completion of an additional security procedure to confirm that indeed the e-mail was sent by a person and not by a computer. We reply to these, but unfortunately this was only asked in a short proportion of e-mails. Some of the undelivered messages notifications allowed us to realise that in some cases our message was considered SPAM mail.

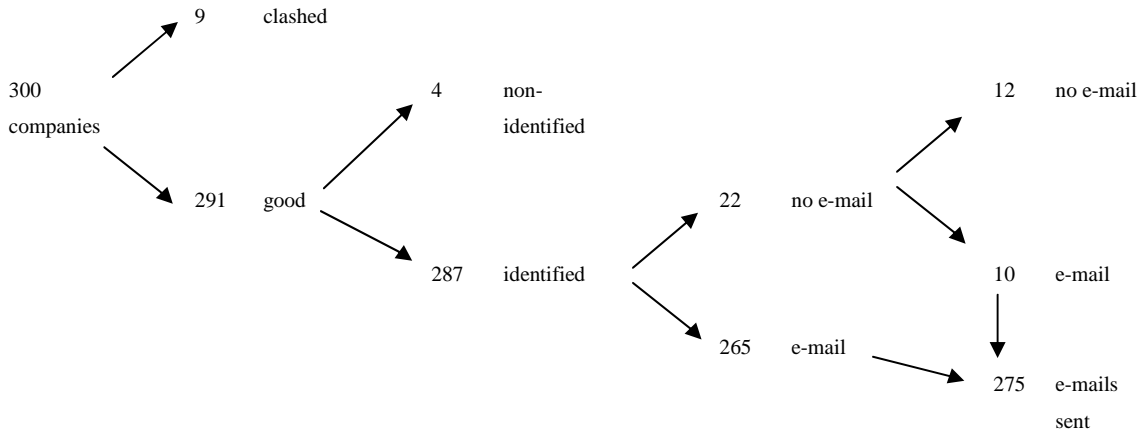
## **2 - 300 larger export companies' database**

ICEP also gave us access to a list of the 300 larger Portuguese export companies. From these, we exclude the cases in which the company names clashed with the ones in PortugalInBusiness, which happen in only 9 situations. For the remaining cases, we had to phone all the companies asking for the name of the person in charge for international operations, as the database didn't contain this information. We believed that, in spite of having e-mails we should, in any case, try to find out the name of the person to whom the e-mail should be addressed. If in some cases we had access to personal e-mails, in most of the cases we had to use webmaster ones. Therefore, having a name became fundamental. The process of obtaining the name took us around one week. While confirming the name of the person, we also confirmed his/her academic title for the reasons mentioned before.

From the 291 companies remaining, 4 were not completely identified in the list. We didn't have any material to search here, so we drop those. We kept 287 situations, 265 of which with an e-mail address. In 22 situations we didn't have an e-mail where send the message. But we had telephone contacts, so we try to contact all those 22 and got 10 new e-mails. 12 situations corresponded to companies that probably were not active anymore, or were active under other addresses. 10 new e-mails were added to our list of

265 and we sent a total of 275 e-mails (see Figure 12), using the previous procedure: send the same e-mail model and use the Mail Merge option of Word.

Figure 12 - Diagram for e-mails sent using the 300 larger Portuguese exporters



In the phone call we tried, as much as possible, to confirm the correct e-mail. We could verify, like it was hypothesized in PortugalInBusiness, that e-mail addresses suffered changes in main domain (e.g., [jose.santos@ysp.pt](mailto:jose.santos@ysp.pt) and [jose.santos@yazaki-europe.com](mailto:jose.santos@yazaki-europe.com)). In this case, as the database was recent, changes were mainly due to proprietary alterations and subsequent changes in companies' servers. From the 275 e-mails sent out, 12 were accounted as undelivered, which produced an achievement rate of 95.6%.

### Computing the results

Next figures give an overview of the situation after all the mails sent (see Figures 13 and 14).

