The make-or-buy public strategy. The case of government delivery of international aid in Spain

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Abstract
This paper seeks to answer the question of which international development projects are outsourced from the public bureaucracies when the contractor is a non-profit organization (NGO). The transaction cost economics framework is used to analyze the reasons underlying the outsourcing decision by isolating the transactional characteristics. The make-or-buy decisions made by the public agency in Spain for the international aid delivery projects during five years are analyzed. The results achieved shows that the international aid delivery projects developed as government subsidies present light formulation reports and more relevant contingencies than those developed through an NGO. This fact could make us suspect that the government subsidies are used to developed international aid delivery projects involving higher levels of complexity, uncertainty and asset specificity.

Key words: Make-or-buy decision; Transaction cost economics; public outsourcing; nongovernmental organizations.

Resumen
Este trabajo trata de responder a la pregunta referente a qué proyectos de cooperación al desarrollo son externalizados por el ente público a través una organización no gubernamental para el desarrollo (ONGD). Se emplea el marco teórico de la teoría de costes de transacción, y en concreto las características transaccionales para analizar las razones que fundamentan la externalización. Las decisiones tomadas por la Agencia española de Cooperación al Desarrollo durante un periodo de cinco años son analizadas. Los resultados obtenidos muestran que los proyectos de cooperación al desarrollo ejecutados como Subvenciones de Estado presentan formulaciones más difusas y contingencias de mayor importancia que aquellos ejecutados mediante subvenciones a ONGD lo cual puede implicar mayores niveles de complejidad, incertidumbre y especificidad en sus activos.

Palabras Clave: Externalización, Teoría de costes de transacción, Organizaciones no gubernamentales para el desarrollo.

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INTRODUCTION

There is a growing interest in public sector outsourcing (Jensen and Stonecash, 2004), however little is done when the contractor is a non-profit organization (O'Reagan and Oster; 2001; Millstein, O'Reagan and Oster; 2000). One of the services for which governments are using a make-or-buy strategy worldwide is represented by the *international aid delivery projects*. These projects are conducted both ways, inside the structure of public agencies or contracting with non-profits from their own country. The objective of this paper is to explain the choice between make-or-buy delivery by using transaction cost economic framework. Thus, this paper extends the public outsourcing literature by providing another setting in which to study outsourcing, and by expanding the institutional context to include non-profits.

International aid delivery has become one of the most important aspects of OECD and EU countries' foreign policy. Societies of developed countries have become the more and more sensitive about developing and poor countries needs. For example, the US applied 15.890 million Euros of its 2007's budget to international aid delivery projects, and this same year, Spain applied 3.754,6 million Euros. Moreover, there are international organizations such us the United Nations (UN) or the World Health Organization (WHO) which are developing huge projects in order to reduce the gap between countries' life conditions. Within those international and public agencies, nongovernmental organizations (NGOs) have an important role in the international aid delivery arena. In fact, in 2007 there were more than 300 international NGOs collaborating with the UN. Therefore, it is important to understand in which circumstances NGO are the efficient vehicle to deliver public international aid.

The first attempt to fully understand public aid delivery from an institutional perspective notices that there is a complex set of interrelationship among multiple actors (Gibson, Andersson, Ostrom and Shivakumar, 2005), among them, D. Zetland (2007) refers to NGO as a 'middle men' with an important role in the delivery chain of aid. However, there are questions remaining unanswered related to the conditions in which NGO versus public agencies are more efficient in the delivery of government international aid (Easterly, 2009). To fill this gap, we use transaction cost economics to the international aid delivery in which we evaluate those two different possibilities for developing international aid delivery projects: the public agency delivery of the international aid projects (make) and the international aid delivery through NGOs (buy).

Transaction cost economics tries to identify why firms exist, and the boundaries of the firms themselves (Coase 1937, Williamson 1985). Moreover, transaction cost economics explain why some transactions are developed inside the firm while others are developed by using the market (Williamson 1998). We derive those arguments to the public sector and, in particular, to international aid. Previous literature and other competitive theories have applied to other public sectors (Jarrell and Skibniewski; 1988; Hart, Shleifer and Vishny, 1996) and municipal contracting (Bajari and Tadelis; 2001; Hefetz and Warner, 2004; Levin and Tadelis, 2004).

Therefore, the objective of the paper is to explain the choice between make-or-buy delivery and to test to what extent the make-or-buy decision is based on the transactional characteristics of the international aid delivery. To achieve this objective, we focus on microeconomic analysis that means to look at international aid delivery project as unit of analysis. Thus, the development of an international aid delivery project is considered as the transaction whose characteristics lead the public agency to choose between an internal delivery and outsourcing to NGOs. Specifically, we test the make-or-buy decision depending on the following transactional cost features: *probity, complexity*, *uncertainty* and *specificity* of international aid delivery.

Our empirical setting is formed by the international aid projects funded by the Spain's government (in particular, bilateral non reimbursable official development aid –ODA-). The Spanish public agency for cooperation (AECID) provided us all the information to build a completely new and unique database. AECID has two main instruments for developing international aid delivery projects. On the one hand, there is the possibility of granting a subsidy to a NGO so this organization can develop the project by itself. On the other hand, the public agency could use a government subsidy and develop the project internally. Taking into account that AECID develops many projects all over the world, we have focus on the international aid delivery projects developed in Morocco and Ecuador from 2002 to 2006.

The rest of the paper is structured as follows. Section 1 introduces with a brief motivation the theoretical approach, transaction cost economics, under which the make-or-buy decision is explained. Section 2 analyzes the transactional characteristics of the international aid delivery projects and the implications of those characteristics over the make-or-buy decision. Then, in section 3, we present the empirical setting for evaluating the research hypothesis, and finally, in sections 4 and 5, some preliminary results and conclusions are drawn.

THE MAKE-OR-BUY DECISION

In 1937, with the paper ‘The nature of the firm’, R. Coase threw a question to the scientific world: ‘why do firms exist?’ He asked following the classic microeconomics assumptions that markets work in a perfect and efficient way and firms obtain no profit. However, he observed that firms did exist and made some profits, so the classical viewed of the market should be wrong. The answer to his question was that developing a transaction in the market has some costs. Those costs could be reduced by developing the transaction through a firm. Therefore, following Coase’s (1937) hypothesis, market and firms are two alternative ways for developing a transaction. Thus, a transaction could be developed inside a firm if the costs of doing that are lower than the costs of developing the transaction in the market, the make-or-buy decision appears. Firms have to decide whether making its activities by themselves or by buying goods and services in the market.

Once the make-or-buy decision was stated, a vast number of researchers have tried to know when each alternative mode of governance is more efficient. Williamson (1975; 1985) put this decision in the center stage and he developed transaction cost economics to explain under which conditions outsourcing appears more appropriate than the internal governance alternative. Among other scholars, Monteverde and Teece (1982) studied the choice between market procurement and internal production of automobile components by General Motors and Ford. Similarly, Scott Masten (1984) analyzed the make-or-buy decision in an aerospace firm which undertook for producing some components.

Other competitive theories also analyze the make-or-buy decision. Property rights theory studies the make-or-buy decision by focusing on the hold-up problem (Grossman and Hart, 1986; Hart, 1995). This theory tries to figure out why private ownership appears to have strong positive incentives for efficiency (Preker et al., 2000). Furthermore, in the last years, economic researchers have focused on the public sector. In particular, the application of modern economic tools to study traditional political science problems has become more and more popular, and this literature has created a new theoretical framework known as the public choice theory. As expected, the make-or-buy decision has been analyzed by using this new theoretical stream. Two examples are Hart et al. (1996) studied the prison privatization in the United States of America; and Jensen and Stonecash (2004) developed a literature review about the efficiency of public sector outsourcing contracts.

THE TRANSACTIONAL CHARACTERISTICS OF THE INTERNATIONAL AID DELIVERY

Following Alesina and Dollar (2000), the foreign aid literature can be divided into two parts. The first one studies the effects of foreign aid receiving countries, while the other investigates the determinants of foreign aid, namely which donor gives to which recipient and why.

Related to the second topic, there is an idealistic literature view (Lumsdaine 1993) which explains the aid allocation as a function of the recipient country needs (per capita GDP, life expectancy, democratic status, etc.). However, this "moral vision" contrasts with a bulky literature that has argued that strategic foreign policy concerns in the foreign aid allocation (Alesina and Dollar 2000). Several authors have postulated that donor's strategic and political interests could be more important as an explanation of aid allocation than the recipient country needs. In this sense, Davenport (1970), McKinley and Little (1977, 1979) discovered that during the Cold War, USA aid allocation pattern responds more to the necessity of building a bulwark against communism than to the recipient country needs. Thus, Alesina and Dollar (2000) determined that strategic and political variables such as UN voting patterns, colonial relations, or the recipient trade openness presented significance for explaining the aid allocation. This idea is also contained in Gibson et al's (2005) study of Swedish aid, since they discovered that political variables can "be more important determinants of aid allocation than formally stated objectives of aid".

