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"INVESTING IN THE ARTS AND CULTURE: AN EMPIRICAL ANALYSIS OF ITALIAN ART BONUS"

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INTRODUCTION

The Arts and Culture field has always been considered related to business activities. This is mainly due to the Artistic and Cultural patronage, the practice through which patrons used to commission specific works of art to artists, that reached its greatest height during the Renaissance.

In the past, patronage was a practice supported by private citizens: either rich laymen and clerics landowners or- in more industrial ages- collectors. In more recent years, the responsibility has passed from private citizens to central governments. This was made necessary by the need to achieve national unity by including the Arts and Culture support into social welfare programs.

Many researches have focused their attention on the different ways set by State authorities to face this issue. The results can be summarized by the four-roles Chartrand and McCaughey definition (1989). The first one is the pure Patron State, in which not-for-profit organizations act as intermediates between the government and the fund-searching cultural organizations. The second one - that includes Italy - is the Architect model, typical of continental Europe. This model does not benefit form a third-party intervention but emphasises the controlling role of the Ministry or Department of Culture central institution.

The third model is the Engineer State, that is typical of an extreme control by political authorities typical of totalitarian regimes. Lastly, there is the most detached approach followed by States like the United States of America. This model indirectly finances cultural and artistic activities by aiding and incentivising individuals, foundations and corporations.

However, the critical socio-economic situation led governments to revise their spending priorities, leaving the cultural sector devoid of the necessary support and in need of alternative solutions. The most appropriate solution has been found in the US' best practices that were used to give a fiscal incentive to privates, including enterprises, who would be willing to finance some Art and Culture cause. The economic benefits allow for a concrete reduction of the donation's net price and produce an unquestionable incentive effect, thus replicating the model always seemed a good idea.

The fact that patronage is embodied in the Italian cultural DNA is discernible in the several and sometimes overlapping norms that were added over the years. However, the introduction in 2015 of the Art Bonus placed Italy in the latest patronage framework.

Generally speaking, the Art Bonus works slightly differently from the US model. By targeting SMEs instead of large companies, it can incentivize the right supporters and, potentially, get the best results.

Given the Country's specific cultural and artistic peculiarities, from a business perspective Italy has always been an interesting investing scenario. Moreover, the increasingly important role of enterprises for Arts and Culture subvention make it reasonable to deepen the concrete application of the Art Bonus Italian initiative.

All the existing models about this subject are almost exclusively based on American cases studies and they focus their attention on the possibility that specific company features positively or negatively affect the willingness to donate. Moreover, these models do not seem to provide a meaningful explanation for further argumentations.

For this reason, the purpose of this research is to deepen the investment drivers issue with the goal of finding a predicting relationship with the supposed investing profiles characterising the Art Bonus company-donors sample. The results are expected to bring novelties into the Arts and Culture philanthropy framework, especially considering the more in-depth focus and the new Italian perspective applied to the empirical analysis.

1. CHAPTER ONE

THE CULTURE AND ITS FINANCING SUBJECTS

1.1 Introduction

The origins of the cultural patronage can be found before the modern era, starting in the Middle Age and flourishing during the Renaissance. Its cradle was the continental Europe: this conferred to art patronage the reputation to be sacred and courtly thanks to the political organization of that historical time. The Italian Signoria -especially with the Medici family- as well as the Pope power, the French and the English monarchies and the German princes played a relevant role in the society growth and cultural advances. The works of art were commissioned by wealthy landowners to notable artists, that were bound by a work contract that limited every artistic freedom.

The subsequent industrialization gave to the artistic industry a more open market orientation making the works of art genuine masterpieces, whose possession was a matter of collectors' personal prestige.