Figure 13 – Geographical distribution of e-mails sent

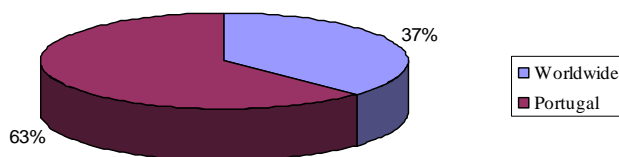


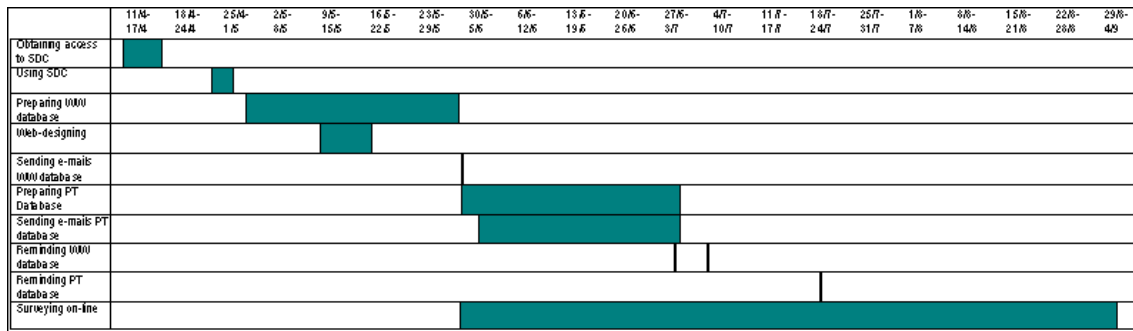
Figure 14 – Survey figures

Database	Initial number	Unusable/ Inexistent mails	Mails sent	Undelivered mails	Mails delivered	Achievement rate
<b>1. Worldwide (SDC)</b>	6,462	1,386	5,076	2,150	2,926	57.64
<b>2. Portuguese (Total)</b>	6,006	1,592	4,414	709	3,705	83.94
<b>2.1 PortugalInBusiness</b>	5,706	1,567	4,139	697	3,442	83.16
<b>2.2 300s P. larger exporters</b>	300	25	275	12	263	95.6
<b>Total (1. +2.)</b>	12,468	2,978	9,490	2,859	6,631	69.87

Only one situation of overlapping between the worldwide data and the Portuguese data was found, but, in a combined universe of 9,490 contacts, we found it irrelevant, having sent it just once.

While the Worldwide batch of e-mails was sent in just one day – 30<sup>th</sup> of May, the Portuguese one was sent gradually from the 2<sup>nd</sup> of June until the 4<sup>th</sup> of July. This was due to the difficulties we had in obtaining the entire list of companies from the PortugalInBusiness site, along with the time-consuming process of calling all the companies of 300s Portuguese larger exporters. At the same time, we thought that it would be better to send the e-mails as soon as we had enough information, rather than collect them all and send it just in the end (see Figure 15). This procedure would allow us to inform respondents about the survey sooner. During this process, we received several phone calls from Portuguese managers and company owners with several purposes. Some of them were not absolutely sure if their case would be appropriate to survey. Some wanted to inform us that they were operating internationally using entry modes that were not covered by our survey. In other situations, it was asked for how long would the questionnaire be still active in the Internet. We also received some e-mails asking the very same question. Some possible respondents wanted to assert some time to the process of responding the survey and were looking for a better occasion to do that, in a period less busy, as the holiday season that, in Portugal, normally starts on July.

Figure 15 – Chronogram



### Reminding respondents

This web-based survey is still active, and it will be until the end of August, as all the process started only recently. As some time passed over the delivery of e-mails to the worldwide database (5 weeks) we started the reminding phase to these contacts. So, while we were gradually sending e-mails to the Portuguese database, we also sent a second batch of reminding mails to the worldwide one.