The strategic and political variables importance may be identified through a new institutional economics concept. Thus, in his seminal paper, Williamson (1999) defined a concept which could affect the make-or-buy and named it *probity*. This concept could be understood as the honesty and integrity aura involving the international relations issues. In this sense, the probity may include the political and strategic aspects of the make-or-buy decision that are not explained by the classic transactional characteristics. So, if we could ask Williamson about how to deliver a specific international aid delivery project he would probably tell us that an in-depth analysis of the transactional characteristics of the international aid delivery project should be mandatory before deciding how to develop it. In this sense, we don't think that the probity effects are enough to decide whether developing an international aid delivery project internally or outsourced. From our point of view, all transactional characteristic have to be analyzed and the probity is just another element for the public agency to study before undertaking the make-or-buy decision. What we believe is that probity might bias the make-or-buy decision by "forcing" the public agencies to develop the international aid delivery projects internally since by doing it a country can prove its interest and

commitment with the developing country where the project is going to be developed. Thus, we can hypothesize:

H1: Probity makes international aid delivery projects more likely to be internally delivered.

Related with the probity issues there is the potential existence of a "hostage" or "small numbers" situation, Williamson (1999), the donor has to face with. The political atmosphere involving all international aid issues could penalize the project performance. When an international aid project is developed internally some ties emerged between the donor and the recipient country and the probity increases. In order to preserve these links the donor could be "forced" to keep investing money by developing several projects even though the performance of these is not ensured. Thus, the donor country becomes a hostage of the recipient country.

Easterly (2009) strengthens this "hostage" idea by pointing to a minimum threshold that has to be passed for reaching a productive international aid delivery project performance. The sentence "you can't build half a bridge", used by Easterly (2009) captured the flavor of the hostage situation since the obligation to "finish the bridge" (reach international aid delivery projects objectives) it's what makes the public agency to invest more and more.

An example of this "hostage situation" has recently appeared. August 12th of 2010, the news agency "Europa Press" informed that the unified police syndicate from Spain complains about a new incident involving policewomen in Melilla[1]. The problem is that Moroccans do not recognize policewomen as an authority. In fact, the Moroccan government has asked Spain to remove the policewomen from the border[2]. This request faces the objectives of several "gender equality" international aid delivery projects Spain has developed lately in the north of Morocco, and it would probably force the AECID to develop more projects in the future.

This hostage situation is not likely to occur when the international aid is outsourced since the NGO is the one who establish those links with the developing country and the original donor has not ties to look after. Thus, we hypothesize:

H2: A hostage situation is more likely to occur with internally delivered international aid projects.

[1] Melilla is a Spanish city located in the north of Morocco.
[2] People inside the AECID think that this request is a coerce action for getting more money invested in the north zone.

From the transaction cost economics the characterization of the international aid delivery projects can be done basically at three levels: asset specificity, uncertainty and frequency. In addition to these classic transactional characteristics and by following some economic literature guidelines (Joskow P. 1988a and 1988b; Masten S., 1984), we have included complexity as another important aspect the public agency may look at for deciding how to develop transactions, as international aid delivery projects. For the purpose of this paper, we focus on three dimensions: complexity, uncertainty and assets specificity[3].

However, before applying the transaction cost assumptions to our research there are several considerations we have to take into account. First of all, the parts involved in the international aid delivery outsourcing are atypical since the buyer is a public agency and the seller is a non-profit organization. For characterizing this rare contractual situation we can use the findings of O'Reagan and Oster (2001). These researchers studied the effect of government funding on board practices with a data set on the non-profit contractors of the New York City. They define complex transactions as those whose outcome quality is harder to determine. For these transactions governments choose contracting with non-profits rather than with profit organizations since these NGOs are subject to the nondistribution constraint and typically attract a more ideological staff. Due to this fact, governments believe they can rely on non-profits to supply services that are not so easily measured (2001). However, contracting with NGOs also has complications. In the same paper (2001) the authors discover that board members of NGOs receiving more government funding are significantly more likely to picture their board as passive. Other research has found that boards have an irrelevant role (Andrés, Martin and Romero, 2006).

Keeping in mind the special characteristics of the parts involved in the international aid delivery, we follow the transaction cost assumptions since our research problem does not involve the choice between profit and non-profit organizations as did in the O'Reagan and Oster but the choice between contracting with a non-profit and developing the project inside the public agency.

According to transaction cost economics, the more complex a transaction the more efficient an internal development results. In this sense, Tadelis (2002) and Tadelis and Bajari (2001) developed a model in which complex products are more likely to be procured internally. They define a project as more complex if

[3] We have not included frequency in our hypothesis tests since by considering the development of an international aid delivery project as our unit of analysis frequency takes the same value for all transactions (the development of international aid delivery projects is the main activity of the public agency for cooperation in Spain).

it is more costly for the buyer to provide a comprehensive design to the seller. This complexity makes projects more difficult to translate into complete contracts. Due to this contract incompleteness the necessity of ex-post changes and adaptations appears. Thus a complex project is more efficient developed internally since by *making*, all transaction costs derived from the ex post changes and adaptations caused by the contract incompleteness can be erased. Thus, we can hypothesize:

H3: Complex international aid delivery projects are more likely to be internally delivered.

Related to the uncertainty, we consider it as the risk that the donor bears due to the political and socio-economic constraints of the developing country where the project is developed (Andrés, Martin and Romero, 2006). According to Williamson (1989; 1999), under high levels of uncertainty an internal development of the transaction leads to a better performance. For sporadic transactions uncertainty does not involve a problem because with almost no cost new trading relations between parties could be easily arranged. However, when continuity matters uncertainty becomes a major aspect since all the contract adaptations which have to be undertake in order to face all contingencies could imply a huge cost, or could be impossible to undertake, which is even worse. As Williamson (1985) said “increasing uncertainty makes it more imperative to organize transactions within governance structures that have the capacity to “work things out”.

Jensen P. and Stonecash R. (2004) proposed that in the absence of uncertainty, the principal is able to observe whether the agent dedicated the desire effort level by observing the output generated - there is a perfect correlation between output and effort. However, under high uncertainty levels, the principal is not able to distinguish between the effects of the agent’s effort and random effects output, so the agent may act opportunistically. This problem is defined by economic literature as *moral hazard problem*. For overcoming this problem, the public agency may transfer risk to the agent, but following the standard contracting approach this comes at the price because the agent will charge a risk premium for bearing that risk. However, if the risk is extreme there may not be a risk premium high enough to cover this risk (i.e. the case of the poor service private contractors provided to the U.S. army during the Iraq war; see Krugman, 2003). This extreme risk is likely to appear in the international aid delivery since some of the recipient countries are facing a very unstable sociopolitical situation or even a war.

This last argument drove Jensen P. and Stonecash R. (2004) to state that there may be limits in the outsourcing of government services since some activities may need to remain in the hands of the state to ensure appropriate accountability and enforceability. These arguments make it possible to state the following hypothesis:

H4: Uncertain international aid delivery projects are more likely to be internally delivered.

Asset specificity is commonly defined as the extent to which the investments made to support a particular transaction have a higher value to that transaction than they would have if they were redeployed for any other purpose (McGuinness 1994). According to Williamson (1983) there are at least four different types of asset specificity: site specificity; physical asset specificity; human asset specificity; and dedicated assets. For the purpose of our research we only analyzed the impact of physical and human asset specificity. The reasons for ignoring the study of site specificity and dedicated assets derive both from the characteristics of our unit of analysis (the development of an international aid delivery projects) and the literature guidelines[4] [5]. Human asset specificity is viewed as the more influential type of asset specificity in the make-or-buy dilemma. Masten S. et al (1989) and Moteverde and Teece (1982) suggest that human rather than physical assets play a more influential role in decisions to bring production within the firm. In this sense, the importance of specialized and nonpatentable know-how is emphasized over the other asset specificity types in the decision to integrate production (Monteverde and Teece, 1982).

Following Williamson (1985) parties to a transaction commonly have a choice between special purpose and general purpose investments. For transactions that are supported by investments in special (specific) assets, autonomous trading (buy) will commonly be supplanted by unified ownership (make). This situation arises since investments in specialized (specific) assets are risky in that these assets cannot be redeployed without sacrifice of productive value if contract should be interrupted or prematurely terminated (Williamson (1985)). By developing the transaction internally the prematurely termination of the contract is avoid, thus, there is no need to redeploy specific assets and non sacrifice of productive value has to be assumed.

[4] Site specificity has no influence since the allocation of the international aid delivery project plays no role in the make-or-buy decision the public agency for cooperation in Spain undertakes.

[5] Dedicated assets are a very special type of asset specificity which only plays a role when a supplier – customer relationship exists (Williamson, 1983).

We have to keep in mind that according to Williamson (1985) asset specificity only takes on importance in conjunction with bounded rationality and in the presence of uncertainty. However, this does not represent any problem since bounded rationality is one of our theoretical assumptions and uncertainty is a common characteristic of the international issues which is analyzed in our fourth hypothesis. Thus, we can hypothesize.

H5: International aid delivery projects involving investments on specific assets are more likely to be internally delivered.

METHODOLOGY

In this section, we present the institutional setting, the process of collecting information, and the variables and measures.