However, only in more recent years the governments took charge of culture, including it in welfare public policies. This is the case of French and Italian Ministries of Culture (Wangermèè, cited in Zimmer and Toepler, 1999; Shuster, 1985), the National Endowment of Arts in US (Zimmer and Toepler, 1999; Cloterfeld, 1985) as well as the Minister for special responsibilities for culture in Great Britain (Ridley, 1987, cited in Zimmer and Toepler, 1999) and a similar institution in Netherland (Dutch Ministry, 1994, cited in Zimmer and Toepler, 1999). All of them were established during the 60s and 70s.

The reason of their dedication is related to the importance that culture has in defining the national identity, by influencing several aspects of people' lives, from leisure to professional activities. As consequence, every State is expected to set its own degree of participation on the base of their cultural heritage, their policy priorities and expertise (Mulcahy, 1998).

The aim of this first chapter is to lay the ground for a better comprehension of the actual scenario concerning culture support by the State, what is changing and the possible future directions.

The first point to be analysed concerns the word "culture": a brief review of its origins and previous studies will make it possible to identify its current meaning and its main features. The activities falling under *culture* definition should be clear to set a standard background for subsequent analysis. This will be useful to introduce the central topic of the research: the subjects' profiles financing culture. Generally, the sources are mainly three:

- public, if money comes from government or public institutions directly through subsidies and grants, or indirectly, through tax exemption;
- private, if the provider is the market;
- non-profit organizations.

However, it is important to highlight that both the culture purposes and the governance mode (UNESCO, 2009) characterize the State's possible approaches, determining different level of presence and interaction with the other two players mentioned above.

Thereafter, the matching of these theoretical roles with the actual economic, social and political environment makes this static review dynamic while the data from recognized institutions such as Eurostat and OECD give a more realistic and concrete picture of this subject.

1.2 The faces of culture

Before starting to review the theories about how central government can participate to the culture subvention, it is necessary to understand what the term "culture" means and to which activities it will be referred to.

Despite culture is a recurring word with a long history (Kroeber and Kluckhohon, 1952) and with many applications to different social science disciplines, Mantovani (2000, in Baldwin, J. R. et al, 2006) underlines that Western societies still do not have a clear idea about what culture is. However, it is an issue that does not concern only these countries, selected because of their greater influence on cultural dimension. On the opposite, maintaining and enhancing the specificities and the distinctive qualities of each culture is a challenge that must be met globally (UNESCO, 2009).

The age of discussions about culture led to gather a lot of different and somehow contrasting opinions and approaches, that were summarized by Kroeber and Kluckhohon (1952) in what can be considered a bible for cultural studies. The semantic dissertation identifies the origin of the word culture in the Latin verb *colere* with the primary meaning of cultivating the ground.

However, the interesting part of Kroeber and Kluckhohon analysis (1952) is the culture definition split into 6 simplified groups:

1. Descriptive, with emphasis on enumeration of contents
2. Historical, with emphasis on social heritage or traditions
3. Normative, with emphasis on rule or way, ideals or values plus behaviour
4. Psychological, with emphasis on adjustment, culture as a problem-solving device, learning and habits
5. Structural, with emphasis on patterning or organization of culture
6. Genetic, with emphasis on culture as a product or artefact, ideas, symbols

All of them are essential to give a complete picture about the topic, so that Kroeber and Kluckhohon tried to offer a more comprehensive definition with references to all the points listed above:

"*Culture consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially their attached values; culture systems may, on the one hand, be considered as* ***products of action****, on the other as conditioning elements of further action*." (Kroeber and Kluckhohon, 1952, p.181)

However, for our purposes, this definition is too wide and it is necessary to focus on just few of its parts, especially the product through which culture is expressed. For this reason, the Boas' work (1930, in Kroeber and Kluckhohon, 1952) can help to narrow the scope of the investigation.

"*Culture embraces all the manifestations of social habits of a community, the reactions of the individual as affected by the habits of the group in which he lives, and the products of human activities as determined these habits*." (Boas, 1930, in Kroeber and Kluckhohon, 1952, p.43)

In more recent times, UNESCO (2009) reviewed the academic studies and proposed a similar inclusive definition that takes into consideration all the society facets: lifestyle, values, traditions and beliefs. In addition, following the Boas' front, UNESCO goes further by proposing to concentrate on the associated behaviours and practices when it is not possible to measure them directly.