On the 30<sup>th</sup> June and the 4<sup>th</sup> July, 5,048 reminder e-mails were sent to the initial list of contacts from SDC Platinum. We exclude, from the 5,076 e-mails sent in the end of May, the 28 that were presented us, at that time, as alternative contact e-mails in the out-of-office messages received. We received 2,213 e-mails informing that our message didn't reach the target mail. This means that the achievement rate decreased from 57.64% with the first mail to 56.18% with the follow-up one. The out-of-office automatic answer also decreased from 191 to 144, but kept high. We attribute this to the periods in which e-mails were sent – near Memorial Day and Independence Day bank holidays in the United States, the main country to where worldwide e-mails were sent.

### Discussing some results of the survey

In total, 9,490 mails reached the target. By the 15<sup>th</sup> of July we had 212 answers<sup>14</sup> (see Figure 16). We got a total of 29 e-mails received from people decline participating in our study. From this number, only 4 were received from the Portuguese sample used.

<sup>14</sup> We remember that the survey can still be completed until the end of August. Therefore we expect to have this figure increased.

We also received 50 e-mails from people informing that their company was not involved in any case of international alliances. In any case, we always acknowledge the e-mail and, whenever possible, we gave additional information. In some cases, it was possible to persuade some respondents to respond when arguments as “scarce time” or “high number of surveys received” were used.

Figure 16 – Response rates until the 15<sup>th</sup> of July

Sample	Mails delivered	Responses	Response rates
Worldwide	2,926	44	1.5
Portuguese	3,705	168	4.53
Total	6,631	212	3.2

A quick analysis of the data, which is stored in an Excel file, allowed us to verify the existence an approximate number of 17 invalid questionnaires. Most of the invalid questionnaires are due to a complete absence of options made by respondents in the Likert-scale questions. We also realise that, in some situations, the same respondent answered immediately after, meaning that he/she made a mistake in the first turn and tried again right after. We know this through the use of the IP address, which was the same in both cases. Other cases were due to the filling of the same name in the space ascribed to the name of both, origin and target country.

From all the responses we got, 168 arrived from Portugal and the remaining 44 from worldwide, 20 of these coming from the U.S.A. This illustrates a very different response rate in the two sub-samples. A possible explanation for this fact may be the same nationality of the main researcher and respondents. In fact, there is evidence that Portuguese managers wanted to cooperate as they thought its contribution was important to the development of knowledge and expertise located in Portugal. We have evidence from this through the several phone calls and e-mails of encouragement received. They also felt that their experience and testimony would be appreciated, which is something that they value a lot, and is congruent with Portuguese managers characteristics identified in the Ad Capita and Cranfield University research on Portuguese managers (Bennett and Brewster, 2002).

In the second sample, several phone calls confirming the identity of the person in charge of international operations were also made, which may have also contributed for the increased response rate here. In some occasions we had inclusively the opportunity to talk with the person's clerk or with the person him/herself, what could have increased the chances of getting a response, as it worked as a pre-notice.

However, we think that the most important contribution came from the personal network of contacts of the Portuguese researcher. In fact, the previous experience of that researcher in companies, as a manager and as a researcher, was used to contact persons in the target company that might know the target person or even respond whenever that was possible. In some cases, when the e-mail with the survey arrived, the person had already heard about the study. In other cases, the person we contacted asked the target person to respond afterwards. Of course this procedure was used in a small percentage of cases (less than 5%). Even so, we think that it was a significant effort that produced very good results in terms of response rate. For instance, a new story was posted in the Alumni site of the Faculty of Economics and Management at the Universidade Católica Portuguesa. Also a contact in the Portuguese Internationalisation Fund offered to check our database and look for known persons to whom to call.

## **Conclusions**

This paper reflects a stage of a broader work that is still in progress. In what concerns the phase reported, it is still on going and we had reported only the main growing pains associated with the data collection. This process involved a much tougher work that we were expecting and than it is commonly realised. Are those difficulties and some hints associated with the learning process we have been through that we would like to make clear.