Institutional setting

ODA is delivered by AECID using different instruments: bilateral and multilateral aid, and reimbursable and non reimbursable aid. Each four year, the Ministry of Foreign Affairs presents a Master Plan in which they unfold new instruments trying to adapt international aid to specific needs of recipient countries. Once the budget is approved by the Parliament, AECID distributes through its specific departments and units (Figure 1). Because the Master Plan is annually budgeted, AECID has a commitment with priority countries and CAD sectors. Once those decisions are made, the next step is to select specific projects to be delivered both ways, by the means of NGO or within the public agency itself. Projects are evaluated by experts inside the public agency and those evaluations will be presented to the selection committee whose members come from the political arena. The experts and committee members deciding which projects are going to be funded are similar for the in-house and outsourced projects. However, the selection is not always taken in the same committee and those committees are going to be working constantly along the year. Therefore this is process in which several factors have an influence from which, in this paper we want to evaluate the transactional ones.

Moreover, we focus on two of them: NGO projects and government subsidies (both belong to bilateral non-reimbursable aid). As we previously mentioned, on the one hand, the public agency has the chance to develop the international aid delivery project by contracting with an NGO. This contract can acquire the form of a NGO project, which is a whole of actions designed to reach a development specific objective in an established term, in a country and for a defined recipient population and whose effects last when its execution is finished. We consider this option as the “buy” of the make-or-buy decision since the public agency

does not developed the international aid delivery projects by its own but through a contract with a private organization. On the other hand, the public agency can develop the international aid delivery project by its own. This in-house option is materialized through an instrument called government subsidy. Government subsidies start with a political meeting between the ministers of the recipient and the donor country and they consist in an agreement between these two countries. The starting meeting is mainly a negotiation for setting the sectors the international aid delivery projects have to work in, but no specific international aid delivery projects are discussed. Once the main guidelines are designed, the public agency technicians decide which international aid delivery projects are the most appropriate in terms of fulfilling the objectives designed in the starting meeting. We have considered the government subsidies as the make in the make-or-buy decision since the public agency does not contract with any external organization for developing the international aid delivery project but it develops it by itself in the recipient country.

Regarding the data, our empirical population is given by the international aid delivery projects Spain developed in Ecuador and Morocco during the period 2002 – 2006 (we use just the bilateral non-reimbursable official development aid). Before explaining the process of gathering the information we comment the relevance of those two countries for Spain's international aid strategy.

Historically Morocco and Spain has shared a common past. This common history started with the migration of the muslins to Morocco after the Christians of Spain reconquered in 1492 the south of the European country. After that event, other facts have linked these countries. One of the most important could be represented by the invasion Spain made in the nineteenth century. This and other less important historical facts make the society of Spain to feel in doubt with the African country.

Focusing in the present, the main link between Spain and Morocco is represented by migration. According to the data from the Ministry of Labour and Immigration in 2010 there were 775.054 Moroccans living in Spain with a resident card. These 775.054 immigrants mean a 16% of the total migrations Spain suffered in 2008 and they make Morocco the first country in terms of migration to Spain. However, not all migration from Morocco is regulated and for example during the 2008 13.424 immigrants entered illegally in Spain by using boats. If we take a look at the media we find lots of examples of the problems Spain have with the illegal Moroccan immigration (i.e. April 4th of 2010 the *Agence France-Presse* (AFP) informs that thirty-three Moroccans were sentenced for assisting illegal immigration; August 31th of 2009 *El Mundo* informs that during august 2009 an average of 16 immigrants arrived to the cost of Spain each day).

The reasons for including Ecuador in our study are very close to those we have just explained for Morocco. As we all know in 1492 an expedition from Spain commanded by Cristobal Colon arrived and discover the Americas. For almost 300 years Ecuador was a colony of Spain so many link between the American and European country, being the Spanish language the most important one, were established. In fact, some people talks about Spain as the Motherland for the Latin-American countries. If we take a look at the present links the migration is again the most important one. According to the data from the Ministry of Labour and Immigration in 2010 there were 437.279 Ecuadorians living in Spain with a resident card. Those 437.279 immigrants make Ecuador the third country after Morocco and Rumania in terms of migration to Spain.

In terms of official development aid we have chosen Ecuador and Morocco since they are considered in the "group A" of countries (see Master Plans). This category includes low income countries where the international aid delivery has the chance for creating a long-term link and to be highly efficient. In fact, 66% of the funds of the public agency for cooperation are delivered to those "group A countries" (2009).

During the period 2002 – 2006 the public agency for cooperation and development in Spain (AECID) delivered in Morocco 55 government subsidies and 31 subsidies to NGOs. For the same period AECID delivered in Ecuador 97 government subsidies and 19 subsidies to NGOs.

Gathering of information

Since there is no data base including information about the international aid delivery projects Spain develops, we have been forced to create our own data base. In order to fulfil this task we have checked over the information the public agency for cooperation keeps in their records. However, we have faced several problems in this task.

The first one appears because there is no protocol for monitoring the international aid delivery projects so each instrument is registered in a different way. In this sense, we have found international aid delivery projects which could be analyzed in a quantitative way while others have almost no quantitative information. We have to be aware of this situation when comparing international delivery projects and instruments and therefore use simultaneously quantitative analysis with qualitative techniques.

The second problem we faced was related with the time period (2002 - 2006) we choose as the horizon for the research. By doing field work, we have realised that the dead line of the international aid delivery projects is not so deadly since

almost all projects have suffered extensions in its length. This situation is especially common in the government subsidies and has forced us to include international aid delivery projects which are alive nowadays and for which information gaps exists.

Another difficulty was related to the existence of linked international aid delivery projects. Sometimes the government subsidies which length is superior to a year are organized in several records (one per year). We have considered those different records as a unique international aid delivery project since all the different records shared a global objective and a unique public subsidy resolution. Another link between international aid delivery projects is the common subsidies that the public agency donates. This special donations are linked whether a specific international aid delivery projects or a group of international aid delivery projects. Despite of the fact that the public agency in Spain considers these common subsidies as an independent record we have considered those special subsidies as a part of the international aid delivery project they are linked to since its objective is no other than facilitate the performance of the project they are linked to.

Regarding these problems our final empirical sample is formed by fifty-one government subsidies, twenty of them were developed in Morocco and the rest (thirty-one) were developed in Ecuador; and forty-four subsidies to nongovernmental organizations, twenty-five were developed in Morocco and nineteen in Ecuador. Those ninety-five international aid delivery projects represents a 47,3% of the international aid delivery projects Spain developed in Morocco and Ecuador during the period 2002 – 2006.

Variables and Measures

Our dependent variable, the make-or-buy decision, is a dummy variable, which takes the value of zero when the international aid delivery project is developed internally through a government subsidy and the value of one when the international aid delivery project is outsourced (Martín Cruz and Gámez Alcalde 2010).

Related to the exogenous variables, we have developed several measures, based on previous empirical studies when possible and creating new ones when there was a lack of previous measurement. We have to mention that in the analysis we use ex-ante measures, except for uncertainty in which we introduce ex-ante measures as we present next.

Probity has been defined as the honesty and integrity aura involving the international relations issues. Since this is an abstract concept its valuation

presents significant troubles. In fact there are no measurements of the probity proposed in the literature. For the purpose of this paper and seeking after the robustness different ways of valuation are developed.

1. Probity is valuated using as a proxy the sectors (OECD CRS, Creditor Reporting System) in which each project is developed, to have the flavour of the necessity for more integrity and honesty for some of the OECD list of sectors. In this sense, we consider that the sectors identified in the Master Plan as priority are the ones that present higher levels of probity. Following this argument the probity is codified in a dummy variable which value is one if the sector in which a project is developed is considered in the Master Plan as priority.

2. Since the Technical Office for Cooperation is the main subsidiary of the Agency for cooperation in Spain in the recipient country we think that the closer an international delivery project location is to the Technical Office for Cooperation the higher the visibility of project's performance. Due to this fact, we consider that the distance in kilometres to the Technical Office for Cooperation (normalized by the total country extension) could be an indicator of the project probity level. In this sense we assume that the closer the international project location to the technical office for cooperation the higher the probity level.

3. Since probity is a concept encompassed more in the political framework than in the economic one we have consider the number of relevant political news in the main newspapers of Spain during the 2001-2006 period as a proxy of the level of probity a recipient country presents. Obviously, this measure attempts to show probity differences across countries, remaining constant for the different international aid delivery projects developed in a particular recipient country.

We have considered the hostage situation as the objection the agency for cooperation in Spain has to close the expedient of an international aid delivery project presenting a bad performance Just as happened with the probity, the hostage situation has not been measured in previous research. In this paper we proposed three different indicators of the hostage situation.

1. We consider that the existence of an exceptional delay in the international aid delivery project is a good indicator of the existence of a hostage situation. In order to translate this idea into specific

measures we first consider that the higher the number of extensions in the project deadline the more relevant the hostage situation is. We also consider that the higher the total delay (in months) of the project deadline the more relevant the hostage situation is.

2. In order to close an international aid delivery project record a favourable report of the Agency for cooperation external audit is mandatory. However, there are cases in which the agency for cooperation grants the possibility of passing the audit report more than one time. In this sense, we consider that the number of audit reports could be an indicator of the existence of a hostage situation so the higher the number of audit reports the higher more relevant the hostage situation is.