The importance of this definition is all about measurability. A standard and reliable data-set that can be codified into a common cultural framework is the fundamental base to reach one of the UNESCO goals: producing internationally comparable cultural statistics that can be translated into viable cultural policies.

The version proposed in 2009 is the evolution of a previous classification into Cultural Domains, that are clusters in which economic (such as the production of goods and services) and social activities (such as participation to cultural activities) are listed.

The are several criteria used to list these activities within the right cluster but *Expert report on sources'* (2008, in ESSnet-CULTURE Final Report, 2012) tried to summarize them into creativity, intellectual property, method of production and use value. The most effective seems to be the method of production, while the others present some drawbacks. Creativity is too wide and needs further specifications, intellectual property is useful to identify just a little part of cultural activities and it risks to include totally off-topic activities (e.g. pharmaceutical products), while use value can be too wide since it contains not only the symbolic value associated to culture, but also the functional one.

Instead, culture cycle is considered the most appropriate method. It is focused on the economical features of creation, production, and dissemination phases. This makes the best solution since the design of the best public policies and interventions for culture production is strictly dependent to the detailed knowledge of the process measured (ESSnet-CULTURE Final Report, 2012).

Among the slightly different cultural classifications, the one chosen as reference for this work is provided by UNESCO because of its international nature. It is based on the culture cycle criterion but it is extended to activities belonging to a more recreational and leisure sphere in addition to purely cultural activities. UNESCO (2009) catalogues them into 3 mutually exclusive domains:

- Cultural domains, that include goods and services that are involved in all the different phases of the culture cycle model;
- Related domains, a more general category encompassing social and recreational activities;
- Transversal domains, applied to both cultural and related domains.

As far as this work is concerned, the most interesting category is given by cultural domains, especially some of them, thanks to their high degree of concreteness and their usefulness for

creating a formal national identity. Nevertheless, a brief explanation of the total framework *(Figure 1.1)* can be useful to get a full picture.

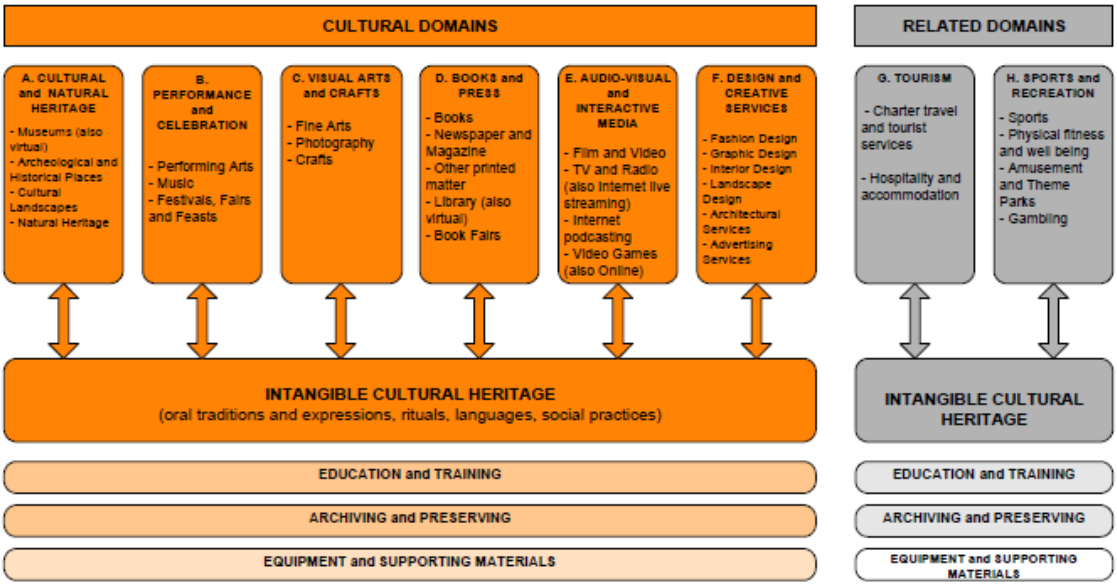


Figure 1.1: The Domains (Source: UNESCO, 2009)