In literature it is already possible to find lots of researches that had been conducted using web-based surveys. We realised that each experience contained its own main growing pains and produced a set of warnings and recommendations. However, we realised that each case is a "learning by doing" experience and that each situation always involve a trade-off between goals and resources.

Internet use has been flourishing since 1992 and became a tool for widespread communication after 1997. Since then it has been facilitating people's life by shortening distances and optimizing time, with obvious advantages for businesses. Researches also benefited a lot from this tool. Major advantages are ascribed to the ease of access to research done and in progress all around the world. Also facilitating empirical studies has been asserted as an important advantage of Internet. Within it, web-based surveys became more and more used. And with its use, research on their advantages and limitations too.

In this paper we argue that potentialities imputed to Internet are indeed noteworthy. Although, we also found out that its use for surveying has also limitations that, in each case, researchers should try to minimize. Until recently only some researchers were using Internet as a mean of survey. Now it has become widespread all around the world. This can explain the novelty effect and subsequent high response rate verified initially (Zhang, 2000). However, that effect is disappearing and in some countries, like for instance in the United States (Grandcolas, 2003), is becoming so widespread that the other extreme can be reached - response rates can diminish due to overdose of Internet use and the tiredness of respondents. We felt this as we received several e-mails of people complaining about the extremely high number of surveys received every year. So, in this particular case, we experienced two different senses: a certain resistance to responding web-based surveys in the worldwide sample (1.5% response rate), where Internet is spread longer, and a certain inclination to answer in the Portuguese sample (4.53% response rate), where Internet is still in a development phase.

Concerning the widespread of Internet, we should state that there are currently some mechanisms also refraining the use of web-surveys, as the SPAM flag ascribed to several e-mail messages with unknown provenience. This obstacle depends a lot on the e-mail provider used, but we think it is drifted towards countries using Internet for long time. The effect of time can also be pernicious in what concerns outdated of mailing lists. As Zhang (2002) refers, keeping an updated mailing list can produce much better results. We faced this problem in the three databases used and realised that this was the cause for having so small achievement rates, with consequent damages in responses obtained. Therefore, having an updated-mailing list and maintain the contact with listed

people on a regular-based is a suggestion that we can leave for future works. Another suggestion has to do with the date in which contacts are established. A correlation seems to exist between the high number of out-of-office messages received and the date where e-mails were sent – next to bank holidays. So, depending on the countries involved in the study, it is important to previously analyse days chosen to sent out e-mails.

In the Worldwide sample, we also use a very friendly approach to our interlocutor, whenever that contact was asked. In fact, when we received an e-mail we always replied immediately in a professional but also pleasant way. Even if we were just being informed that the company will not participate, we still acknowledge the e-mail. Whenever there was space for it - sender arguing about the reasons why he would not respond the survey - we contra-argued. Done in a very educated and professional manner this allowed us to achieve some few more completed questionnaires. In any case, the response rate is, so far, very low. We attribute this mainly to 2 reasons: the overload of questionnaires managers receive currently everyday and the overload of SPAM mail also currently received everyday, responsible for a wrongly classification of our message as “Junk Mail”. We feel that there is not much more that we can do regarding this sub-sample in order to increase response rate as reminders were already sent.

In the Portuguese sample, we also realised that the way of addressing respondents was considered crucial in the decision-making process of respondents. In several cases we realised that managers appreciated the recognition of their participation on the study, as well as the way chosen for addressing the subject. The very good level of Portuguese used in the cover letter, as well as the definition of international alliances in it, was valued. These, along with the use of a considered “very-modern” way of surveying and the seal of a foreign university, gave respondents the idea that the study was a very professional one. Feeling that their experience and knowledge would have an important contribution also increased the response rate in this sub-sample. This also gave rise to a certain positive “worth-of-mouth” phenomena that helped scattering the study. It was also possible to realise the existence of a certain pride of Portuguese managers in having a congener researching internationally. Portuguese, a people where the hierarchical distance is high (Hofstede, 2001), normally get along very well with well-succeeded

compatriots and feel that their success is also theirs. This, along with other national characteristics, may increase the wish of participating in a study promoted by one of their countryman.