3. Sometimes, the Agency for cooperation in Spain develops international aid delivery projects which complement or continue with the objectives set in previous international aid delivery projects. We think that this project concatenation could be an indicator of the hostage situation. Following this idea we consider that the higher the number of previous chained international aid delivery projects, the more relevant the hostage situation is.

Complexity is a variable that has been evaluated systematically in transaction cost literature. For the automobile industry, Monteverde and Teece (1982) identified complexity by the engineering investment required for the development of a new automobile component. Tadelis and Bajari (2001) defined a project as more complex if it is more costly for the buyer to provide a comprehensive design to the seller[6]. Following the complexity definition given by Tadelis and Bajari (2001) we measure international aid delivery projects complexity by the number of activities specified in the formulation report. In this sense, we consider that complex projects makes the formulation report more difficult to specify so the more complex the international aid delivery project, the less complete its formulation report.

Knowing that a unique measure of the complexity could cause problems in the results robustness we come up with another indicator of this variable. Tadelis, Bajari and McMillan (2003) measured the project complexity in the construction sector as the (log) value of the project. We adopt this idea and postulate that the bigger the amount of money involved in the international aid delivery project, the more difficult for providing a complete and comprehensive design of the

[6] Following Tadelis and Bajari (2001) project T is more complex than project T' if it (project T) implies a higher number of states of nature that can occur ex-post.

international aid delivery project thus the more complex the international aid delivery project.

Williamson (1985) explains the effect of the uncertainty by linking it with the possibility of any contractual party for acting opportunistically. Attaching to this idea, we think that the length[7] of the international aid delivery project could be an indicator of the uncertainty level since the longer the international aid delivery project length, the more prospective for an opportunistic behaviour to concur.

Although there are several empirical research that have studied the assets specificity there is no standardized way for measure it. In fact, each researcher has to determine what assets are the specific ones for his or her research and what the best way for measuring them is. For the automobile components industry, Monteverde and Teece (1982) used the engineering effort as a measure of the degree of human asset specificity. Scott Masten (1984) developed a measure for the design specificity based on questionnaire answers given by the procurement team of an aerospace company as to whether an aerospace component were “specific”, “somewhat specific” or “standard”.

For achieving our research objective we have developed two different measures of asset specificity. The first one is related to physical asset specificity, and is based on the two budgetary concepts the Agency for cooperation in Spain distinguish in its accounting procedures. On the one hand, the Agency for cooperation in Spain has a budgetary concept (named “496”) which involves all expenditures in consumables. On the other hand, there is a budgetary concept (named “796”) which involves the investments needed for the correct performance of the international aid delivery project. We believe that the proportion of investment expenditures over the consumables ones is a god indicator of the physical asset specificity level involved in the international aid delivery project, so the higher the proportion of “796” over “496”, the higher the level of physical asset specificity.

The second measure is related to the human asset specificity and is based on the existence of a technical assistance, which consists in hiring a specific experts that to enhance the performance of some international aid delivery projects. We consider that the hiring of these experts involves an investment in specific human assets since the experts have a very specific profile which is attached with the international aid delivery project specifications. Following this

[7] We consider the length provided in the formulation report (theoretical length) as the proxy for the uncertainty level since deadline extensions are ex-post changes that cannot affect the initial make-or-buy decision.

argument human asset specificity is set as a dummy variable which takes the value of one when a technical assistance exists.

RESULTS

Our empirical analysis combines a quantitative analysis (exploratory and explicative) with a qualitative analysis (narrative analysis) and tries to illustrate when an international aid delivery project is outsourced. Therefore, we first begin our analysis conducting a descriptive study; and second, we test the explanatory model to verify the previously proposed hypotheses by developing a binary logistic regression.

Quantitative analysis (descriptive, ANOVA, and logistic regression)

Our first purpose in globally characterizing the make-or-buy decision has to do with the features of the international aid delivery projects developed as government subsidies or as subsidies to NGOs. Hence, we have divided up the sample into two groups: government subsidies (make) and subsidies to NGOs (buy). In table 1 we report the mean value of the most relevant variables for each group of international aid delivery projects, and the mean comparison tests and the associated p-value.

Although these results only have a descriptive purpose, we can assert, with high levels of confidence, that international aid delivery projects outsourced as subsidies to NGOs share some common characteristics (table 1). For instance, these international aid delivery projects present a small size, list a considerable number of activities in the formulation report, has a real length below two years with almost no delays and they have no relevant investments in specific assets.

Therefore, projects delivered by NGOs show a low complexity level measured both by the project size, and the hardiness for providing a comprehensive design. The asset specificity reasons are also supported since as we postulated low investments in specific assets makes the international aid delivery project more likely to be outsourced. The same situation occurs with the hostage situation hypothesis measured by the delays size and the real length of the international aid delivery project. On the contrary, the probity and uncertainty reasons are not so clearly supported (for a more detailed data see tables 2-5 in the appendix).

Table 1: Characteristics of projects (make-or-buy)

Mean value of each variable. The t-test allows the comparison of means and p-value is the threshold value to reject the null hypothesis of mean equality between groups.

Variable	No. observations	Make	Buy	t-test	p-value
Amount	94	472353.5	292664.3	6.13	0.015
Real length	71	31.45	22.63	6.50	0.013
Initial delay	70	2.00	0.74	1.96	0.166
Final delay	68	14.40	3.23	15.26	0.000
Number of activities	94	6.18	16.98	43.48	0.000
Theoretical length	89	20.77	18.71	2.59	0.111
Physical assets	92	0.41	0.23	9.48	0.003
Human assets	94	0.14	0.00	6.85	0.010
Distance to OTC	77	1.60	1.46	0.16	0.693
News	94	182.33	260.14	2.97	0.088
Number of extensions	69	0.90	0.79	0.23	0.631
CRS	89	0.61	0.61	0.00	0.962
Auditing reports	57	0.87	0.33	13.84	0.000
Number related projects (before)	92	0.59	0.00	18.55	0.000
Number related projects (after)	92	0.65	0.00	24.25	0.000

Despite some caveats are necessary to interpret the analysis, the results of the ANOVA analysis confirm the previous descriptives. Our second, third, and fifth hypotheses could be the explanations of the make-or-buy decision. In this sense we observe that the real length of the project and the final delay (hostage situation) are significant. The same situation arises with the amount granted by the AECID and the number of activities specified (complexity). Finally, the variables related with the asset specificity also are significant.

In sum, even though an explanatory analysis is required, we observe that transactional characteristics, such as complexity and asset specificity, are relevant issues for solving the make-or-buy dilemma.

As previously stated, the second step is an explanatory analysis, by using a binary logistic regression. This binary logistic regression is suitable when the dependent variable is non-metric and consists of just two groups so it is a perfect methodology for testing the dependent variable of our research.

Table 2. Results of logistic regression on make-or-buy

Variables		**Make-or-buy**	
		Beta	**Wald**
Constant		1.45	0.52
Probity		0.09	0.05
Hostage			
Real length		-0.08*	3.44
Initial delay		-0.25	2.53
Complexity		0.18**	4.66
Specificity			
Physical assets		-4.77**	4.38
Human assets		-20.64	0.00
Country (news)		3.32**	5.34
MODEL	–2LL value	29.144	
	Nagelkerke R^2	0.775	
	No. observations	62	
Classification matrix (corrected predicted)	Make	90.9%	
	Buy	97.5%	
	Total	95.2%	

To avoid problems of multicollinearity between variables (see table 1 in the appendix) we use as exogenous variables the physical asset specificity, the human asset specificity, the number of activities specified, the project real length, the initial delay, the distance to the Technical Office for Cooperation, and the country where the international aid delivery project was developed.

The results show the importance of the hostage situation, complexity and asset specificity variables (Table 2). Related to complexity we observe that the variable *number of activities* is statistically significant at a 95% confidence level. Furthermore, the positive sign of its coefficient corroborates our third hypothesis since the higher the number of activities specified, the lower the complexity level and the more suitable to an outsourcing decision[8].

[8] We have codified our dependent variable as 0 for the make (governmental subsidy) and 1 for the buy (subsidy to NGO).

The asset specificity hypothesis (hypothesis 5) is partially verified for the physical assets. As we observe, the variable *physical specificity* is significant at a 95% confidence level. The negative sign of its coefficient indicates that the higher the investment in physical specific asset the less suitable to an outsourcing decision.

The variable *real length* is significant at a 90% confidence level. The negative sign of its coefficient indicates that the higher the real length of the international aid delivery project, the less suitable to an outsourcing decision. As we can see our second hypothesis is confirmed and a hostage situation is more suitable to occur in an internal development.

Our first and forth hypothesis, related respectively to the probity and uncertainty are not verified since the variables associated to this transactional characteristics are not statistically significant.

Finally, we can measure the global goodness-of-fit indices through the forecast power our model posses. We see that our model has properly classified 95,2% of the international aid delivery projects. We observe that the forecasting power is a bit higher for the buy option (table 2).