1. **Cultural and Natural Heritage**: it focusses on places with symbolic, historic, artistic, scientific and social value, both works of nature and human ones;
2. **Performance and Celebration**: it includes all kind of live cultural events;
3. **Visual Arts and Crafts**: this encompasses not only paintings, drawings, sculpture, crafts and pictures, but also the commercial places where they are exhibited;
4. **Books and Press**: it is made of publishing, in all the possible forms;
5. **Audio-visual and Interactive Media**: for classifying classical activities as radio and television, but also the ones emerged with technological advances as the online channels;
6. **Design and Creative Services**: it covers activities, goods and services resulting from the creative, artistic and aesthetic design of objects, buildings and landscape. Advertising, a quasi-new entry of cultural activities, belongs to this domain.

In addition, there are related domains that are supportive groups of activities whose main component is not cultural even if they may be affected by cultural features. It is the case of: **tourism** and **sports and recreation**.

Finally, there are transversal domains, independent but applicable across other cultural domains:

1. **Intangible cultural heritage**: it is the only one to be totally cultural, and it includes all the practices, representations, expressions, knowledge, skills transmitted generation by generation because it is part of individuals' cultural heritage;
2. **Education and training**: related to the transmission of cultural values or cultural skills;
3. **Archiving and preservation**: referring to the preservation and management of cultural outputs;
4. **Equipment and supporting materials**: it considers all the materials useful to facilitate each phase of the culture cycle.

1.3 The public models for supporting culture

When the States began to fund cultural initiatives to drive and consolidate the national identity, scholars debated about which should be the ideal assistance role of the government and which should be the best role classification. However, it is interesting to notice that irrespective of the role adopted, researches have shown that States' performances are very similar (Colbert, 2012). The most known and widely used model is the one proposed by Chartrand and McCaughey (1989), that identifies four main roles: Architect, Patron, Facilitator and Engineer. Each one will be presented following the same scheme: origin, main attributes, advantages, disadvantages and an associated country (or group of countries) as clarifying example. However, it is important to keep in mind that the model needs to be integrated with other points of view as well as it is important to find out a common trend for identifying the most real and updated scenario.

1.3.1 The Architect

The Architect role is typically associated to the continental Europe countries and it is characterized by an active involvement of the State acting by mean of a central institution: the Ministry or Department of Culture.

The distinctive element is the "central governmental agency headed by a Minister" (Shuster, 1985, p. 26), that makes the model the one that integrates more the cultural field into the social welfare policies because of the high involvement of the State.

The strong link with the central authority highlights the direct budget allocation and the importance of the bureaucrats as main actors, considering that they have the complete decision power over the artists and the art organizations to support. However, the artists and the art organizations maintain their independence form the government.

This top-down approach, where choices are made at the top and are imposed to the bottom (Colbert, 2012), is aimed at reaching some subsidization objectives set at the central level. This is the reason why the financing choice falls into artistic and cultural endeavours that meet community standards and into artists that hopefully are members of official unions, to which the government already grants a form of income security. In other words, the artists become a sort of national ambassadors relived form the appeal of the common public and to what is known as the affluence gap (Bladen, V. cited in Chartrand and McCaughey, 1989).

As identified by Chartrand and McCaughey, in the long term, the centralized decision makes the ongoing support of this specific culture lacking of any incentive to the creative genius of the artists, that irremediably fall into the known stagnation of creativity. This means that the inertia derived by being fixated to a community standard can be overcame just with a revolution. This is the reason why the model is called revolutionary by these authors.