We haven't send reminders to this sub-sample yet. More filled questionnaires from this sub-sample should still be received: the survey is still on-line and we received several contacts asking for the deadline. Several people confirmed their participation but explained that, due to an overload of work<sup>15</sup> and the proximity of the holiday season, the completion would be done during July/August. This made us think that sending reminders in the third week of July, and not right now, would be better.

Being based in Portugal gave the main researcher the chance of maintaining a close contact with the Portuguese management reality. Also recognition of Portuguese people features and institutions may help explaining the high distance response rates obtained. This made us believe that if we had an equivalent knowledge in another country, we could have the chance of replicating this response rate there. So, probably widening the study to a worldwide sample should be done within an international team of researchers, each one with expertise in his/her own country idiosyncrasies. Those peculiarities are hardly known by someone that is not living, or even national, of the target country. It encapsulates a kind of tacit knowledge very difficult to transmit or replicate. Therefore, we clearly advocate that in this kind of study the use of multi-country teams is fundamental to success.

Furthermore, we would assert that the use of mixed-modes of survey can produce better results, when adapted to each circumstance. Several studies claim that a combination of several methods may produce better results. In this study we used only e-mail and Internet for approaching our contacts. However, in the second sub-sample also telephone contacts were used for confirming contacts as well as for pre-noticing, in some situations. In any case, what we really think it was distinct here were personal contacts and its combination with previous modes.

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<sup>15</sup> An increase in the VAT rate in Portugal occurred in the 1st of July, leading companies to a large last-minute effort in their accounts in order to accommodate this change.

As we previously mentioned, our approach to this task can be characterised by a “learning by doing” approach. One of the hints we can withdraw for future researches is a correct evaluation of all the restrictions involved in each survey regarding the type of research that is being carried out. This trade-off may lead researches to a different alternative - equating hiring someone to perform the “hard” work of pulling out the data from web-based databases, refining databases, producing the TXT files, sending e-mails, etc. In any case, the researcher has to know how to perform those tasks in order to give the assistant the adequate training. But this would relieve him from work that takes a lot of time and can easily be done by an assistant. This also helps justifying the need for some financial support in this kind of research.

Another withdrawn from this paper is the obvious lack of a database that meets the expectations of a researcher in international alliances. In fact, none of the databases we checked produces clear and updated information on data on international alliances. Existent databases are expensive, non-updated and with no precise data on fields that are important for researchers. This may be due to its creation purpose, which is, in some cases, oriented for business purposes and not research ones. Therefore, this may justify the creation of databases adapted to academic use, task for which financial support is vital too.