Qualitative analysis (narrative analysis)

In order to shed more light on the make-or-buy decision AECID has to undertake, we discuss the following six international aid delivery projects from our sample in Morocco. Three of this selected international aid delivery projects are government subsidies and the other three are subsidies to NGOs. The main reason for comparing the “make” and the “buy” option through a qualitative analysis is the possibility to discover something the numbers are not able to show.

Before presenting the main results obtained of this qualitative analysis we have to expose the criteria we have followed for selecting these six international aid delivery projects.

1. First of all, we have selected international aid delivery projects granted all over the research period. Specifically, we have selected government subsidies granted in 2002, 2003 and 2005; and subsidies granted to NGOs in 2002, 2004 and 2005.

2. Related to the amount granted by the public agency in Spain, four of the six international aid delivery projects selected are situated around the mean value, and are supposed to represent faithfully the

characteristic of the government subsidies and the subsidies to NGOs. However, we have also selected an atypically big subsidy to NGO and an atypically small government subsidy. On the average, government subsidies imply a bigger amount of money than the subsidies to NGOs, so we want to test if a big subsidy to NGO possesses the same characteristics than the government subsidies (and vice versa).

We first present the results obtained from the qualitative analysis developed for the three government subsidies. In order to do that, we analyzed the representative ones so we can have an idea about the main characteristics of the government subsidies and then we compare them with the smallest one seeking for significant differences.

Government subsidy 1 (1.383.900,71€). The first document we analyzed is a three pages project file. This file gives the flavour of the international aid delivery project by describing the expected results and the activities to undertake for reaching them. We want to highlight that only five broad activities are listed and the explanation of them is really light (only one sentence). This could suggest high levels of complexity since as we have postulate, complexity is related to the difficulty for providing a comprehensive design of the international aid delivery project.

Activites:

- *La construction d'un point de debarquement amenage a Oued Laou et appui aux associations de marins pecheurs.*
- *L'elaboration d'une ettude touristique de la zone.*
- .....

(Translation)
Activities :

- *Construction of a landing point in Oued Laou and support to fishermen associations.*
- *Development of a tourist analysis of the Oued Laou zone.*
- ….…

Another aspect that deserves to be mentioned is the quantity and nature of the file modifications the recipient has requested. Talking about the number, we find 4 different requests. Three of these requests are related to project deadline extensions making a total delay of 42 months. The remaining one is related to an activity change consisting in the development of a solid waste management plan instead of the development of a tourist analysis of the Oued Laou zone that has been indicated in the original project file. All these modifications could be

related to the existence of high levels of uncertainty and a hostage situation which prevents the public agency for cooperation in Spain to close the project file in its time by forcing it to keep allowing more and more deadline extensions. Another aspect that could suggest the existence of a hostage situation is the request of an expert who *assures a proper project performance*. This request implies the granting of more money, and because it is necessary for the project performance the public agency for cooperation is forced to fund it.

Government subsidy 2 (706.297€). For the study of this government subsidy we have evaluated the formulation report. This report is developed by the recipient organization and tries to communicate the whole meaning of the international aid delivery project. This report has an extension of 43 pages and if we look at the results and activities description we observe they are "well" described.

Resultado 6
Descripción: En funcionamiento el laboratorio portátil de agua.
Indicadores objetivamente verificables: Número de análisis de agua

Actividad 1.2
Descripción: Instalación del riego por goteo en las parcelas piloto.
Insumos: Material de riego, mano de obra y maquinaria.
Costes: 59.002.469 ptas.

The previous analysis could imply the supplying of a comprehensive project design and the existence of low levels of complexity. So, attending to complexity we could assume that this project should have been developed through a subsidy to NGO. However, we have to analyze other transactional variables. We discovered that the public agency for cooperation in Spain has funded the contracting of an expert for assuring the coordination and correct performance of the international aid delivery project.

This additional grant could be interpreted as a hostage situation since the Public agency for cooperation in Spain is forced to invest more money in order to assure the achievement of project objectives.

Related to the uncertainty, we find that the deadline of the project has suffered an extension on nine months. Besides, an activity modification (consisting in an activities cancellation) has been request and approved by the public agency for cooperation in Spain. Both facts, could be interpreted as the existence of high levels of uncertainty, and could justify an internal development of the international aid delivery project.

Government subsidy 3 (225.000€). Despite of the fact that this subsidy is a small one its granting report only lists three (unspecific) activities in the project performance. This fact could be against the use of project size as an indicator of the complexity level. Attending at the delays in the project deadline we find a request for a twelve months extension related to a very complicated processing of technical and administrative nature. This could be interpreted as consequence of the existence of high levels of uncertainty.

Para ello se financiarán las siguientes actividades:

- *Suministro transporte e instalación de 2.400 ml de tuberías en PVC.*
- *Suministro transporte e instalación de 7.600 ml de tuberías en PEHD.*
- *Suministro transporte e instalación de 5 reductores de presión.*

Attending these circumstances, we are able to postulate that the size of the international aid delivery project is not enough to choose between an internal or outsourced development.

Here we comment the results obtained from the qualitative analysis of the three subsidies to NGOs that were selected. Before entering in the discussion of the results we notice that the analysis has been made in the same terms that we already developed for the government subsidies so a comparison is been possible.

Subsidy to NGO 1 (171.230€). The first aspect we want to highlight is that this international aid delivery project posses not just a formulation report but a power point presentation where a complete description of the project is made. The presentation agenda is formed by *title, entities, main lines, main objective, specific objective, expected results and activities, project schedule, performance indicators, project social action.* As we can see, this presentation provide more than just the flavour of the project but a integrate description of it. If we attend at the expected activities we find a list of thirteen different activities. This list is really detailed for a 171.230€ international aid delivery project. All this facts could be interpreted as an absence of high complexity levels surrounding the international aid delivery project.

Regarding the uncertainty or the hostage situation there is not much to say since the NGO made no request for project deadline extension, or technical support. In fact, the international aid delivery project is close by the time it was suppose to end.

Subsidy to NGO 2 (329.429,53€). In the same way that the first subsidy to NGO analyzed, this international aid delivery project possesses a formulation report in electronic format. Specifically, a fourteen pages word document explains the

main ideas of the international aid delivery project. Besides, there is an excel document which takes care of the economic aspects of the international aid delivery project by specifying the budget and the cost each activity has associated. Taking into account all this information we can assure that the project design is properly specified and the international aid delivery project complexity is not very high.

Actividad	Humanos	Materiales	Costes
Acondicionamiento de un tramo de pista y apertura de un tramo nuevo.	A.I. Identificación y Evaluación A.V. Personal Local (Coordinador, Secretaria, Vigilantes,Ingeniero, Técnico, 4 Obreros) A.VI. Personal Expatriado	A.II. Adquisición Terrenos y/o inmuebles A.III. Infraestructura, Construcción y Reforma Inmuebles	**132.312,44€**

One of the most significant characteristics of this project is that the developing NGO starts and finishes its activities before it was originally formulated. This fact gives us an idea about the NGO commitment and could be interpreted as low uncertainty levels surrounding the international aid delivery project. In fact, the NGO had no doubts about the project performance and it starts the formulated activities before the money granting.

Subsidy to NGO 3 (517.573€). Although this subsidy to NGO has a bigger size than the mean value (267.516,55€) its formulation report is really complete. Besides, we find several electronic files that specified the international aid delivery project characteristics and complete the formulation report. Among these files we stress the word documents which explain each of the project activities and the excel documents that inform about the project budget. All this aspects shows that even tough this subsidy to NGO has a bigger size its complexity level (measure by the Tadelis and Bajari 2002 definition) is not different than the level found in the other two subsidies studied before.

However, in terms of uncertainty and hostage situation this subsidy to NGO does present differences respect the other two subsidies studied before. The differences arrived from the existence of a request for a six months deadline extension and a budget modification. In this sense, this subsidy to NGO looks like the government subsidies studied since it presents high levels of uncertainty and some hostage situation.

From the qualitative analysis results some conclusions can be draw. First of all we have characterized both the government subsidies and the subsidies to NGOs in base to its formulation report and the modification request the recipients made

during the international aid delivery projects life. In this sense, we have concluded that government subsidies have a simpler formulation report in which a small number of general activities are specified. ON the other hand, subsidies to NGO have more complete formulation reports. Besides, these reports use to be accompanied to activities and budget descriptions in electronic files. All these conclusions drive us to postulate that the government subsidies present higher levels of complexity than the subsidies to NGO.

Related to the modification requests recipient organizations make during the international aid deliver projects life we have seen that the government subsidies use to present some performance troubles which force the public agency for cooperation in Spain to extend the projects deadline and in some cases, it is forced to grant more money in order to hire an expert who assures the project performance. On the other hand, subsidies to NGO use to finish by the time it was formulated. Those facts drive us to conclude that government subsidies present higher level of uncertainty and are more likely to "kidnap" the public agency for cooperation.
Finally, we test if atypical international aid delivery projects behave significantly different than the representative ones. In this sense, we haven't found significant differences although it is true that the big subsidy to NGO present modifications requests similar than those which appear in the government subsidies.