Despite the picture described above, the architect model can be considered the most complex since it can assume different forms on the base of the degree of centralization and the hegemony of the national culture (Mucahy, 1998).

In fact, even if most researchers (Cummings and McCaughey, 1989; Mulcahy, 1998) agree on the fact that French political management is the example that suites the most the architect role, other States have other typical features recalling the Architect figure.

Considering all of them allows to get a complete scenario.

The origin of the Architect attributes is usually dated in the late 19th century, when modern States substituted the absolute monarchies that governed Western Europe for the two previous centuries. In that period, the art started to be acknowledged as a formal social tool, integrated in the government strategy and aimed to preserve and strengthen the national culture. In this picture, France is perceived as the best case of top down approach of financing, because of its enduring willingness to prove the grandeur of the Country (Zimmer and Toepler, 1999).

Nevertheless, other alternatives converge in the Architect model: two examples are Germany and Norway.

The traditional German princely model of patronage was then constrained by the negative experience of the totalitarian culture abuse for propaganda purposes during the Nazi regime; causing the temporal shift from the Architect toward the Engineer role of the State. This historical background laid the foundations for the actual base principles: the constitutionally declared limited role of national government and the freedom of the arts.

In fact, Germany lacks a central art agency in charge of cultural policymaking and the responsibilities for culture is spread throughout the territory and considered a municipal prerogative of the Länder (Mulcahy, 1998; Zimmer and Toepler, 1996), justifying the extension to multiple Departments of Culture stated at the beginning of the paragraph.

Last, Norway differs from France and Germany since it represents the social-democratic side of the social welfare policies. This Scandinavian Country approached to the arts and culture very recently, thus the aim of that policies is fostering the "democratization of culture and cultural goods" (Berg, M. cited in Mulcahy, 1998, p.251) to encourage the cultural development and national self-identity.

1.3.2 The Patron

The patron model, also known as sponsor model (Colbert, 2012), is the label given to the State organization that relies on a not-for-profit organization as mean between the government and the various cultural organizations.

This association is the Arm's Length Art Council, defined as "a quasi-autonomous agency insulated as much as possible from the political influence of the central government through the arm's length principle" (Schuster, 1985, p.26).

The arm's length principle is the well-known concept, typically applied to the contract law or to the international taxation disciplines, that ensures equality between the parties in case of potential conflict of interests. For the same reason, it is applied to the art and culture financing: to keep them separated from political and bureaucratic affairs.

This objective is pursued through the structure of the councils, that receives a certain number of funds by government and allocates it on the base of comments made by the joint effort of the committee and the advisors. The former is a group of trustees appointed by the government, that should ensure the financing of culture in line with the actual macro political forces while keeping the independence from the day-by-day political issues. The advisors on the other hand are professional artists whose main duty is to advice the committee to grant the support to cultural endeavours that are worth in term of standards of professional artistic excellence.

However, the expert counsels are a double-edged sword because they represent the main strength and weakness of the model. The support of excellence standards creams off the wide array of cultural pieces, picking up just the high-quality ones that represent the top expression of the artistic genius. This however limits the potential public ability to enjoy it. In other words,

arts risk to become unintelligible and not easily accessible to the general audience that considers it as an elite good.

The consequent feature is that, since the creativity process supported is strictly linked to the current artistic trend, once the movement changes even the financing flows moves toward new artists and pieces of art. For this reason, Chartrand defines the policy dynamic under the model "evolutionary".

The typical example of the patron state is given by Great Britain, that gained this status because it was the first to adopt a quasi-public art institution to foster the national culture after the World War II, as natural evolution of the traditional art financing practice typical of British aristocracy. The UK example was followed by other commonwealth countries, including Canada, New Zealand and Australia.

The Canadian case is particularly interesting because of its peculiarities. First, unlike the English model, the responsibilities are not concentrated in Ottawa, the capital, but spread at provincial level in order to give relevance to the pluralistic cultures (e.g. Quebec). In addition, thanks to its private origins, it was endowed by a significant amount of money that allow the institution to be independent from the government.