## References

- Archer, T. M. (2003). "Web-based surveys." Journal of Extension **41**(4): 1-5.
- Bennett, C. V. and C. Brewster (2002). Portuguese Management Culture: results of a survey of senior expatriate managers working in Portugal. Lisbon, BusinessInPortugal: 27.
- Cainarca, G. C., M. G. Colombo, et al. (1992). "Agreements between firms and the technological life cycle model." Research Policy **21**: 45-62.
- Caloghirou, Y., S. Ioannides, et al. (2003). "Research joint ventures: a critical survey of the theoretical and empirical literature." Journal of Economic Surveys **17**: 541-570.
- Cantwell, J. and M. Colombo (2000). "Technological and output complementarities: inter-firm cooperation in information technology ventures." Journal of Management and Governance **4**: 117-147.
- Cole, S. T. (2005). "Comparing mail and web-based survey distribution methods: results of surveys to leisure travel retailers." Journal of Travel Research **43**(4): 422-430.
- Colombo, M. (2003). "Alliance form: a test of the contractual and competence perspectives." Strategic Management Journal **24**(12): 1209-1229.
- Contractor, F. and P. Lorange (2002). Preface. Cooperative strategies and alliances. F. Contractor and P. Lorange. London, Pergamon: xi-xiv.
- Delerue, H. (2004). "Relational risks in European biotechnology alliances: the effect of contextual factors." European Management Journal **22**(5): 546-556.
- Dillman, D. A. (2000). Mail and internet surveys: the tailored design method. New York, John Wiley & Sons.
- Fraze, S., K. Hardin, et al. (2003). "The effects of delivery mode upon survey response rate and perceived attitudes of Texas Agri-Science teachers." Journal of Agricultural Education **44**(2): 27-37.
- Grandcolas, U., R. Rettie, et al. (2003). "Web survey bias: sample or mode effect?" Journal of Marketing Management **19**: 541-561.
- Hagedoorn, J. and J. Schakenraad (1992). "Leading companies and networks of strategic alliances in information technologies." Research Policy **21**: 163-190.
- Hagedoorn, J. and R. Narula (1996). "Choosing organizational modes of strategic technology partnering: international and sectoral differences." Journal of International Business Studies **27**(2): 265-284.
- Hagedoorn, J. and B. Sadowski (1999). "The transition from strategic technology alliances to mergers and acquisitions: an exploratory study." Journal of Management Studies **36**(1): 87-106.
- Harbinson, J. R. and P. P. Jr (1998). Smart alliances - a practical guide to repeatable success. San Francisco, Jessey-Bass.
- Hofstede, G. (2001). Cultures consequences: comparing values, behaviors, institutions and organizations across nations. Thousand Oaks, The Sage.
- Kaplowitz, M. D., T. D. Hadlock, et al. (2004). "A comparison of web and mail survey response rates." Public Opinion Quarterly **68**(1): 94-101.
- Kiernan, N. E., M. Kiernan, et al. (2005). "Is a Web Survey as effective as a mail survey?" American Journal of Evaluation **26**(2): 245-252.
- Kim, Y. and N. S. Vonortas (2004). Determinants of technology licensing. Washington, The George Washington University: 26.
- Kogut, B. and H. Singh (1988). "The effect of national culture on choice of entry mode." Journal of International Business Studies **19**: 411-432.

- Magriço, V. (2001). Alianças Internacionais das Empresas Portuguesas num Contexto de Globalização Tecno-Económica. Instituto Superior de Economia e Gestão. Lisboa, Universidade Técnica de Lisboa: 547.
- Magriço, V. (2003). Alianças internacionais das empresas portuguesas na era da globalização. Oeiras, Celta Editora.
- Narula, R. (1999). Strategic technology alliances by European firms since 1980: questioning integration? European integration and global corporate strategies: are they in harmony or conflict? F. Chesnais and G. Ietto-Gillies. London, Routledge.
- Narula, R. and J. Hagedoorn (1999). “Innovating through strategic alliances: moving towards international partnerships and contractual agreements.” Technovation **19**: 283-294.
- Nielsen, B. B. (2003). Managing knowledge in international strategic alliances: theory and practice. Department of International Economics and Management. Copenhagen, Copenhagen Business School.
- Porporato, M. (2005). Uses of management control systems in international equity joint ventures: an empirical study of its monitoring and coordination role. An International Meeting of the American Accounting Association, San Francisco, California.
- Richardson, G. B. (1972). “The organisation of industry.” Economic Journal **82**: 883-896.
- Sánchez-Lorda, P. and E. Garcia-Canal (2005). “Competition for external resources, entry order and the stock market reaction to alliances and acquisitions.” Management Research **3**(3): forthcoming.
- Vivio, N. (2004). Alliance strategies: case studies. Washington, The George Washington University: 13.
- Zhang, Y. (1999). “Using the Internet for survey research: a case study.” Journal of the American Society for Information Science **51**(1): 57-68.