CONCLUSIONS AND LIMITATIONS

By applying the transaction cost hypotheses we have tried to shed some light over the make-or-buy decision the public agency face when develops an international aid delivery project. Taking into account the information obtained from the data some important conclusions can be draw. On the one hand, the results show that the transactional characteristics of the international aid delivery projects are the key for solving the make-or-by dilemma. In this sense, asset specificity and complexity seem to be the main transactional characteristics influenced the make-or-buy decision, and their hypotheses are confirm in the direction appointed by the transaction cost literature.

On the other hand, the make-or-buy decision is also influenced by the institutional framework surrounding the international aid delivery issues. The probity and some other institutional aspects such as the existence of a hostage situation could bias the make-or-buy decision taking it away from the classical transaction cost economic assumptions. These institutional aspects could represent the main topics for future research. Furthermore, they represent a challenge for the researchers since they are concepts hardly measurable.

Some limitations have to be stated. First, the probity indicators haven't result statistically significant. This situation may suggest that probity is not an important variable when facing the make-or-buy decision. We guess that these problems could arise from the measures that have been used. In fact, we still think that the probity is an important factor which could determine the make-or-buy decision and we will try to improve the measurement.

Related the uncertainty, we been faced the same problem and the measure for this variable has not resulted statistically significant. We claim that the measure for the hostage situation could be capturing part of the uncertainty, so in the future papers we should clarify these different concepts.

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APPENDIX A TABLE 1: Correlations

Correlaciones

		Subvención concedida por AECID en €	Importe de la AT €	Meses de ejecucion real	Meses de Retraso inicial	Retraso final consecuencia de las prorrogas concedidas	N actividades	pais	Periodo de ejecución en meses previsto en el informe de formulación del proyecto	Cociente entre lo presupuestado como 796 y el presupuesto total	Distancia del lugar del proyecto a la OTC relativizada por la extensión del país	Numero de noticias politicas relevantes	Numero de prorrogas concedidas	Numero de informes de auditoria para el proyecto	El sector esta en el plan director	Proyectos encadenados antes del actual	Proyectos encadenados despues del actual	ln subvencion AECID	AT_Dummy	makeorbuy
Subvención concedida por AECID en €	Correlación de Pearson	1	,477**	,681**	,218	,598**	-,064	,349**	,487**	,393**	-,072	,349**	,342**	-,044	,125	-,042	-,042	,881**	,574**	-,249*
	Sig. (bilateral)		,000	,000	,068	,000	,537	,001	,000	,000	,534	,001	,004	,743	,241	,690	,688	,000	,000	,015
	N	95	95	72	71	69	95	95	90	93	78	95	70	58	90	93	93	95	95	95
Importe de la AT €	Correlación de Pearson	,477**	1	,396**	-,022	,356**	-,078	,270**	,307**	,279**	-,069	,270**	,228	.[a]	-,011	-,102	-,047	,401**	,908**	-,238*
	Sig. (bilateral)	,000		,001	,856	,003	,452	,008	,003	,007	,546	,008	,058	,000	,921	,329	,655	,000	,000	,020
	N	95	95	72	71	69	95	95	90	93	78	95	70	58	90	93	93	95	95	95
Meses de ejecucion real	Correlación de Pearson	,681**	,396**	1	,214	,919**	-,083	,429**	,589**	,312**	-,168	,429**	,681**	,044	-,092	-,015	,009	,614**	,357**	-,291*
	Sig. (bilateral)	,000	,001		,077	,000	,486	,000	,000	,008	,188	,000	,000	,750	,441	,898	,940	,000	,002	,013
	N	72	72	72	69	66	72	72	69	72	63	72	67	56	72	71	71	72	72	72
Meses de Retraso inicial	Correlación de Pearson	,218	-,022	,214	1	,254*	,003	,159	,014	,086	-,033	,159	,340**	-,050	,161	,041	-,044	,245*	-,019	-,166
	Sig. (bilateral)	,068	,856	,077		,037	,978	,186	,911	,476	,794	,186	,005	,718	,181	,735	,717	,040	,877	,166
	N	71	71	69	71	68	71	71	69	71	64	71	67	55	71	70	70	71	71	71
Retraso final consecuencia de las prorrogas concedidas	Correlación de Pearson	,598**	,356**	,919**	,254*	1	-,112	,436**	,359**	,421**	-,222	,436**	,729**	,019	-,082	-,036	,041	,556**	,378**	-,431**
	Sig. (bilateral)	,000	,003	,000	,037		,361	,000	,003	,000	,082	,000	,000	,891	,505	,770	,741	,000	,001	,000
	N	69	69	66	68	69	69	69	67	69	62	69	65	52	69	68	68	69	69	69
N actividades	Correlación de Pearson	-,064	-,078	-,083	,003	-,112	1	,004	-,146	-,365**	,111	,004	,137	-,282*	-,229*	-,327**	-,388**	-,013	-,098	,564**
	Sig. (bilateral)	,537	,452	,486	,978	,361		,967	,170	,000	,334	,967	,259	,032	,030	,001	,000	,899	,344	,000
	N	95	95	72	71	69	95	95	90	93	78	95	70	58	90	93	93	95	95	95
pais	Correlación de Pearson	,349**	,270**	,429**	,159	,436**	,004	1	,342**	,310**	-,547**	1,000**	,439**	-,042	,251*	-,262*	-,125	,317**	,297**	,176
	Sig. (bilateral)	,001	,008	,000	,186	,000	,967		,001	,002	,000	,000	,000	,756	,017	,011	,231	,002	,003	,088
	N	95	95	72	71	69	95	95	90	93	78	95	70	58	90	93	93	95	95	95
Periodo de ejecución en meses previsto en el informe de formulación del proyecto	Correlación de Pearson	,487**	,307**	,589**	,014	,359**	-,146	,342**	1	,172	-,115	,342**	,255*	,084	,110	-,018	,010	,480**	,378**	-,169
	Sig. (bilateral)	,000	,003	,000	,911	,003	,170	,001		,105	,325	,001	,036	,546	,315	,868	,929	,000	,000	,111
	N	90	90	69	69	67	90	90	90	90	75	90	68	54	85	88	88	90	90	90
Cociente entre lo presupuestado como 796 y el presupuesto total	Correlación de Pearson	,393**	,279**	,312**	,086	,421**	-,365**	,310**	,172	1	-,200	,310**	,188	,257	,287**	,295**	-,036	,309**	,274**	-,307**
	Sig. (bilateral)	,000	,007	,008	,476	,000	,000	,002	,105		,081	,002	,119	,054	,007	,005	,734	,003	,008	,003
	N	93	93	72	71	69	93	93	90	93	77	93	70	57	88	91	91	93	93	93
Distancia del lugar del proyecto a la OTC relativizada por la extensión del país	Correlación de Pearson	-,072	-,069	-,168	-,033	-,222	,111	-,547**	-,115	-,200	1	-,547**	-,199	-,056	-,454**	,308**	,300**	-,042	-,087	-,045
	Sig. (bilateral)	,534	,546	,188	,794	,082	,334	,000	,325	,081		,000	,122	,692	,000	,007	,009	,715	,447	,693
	N	78	78	63	64	62	78	78	75	77	78	78	62	53	74	76	76	78	78	78
Numero de noticias politicas relevantes	Correlación de Pearson	,349**	,270**	,429**	,159	,436**	,004	1,000**	,342**	,310**	-,547**	1	,439**	-,042	,251*	-,262*	-,125	,317**	,297**	,176
	Sig. (bilateral)	,001	,008	,000	,186	,000	,967	,000	,001	,002	,000		,000	,756	,017	,011	,231	,002	,003	,088
	N	95	95	72	71	69	95	95	90	93	78	95	70	58	90	93	93	95	95	95
Numero de prorrogas concedidas	Correlación de Pearson	,342**	,228	,681**	,340**	,729**	,137	,439**	,255*	,188	-,199	,439**	1	-,114	-,116	-,211	-,147	,355**	,160	-,058
	Sig. (bilateral)	,004	,058	,000	,005	,000	,259	,000	,036	,119	,122	,000		,427	,341	,082	,227	,003	,185	,631
	N	70	70	67	67	65	70	70	68	70	62	70	70	51	70	69	69	70	70	70
Numero de informes de auditoria para el proyecto	Correlación de Pearson	-,044	.[a]	,044	-,050	,019	-,282*	-,042	,084	,257	-,056	-,042	-,114	1	-,184	,282*	,339**	-,016	.[a]	-,445**
	Sig. (bilateral)	,743	,000	,750	,718	,891	,032	,756	,546	,054	,692	,756	,427		,166	,032	,009	,908	,000	,000
	N	58	58	56	55	52	58	58	54	57	53	58	51	58	58	58	58	58	58	58
El sector esta en el plan director	Correlación de Pearson	,125	-,011	-,092	,161	-,082	-,229*	,251*	,110	,287**	-,454**	,251*	-,116	-,184	1	-,076	-,039	,154	,061	,005
	Sig. (bilateral)	,241	,921	,441	,181	,505	,030	,017	,315	,007	,000	,017	,341	,166		,482	,720	,148	,565	,962
	N	90	90	72	71	69	90	90	85	88	74	90	70	58	90	89	89	90	90	90
Proyectos encadenados antes del actual	Correlación de Pearson	-,042	-,102	-,015	,041	-,036	-,327**	-,262*	-,018	,295**	,308**	-,262*	-,211	,282*	-,076	1	,064	,007	-,114	-,411**
	Sig. (bilateral)	,690	,329	,898	,735	,770	,001	,011	,868	,005	,007	,011	,082	,032	,482		,544	,949	,276	,000
	N	93	93	71	70	68	93	93	88	91	76	93	69	58	89	93	93	93	93	93
Proyectos encadenados despues del actual	Correlación de Pearson	-,042	-,047	,009	-,044	,041	-,388**	-,125	,010	-,036	,300**	-,125	-,147	,339**	-,039	,064	1	-,094	-,004	-,459**
	Sig. (bilateral)	,688	,655	,940	,717	,741	,000	,231	,929	,734	,009	,231	,227	,009	,720	,544		,373	,970	,000
	N	93	93	71	70	68	93	93	88	91	76	93	69	58	89	93	93	93	93	93
ln subvencion AECID	Correlación de Pearson	,881**	,401**	,614**	,245*	,556**	-,013	,317**	,480**	,309**	-,042	,317**	,355**	-,016	,154	,007	-,094	1	,433**	-,168
	Sig. (bilateral)	,000	,000	,000	,040	,000	,899	,002	,000	,003	,715	,002	,003	,908	,148	,949	,373		,000	,103
	N	95	95	72	71	69	95	95	90	93	78	95	70	58	90	93	93	95	95	95
AT_Dummy	Correlación de Pearson	,574**	,908**	,357**	-,019	,378**	-,098	,297**	,378**	,274**	-,087	,297**	,160	.[a]	,061	-,114	-,004	,433**	1	-,262*
	Sig. (bilateral)	,000	,000	,002	,877	,001	,344	,003	,000	,008	,447	,003	,185	,000	,565	,276	,970	,000		,010
	N	95	95	72	71	69	95	95	90	93	78	95	70	58	90	93	93	95	96	95
makeorbuy	Correlación de Pearson	-,249*	-,238*	-,291*	-,166	-,431**	,564**	,176	-,169	-,307**	-,045	,176	-,058	-,445**	,005	-,411**	-,459**	-,168	-,262*	1
	Sig. (bilateral)	,015	,020	,013	,166	,000	,000	,088	,111	,003	,693	,088	,631	,000	,962	,000	,000	,103	,010	
	N	95	95	72	71	69	95	95	90	93	78	95	70	58	90	93	93	95	95	95

**. La correlación es significativa al nivel 0,01 (bilateral).

*. La correlación es significante al nivel 0,05 (bilateral).

a. No se puede calcular porque al menos una variable es constante.

Own source

APPENDIX B Table 2: Government subsidies Spain developed in Morocco during the period 2002 - 2006

Government subsidies		Subsidy Amount*	AT?*	Real Length**	Initial delay**	Final delay**	Physical A.Spec.	Activities
Project 1	Organization 1	1.020.000,00	x	37	3	19	0,784	11
Project 2	Organization 1	900.000,00	x	40	25	22	0,722	9
Project 3	Organization 2	636.067,00	x	32	11	25	0,679	12
Project 4	Organization 3	1.376.000,00	126.000	61	0	37	0,712	15
Project 5	Organization 4	481.900,00	x	57	0	45	1	4
Project 6	**Organization 4**	**1.383.900,71**	**70.028**	**74**	**5**	**42**	**0,805**	**17**
Project 7	Organization 4	618.862,00	x	90	0	63	0,665	6
Project 8	Organization 4	620.000,00	x	63	0	39	0,403	6
Project 9	Organization 5	900.000,00	x	57	4	26	0,238	3
Project 10	Organization 6	218.000,00	x	x	x	x	0,014	5
Project 11	Organization 7	1.100.000,00	x	24	x	x	0,545	3
Project 12	Organization 8	410.000,00	x	x	0	24	0,288	5
Project 13	Organization 9	195.000,00	45.000	18	x	x	0	7
Project 14	Organization 10	1.672.737,00	x	x	x	x	x	3
Project 15	Organization 10	2.215.166,00	15.166	x	0	25	0,75	7
Project 16	**Organization 10**	**225.000,00**	**x**	**36**	**0**	**12**	**1**	**3**
Project 17	**Organization 11**	**706.297,00**	**84.000**	**33**	**0**	**9**	**0,773**	**9**
Project 18	Organization 12	120.000,00	x	24	4	10	0,25	8
Project 19	Organization 13	844.000,00	84.400	42	0	6	0,156	x
Project 20	Organization 4	1.134.636,00	90.350	x	x	24	1	x
	TOTAL	16.777.565,71	514.944					
	AVERAGE	838.878,29		45,87	3,47	26,75	0,57	7,39
	ST. DEVIATION	552.333,10		20,93	3,21	15,56	0,33	4,16

Own source

* quantities in euros €
** quantities in months

APPENDIX C Table 3: International Aid Delivery Projects Spain developed in Morocco through subsidies to NGOs during the period 2002 - 2006

Subsidies to NGOs		Subsidy Amount*	AT?*	Real Length**	Initia delay**	Final delay**	Physical A.Spec.	Activities
Project 1	NGO 1	295.583,00	x	26	0	8	0,166	22
Project 2	NGO 2	500.000,00	x	28	2	6	0,367	21
Project 3	**NGO 3**	**171.230,00**	**x**	**18**	**0**	**0**	**0,68**	**7**
Project 4	NGO 3	174.466,41	x	18	0	0	0,583	5
Project 5	NGO 4	119.996,48	x	21	1	1	0,472	7
Project 6	**NGO 1**	**202.897,08**	**x**	**27**	**0**	**8**	**0,121**	**31**
Project 7	NGO 5	120.104,76	x	24	-2	0	0,389	19
Project 8	NGO 3	239.429,53	x	18	-2	-3	0,71	11
Project 9	NGO 6	261.019,73	x	34	8	2	0,175	14
Project 10	NGO 4	129.205,90	x	19	0	1	0,101	6
Project 11	NGO 7	258.860,00	x	24	3	10	0,057	12
Project 12	NGO 8	65.685,00	x	14	0	2	0,589	8
Project 13	NGO 9	165.058,00	x	20	0	0	0,118	8
Project 14	NGO 10	400.000,00	x	27	0	3	0	30
Project 15	**NGO 6**	**517.573,00**	**x**	**30**	**0**	**6**	**0,377**	**12**
Project 16	NGO 11	375.504,77	x	24	0	0	0,022	21
Project 17	NGO 12	427.597,20	x	24	3	x	0,492	10
Project 18	NGO 13	200.000,00	x	15	0	3	0,144	12
Project 19	NGO 3	220.000,00	x	15	0	0	0,657	16
Project 20	NGO 1	357.206,00	x	30	0	3	0,312	22
Project 21	NGO 14	150.000,00	x	16	0	4	0,231	13
Project 22	NGO 15	307.320,00	x	24	6	x	0,163	12
Project 23	NGO 7	177.957,00	x	22	0	4	0,053	21
Project 24	NGO 16	194.670,00	x	33	0	9	0,318	21
Project 25	NGO 17	656.550,00	x	36	0	12	0,306	11
	TOTAL	6.687.913,86						
	AVERAGE	267.516,55		23,48	0,76	3,43	0,30	14,88
	ST. DEVIATION	141.985,95		6,05	2,16	3,80	0,22	7,06

Own source

* quantities in euros €
** quantities in months

APPENDIX D Table 4: Government subsidies Spain developed in Ecuador during the period 2002 - 2006

Government subsidies		Subsidy Amount*	AT?*	Real Length**	Initia delay**	Final delay**	Physical A.Spec.	Activities
Project 1	Organization 1	279.390,95	x	12	3	0	0	34
Project 2	Organization 2	173.362,00	x	18	0	0	0,193	3
Project 3	Organization 3	156.000,00	x	x	x	x	0,2	3
Project 4	Organization 4	48.080,00	x	18	0	0	0,278	3
Project 5	Organization 3	210.000,00	x	x	x	x	0	4
Project 6	Organization 4	40.413,00	x	12	2	6	0,334	4
Project 7	Organization 5	200.000,00	x	x	x	x	0	4
Project 8	Organization 5	195.000,00	x	x	x	x	0	4
Project 9	Organization 6	270.000,00	x	x	x	x	0,748	12
Project 10	Organization 6	600.000,00	x	x	x	x	0,2	12
Project 11	Organization 6	210.000,00	x	x	x	x	0,2	12
Project 12	Organization 6	180.000,00	x	x	x	x	0,2	12
Project 13	Organization 6	180.000,00	x	x	x	x	0,1	12
Project 14	Organization 6	189.000,00	x	x	x	x	0,1	12
Project 15	Organization 6	200.000,00	x	x	x	x	0,7	12
Project 16	Organization 6	190.000,00	x	x	x	x	0,079	12
Project 17	Organizataion 7	200.000,00	x	x	x	x	0	4
Project 18	Organizataion 7	195.000,00	x	x	x	x	0	4
Project 19	Organization 8	318.762,00	x	18	0	0	0,415	0
Project 20	Organization 8	184.372,00	x	13	0	0	0,577	0
Project 21	Organization 8	220.158,00	x	9	0	0	0,781	0
Project 22	Organization 8	356.000,00	x	18	0	0	0,45	0
Project 23	Organization 9	310.373,00	x	18	0	0	0,309	0
Project 24	Organization 9	272.000,00	x	x	x	x	0,3	0
Project 25	Organization 9	265.500,00	x	x	x	x	0,311	0
Project 26	Organization 9	50.000,00	x	x	x	x	0,31	12
Project 27	Organization 10	279.616,00	x	18	0	0	0,733	7
Project 28	Organization 10	154.000,00	x	18	0	0	0,734	0
Project 29	Organization 11	262.840,00	x	18	0	0	0,645	0
Project 30	Organization 11	354.597,00	x	18	1	0	0	0
Project 31	Organization 11	568.000,00	x	16	0	-2	0,6	0
	TOTAL	7.312.463,95						
	AVERAGE	235.885,93		16,00	0,43	0,29	0,31	5,87
	ST. DEVIATION	118.963,35		3,00	0,90	1,67	0,26	7,08