## Appendix 1

Bureau Van Dijk has data organised in four categories:

1. Company data – international
2. Company data – national
3. Economic & other data
4. M&A data

### 1. Company Data – International

AMADEUS	Is a comprehensive, pan-European database containing financial information on 7 million public and private companies in 38 European countries. It combines data from over 35 information providers (IPs).
AQUITE	Is a research tool that helps the identification of who is producing superior equity research. It also indicates which companies are best (and worst) at meeting expectations. It offers a detailed, quantitative measure of equity research. It is valuable for people interested in fund management, investor relations, corporate finance, banking and credit, as well as brokers.
BANK SCOPE	Is a comprehensive, global database containing information on public and private banks. From August 2004 its coverage is increasing to 24,000 banks around the world. It combines data from the main information provider, Fitch Ratings, and 6 other sources, with software for searching and analysis.
FACT	Is a framework that uses “live” data from BvDEP’s products and combines it with other elements and comments, to give a detailed credit rating for organisations. Provided as a Web solution, FACT allows you to manage your credit risk and gives an instant overview of your exposure. FACT also integrates Fitch Risk CreditVantage’s CRS credit modules to offer the option of automated credit analysis. This means that customers can now use inbuilt expertise if they don’t have their own analytical resources, or compare their own analysis against the experts’.
INVIEW	It presents a global analysis of equity-holding investment funds and the quoted companies in which they invest. Detailed institutional shareholding of companies around the world is provided. It also allows analysing the objectives, strategy and investments of individual funds. The information is provided by Heale Financial Ltd, an independent data provider that maintains one of the world’s leading fund compositions databases.
ISIS	Is a comprehensive database of detailed reports on public and private insurance companies around the world. ISIS contains information on approaching 7,000 companies with a total of 7,600 statements.
ORBIS	Is a global database which has information on over 13 million companies (June 2005). ORBIS now includes advanced search and analysis software so you can identify and evaluate companies around the world using just one BvDEP product.
ORIANA	Is a comprehensive, database containing financial information on 85,000 public and private companies in 17 countries in the Asia-Pacific region. It combines data from various information providers (IPs), each of which brings local expertise.
OSIRIS	Is a comprehensive database of listed companies, banks and insurance companies around the world.

## 2. Company data – national

AIDA	Is a database of company accounts, ratios, activities, ownership, subsidiaries and management for 280,000 live Italian companies. Consolidated accounts are available for over 3,000 companies. AIDA also incorporates a database of scanned images of the year end reports and accounts for approaching 110,000 companies.
ASTREE	Is a database of summary information for up to 800,000 French companies. The information is provided in 2 modules: the top 400,000 companies and all 800,000 companies.
AURELIA	Is a database containing profiles of 120,000 Austrian companies. The information includes contact information, the company's logo, activity (trade description and WZ codes) a financial summary and management. Information can be searched by: turnover, capital and number of employees.
BEL-FIRST	Is a database containing detailed financial information on 320,000 Belgian companies and 4,000 companies in Luxembourg. Summaries for a further 700,000 Belgian businesses are also available.
DAFNE	Is a database of detailed financial information for 30,000 German and Austrian companies.
DAF SALIENS	Is a database that identifies links between the companies and individuals that are associated with France's 1,000 quoted companies. It contains Dafsa's well-known DAFSALIENS and DAFSAGROUPS databases.
DASH	Is a comprehensive database of companies, directors and shareholders and the links between them.
DIANE	Is a database containing detailed financial information on 924,000 French companies with up to 10 years of history per company. Consolidated accounts are available for 2,000 companies.
EMMA	Is a database of summary information for the 1,000,000 companies that are actively trading in the UK.
FAME	Is a database that contains information for companies in the UK and Ireland. FAME contains information on 2.8 million companies, 1.9 million of which are in a detailed format.
ICARUS	Is a database containing profiles of 1.4 million public and private US companies and 175,000 public and private Canadian companies.
JADE	Is a database containing information on up to 370,000 Japanese companies. The CD-ROM contains information on 110,000 companies, the internet version 370,000 (June 2005).

MARKUS	Is a database containing summary information on over 920,000 German and Austrian companies.
MINT	It gives access to a wide range of high quality information covering companies, news, directors and market research.
NOMINUS	Is a database that contains a detailed analysis of the share ownership of all companies quoted and registered on the London Stock Exchange, including the AIM and Investment Trusts. NOMINUS adds intelligence to publicly available information to give a detailed picture of who is investing where.
ODIN	Is a comprehensive database containing financial information on approaching 640,000 public and private companies in the Nordic region covering, Norway, Sweden, Finland and Denmark. It combines data from eight sources with software for searching and analysis.
REACH	Is a database of information on Dutch companies. REACH is a modular product; in total it contains information on over 1.5 million companies. It combines detailed financial information for some companies and profiles for others, as follows: The financial modules have descriptive information plus: <ul style="list-style-type: none"> <li>- Top 5,000 companies – very comprehensive financial information</li> <li>- Top 30,000 companies – profit and loss account and balance sheet</li> <li>- Top 250,000 companies – balance sheet only</li> <li>- Marketing module – descriptive information on all registered companies</li> <li>- The Director module is a searchable database of directors with biographical information</li> </ul>
SABI	SABICompany accounts, ratios, activities, ownership and management for over 650,000 Spanish and 80,000 Portuguese companies.

### 3. Economic & Other Data

BIEN	Is an electronic version (both on disk and the internet) of the Base d'Informations Economiques Notariales. It covers 1.7 million real estate transactions that have taken place in the Ile-de-France departments of France since 1990. The transactions include both residential and commercial properties. Bien is the only comprehensive database that reflects the actual state of the real estate market.
CAMEO	Is made up of six modules: TRACE, BATCH, AREA PROFILE, DATA, PROFILING and POSTCODE CLASSIFICATIONS. Each module allows using the data in different ways. Use just one module or a combination. Cameo's applications range from using the Electoral Roll for verification
CHELEM	Is an information tool that facilitates the analysis of national economic performance relative to the global economy. CHELEM consists of 3 modules, all of which incorporate the same 61 regions.
EIU CityData	Is a database of over 327 price and salary levels providing information on the cost of living in 123 cities around the world. Historical prices are provided from 1990 and extend to current price levels.

EIU Country Risk Model	EIU Country Risk Model allows customers to customise and manipulate existing EIU risk scores from the Country Risk Service - a two year forecasting service monitors various types of risk in 100 emerging markets regrouped into 6 regions. The scores are created using a country risk model comprising 77 indicators, which are combined and weighted to give risk assessments for each country that can be meaningfully compared. EIU RiskModel allows viewing the underlying data, change risk scores and customise risk weights and to see the implications of your adjustments.
EIU Country Data	Is a timely and flexible database of annual, quarterly and monthly economic indicators and forecasts. EIU CountryData gives you access to 317 series on 150 countries or 45 regional aggregates, starting from 1980 and forecasting to 2007. In addition, EIU CountryData contains concise text summaries of the EIU's short-term political and economic forecasts on 181 countries around the world.
EIU MIF	Covering 60 major markets worldwide, EIU Market Indicators and Forecasts includes historic and 5 years of forecast data on industries, demographics, consumption, average wages, income levels, market size, infrastructure and the business environment. It provides detailed data and forecasts on a full range of industries, including financial services, automotive, energy, healthcare, telecoms, technology, consumer goods, food, beverages, tobacco, transport, travel and tourism. Containing over 500 series on each country and running from 1990 to 2007, EIU Market Indicators and Forecasts provides a unique picture of market size and growth potential. EIU DataServices is the ideal product whether you are planning a new investment or managing an existing one, assessing countries or comparing cities, looking for industry data or analysing the economic future.

#### 4. M&A Data

ZEPHYR	ZEPHYR is an information solution containing M&A, IPO and venture capital deals with links to detailed financial company information.
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