Own source

* quantities in euros €
** quantities in months

APPENDIX E Table 5: International Aid Delivery Projects Spain developed in Ecuador through subsidies to NGOs during the period 2002 - 2006

Subsidies to NGOs		Subsidy Amount*	AT?*	Real Length**	Initia delay**	Final delay**	Physical A.Spec.	Activities
Project 1	NGO 1	500.000,00	x	30	0	5	0,201	14
Project 2	NGO 1	300.000,00	x	24	0	0	0,062	5
Project 3	NGO 2	90.930,30	x	15	0	3	0,006	45
Project 4	NGO 3	601.000,00	x	33	0	9	0,174	20
Project 5	Ngo 4	316.334,96	x	28	0	10	0	32
Project 6	NGO 5	268.552,73	x	12	0	0	0,291	23
Project 7	NGO 10	250.000,00	x	14	0	2	0,01	22
Project 8	NGO 5	240.000,00	x	12	0	0	0,111	24
Project 9	NGO 4	266.810,00	x	23	0	3	0,078	14
Project 10	NGO 6	157.940,92	x	12	0	0	0,027	23
Project 11	NGO 7	606.509,00	x	13	0	1	0,033	45
Project 12	NGO 8	605.000,00	x	26	0	2	0,598	9
Project 13	NGO 1	391.962,62	x	34	12	x	0,032	22
Project 14	NGO 2	149.515,63	x	12	0	0	0	13
Project 15	NGO 9	125.000,00	x	21	0	9	0,598	15
Project 16	NGO 3	300.000,00	x	20	x	x	0,013	17
Project 17	NGO 8	235.000,00	x	x	x	x	x	0
Project 18	NGO 1	100.000,00	x	22	0	-2	0	10
Project 19	NGO 9	684.761,37	x	35	0	5	0	22
	TOTAL	6.189.317,53						
	AVERAGE	325.753,55		21,44	0,71	2,94	0,12	19,74
	ST. DEVIATION	182.282,94		7,99	2,82	3,58	0,19	11,33

Own source

* quantities in euros €
** quantities in months

APPENDIX F Binary Logistic Regression

Resumen del procesamiento de los casos

Casos no ponderados[a]		N	Porcentaje
Casos seleccionados	Incluidos en el análisis	62	64,6
	Casos perdidos	34	35,4
	Total	96	100,0
Casos no seleccionados		0	,0
Total		96	100,0

a. Si está activada la ponderación, consulte la tabla de clasificación para ver el número total de casos.

Codificación de la variable dependiente

Valor original	Valor interno
make	0
buy	1

Bloque 1: Método = Introducir

Pruebas omnibus sobre los coeficientes del modelo

		Chi-cuadrado	gl	Sig.
Paso 1	Paso	51,504	7	,000
	Bloque	51,504	7	,000
	Modelo	51,504	7	,000

Resumen de los modelos

Paso	-2 log de la verosimilitud	R cuadrado de Cox y Snell	R cuadrado de Nagelkerke
1	29,144[a]	,564	,775

a. La estimación ha finalizado en el número de iteración 20 porque se han alcanzado las iteraciones máximas. No se puede encontrar una solución definitiva.

Tabla de clasificación[a]

Observado			Pronosticado		
			makeorbuy		Porcentaje correcto
			make	buy	
Paso 1	makeorbuy	make	20	2	90,9
		buy	1	39	97,5
	Porcentaje global				95,2

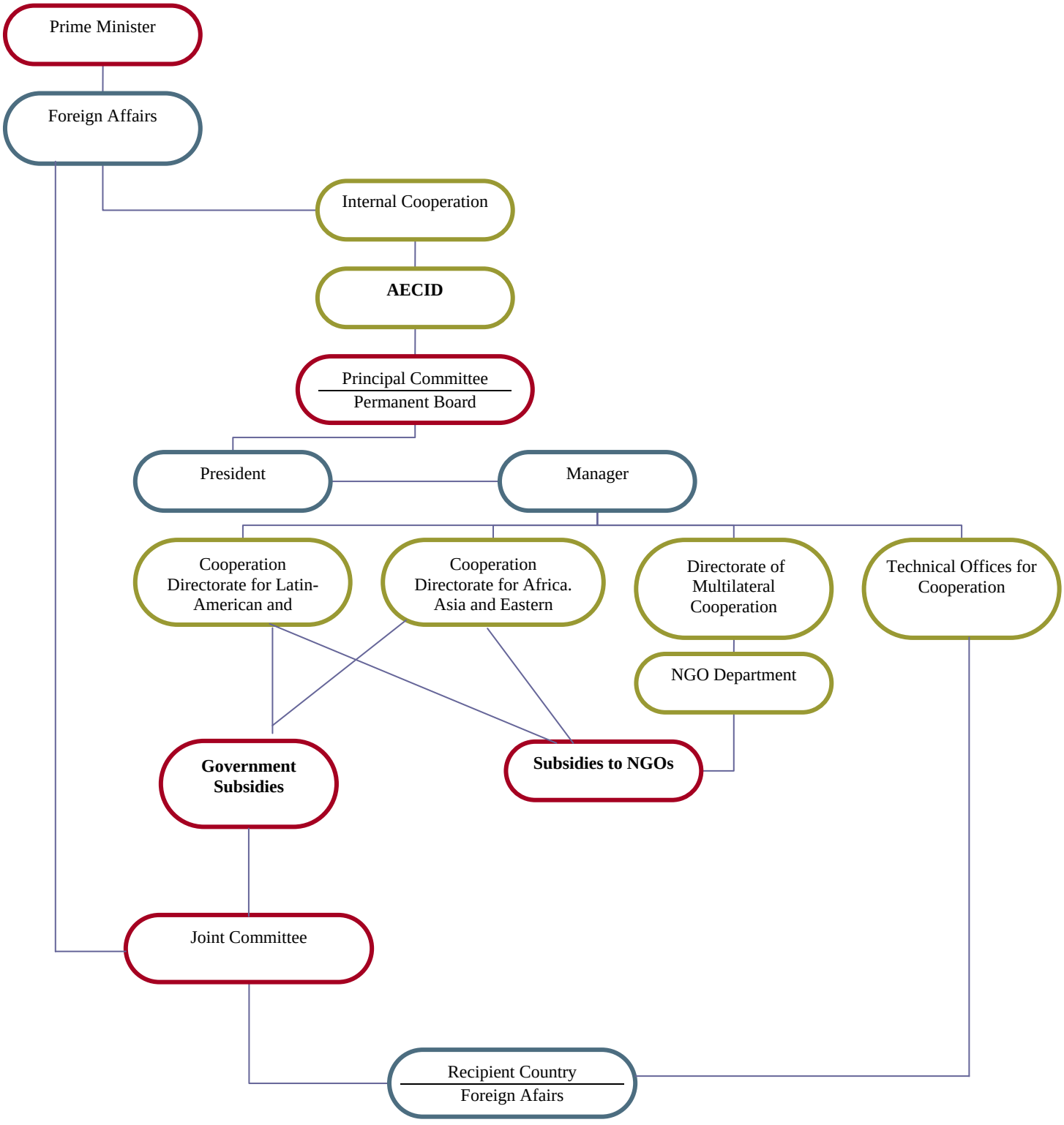
a. El valor de corte es ,500

Variables en la ecuación

		B	E.T.	Wald	gl	Sig.	Exp(B)
Paso 1[a]	distancia_OTC	,098	,442	,049	1	,825	1,103
	Ejecucionreal	-,078	,042	3,441	1	,064	,925
	Retrasoinicial	-,253	,159	2,529	1	,112	,776
	Nactividades	,182	,085	4,659	1	,031	1,200
	especificidad_fisca	-4,770	2,280	4,376	1	,036	,008
	AT_Dummy	-20,644	21663,080	,000	1	,999	,000
	pais	3,318	1,436	5,340	1	,021	27,607
	Constante	1,451	2,004	,524	1	,469	4,269

a. Variable(s) introducida(s) en el paso 1: distancia_OTC, Ejecucionreal, Retrasoinicial, Nactividades, especificidad_fisca, AT_Dummy, pais.

APPENDIX G Figure 1: Organization Chart of Foreign Aid Spending in Spain



Own source