The freedom from State constraints is the element that gets Canada closer to the United States model. Indeed, after the constitution of NEA – National Endowment for the Arts, US culture financing structure could be classified into the Patron model. The NEA is an independent federal government agency created on the model of the British Council (Toepler and Zimmer, 1996), characterized by its executive profile and the political involvement that made the difference during the shift from the system based on private policymaking to one more centralized.

Nonetheless, many scholars (Chartrand, 1985; Colbert, 2012) still prefer to use it as reference for the Facilitator role; thus, for the sake of the discipline, this assumption will be maintained, and US will be presented in the following paragraph.

1.3.3 The Facilitator

The Facilitator is the role of a State that finances the cultural and artistic activities indirectly, through the aid mechanism made by the donations from individuals, foundations and corporations.

In line with the belief that arts patronage is a private responsibility and not a State duty, the subvention technique consists in a government financing intervention through forgone taxes, namely those revenues that the State gives up hoping to obtain a higher private involvement in charitable contributions (Zimmer and Toepler, 1999; Zimmer and Toepler, 1996).

As consequence, the Facilitator State leaves to individuals and corporations a key role, providing them with free choice of investment on the base of their tastes and preferences, usually driven by the appealing and marketability degree of the arts. On the other side, the government does not draw up any specific agenda for cultural polices and limits its intervention to a supporter and stimulator function, facilitating the investments thanks to its guarantor profile (Zimmer and Toepler, 1999).

For a long period, tax scholars debated about the positive aspects of this technique, arguing that the main benefit is given by the incentive effect. The State granting role should enhance people perceptions about the charitable giving quality and should make them more likely to donate.

However, the government low involvement is both the main strength and weakness of this model. On one hand, if the State lets people investing on the preferred works of art, citizens follow their wishes and this generates a wide variety of funding; on the other hand, the limited control over these investments raises several questions.

First, it could be challenging to evaluate the effective benefit that links donors and recipients, especially if those belongs to different communities, cultures or far-away geographical areas. Secondly, and even more importantly, it is difficult to monitor the costs incurred by the State that has to give up part of the incoming taxes to foster cultural spread (Chartrand, McCaughey, 1989). Lastly, since there are not national art policy objectives behind investment decisions nor artistic standards of excellence to meet, it is almost impossible for the State to target cultural activities that fill an important national or artistic progress role.

The State that better embodies the role of the Facilitator has been identified by the literature (Chartrand, McCaughey, 1989; Zimmer and Toepler, 1996; Colbert, 2012; Cloterfeld, 1985) in the United States structure before 1965, the inception of the National Endowment for the Arts (NEA). What made US different in the charitable contribution field before was the possibility given to their taxpayers to deduct the cultural investment: this is probably the most important tax policy for the viability of the non-profit sector. The rule, adopted for the first time in 1917 as benefit only for individual taxpayer and then extended to corporations (Clotfelter, 1985) is the purest example of liberal organization of welfare policies. This model is rooted on the Adam

Smith's traditional theory, stating that the free playing of individuals and enterprises serves best the general welfare. However, the awareness of the invisible hand possible failures led Americans to change their mind and to consider the State intervention. At the moment, the US system is characterized by the coexistence of NEA and private charity acts.

1.3.4 The Engineer

The last role identified by the literature (Chartrand and McCaughey, 1989) is called "Engineer". It is less diffused and recognized than the other three because it is typically linked to totalitarian regimes, a minority situation in the current world.

The Engineer State holds the control of all the activities related to the regime, including the artistic production financing that is used to educate the mass about the party line values. The cultural endeavours, as well as the artists, are selected by the country leaders to meet some of the highest political standards of excellence and this is the reason why Chartrand and McCaughey attributed to this model the label of "revisionary" (Chartrand and McCaughey, 1989). In other words, the art and culture projects are expected to be revised on the base of the political movement that supports them.

This is the most focused model of the four because of the high level of energies employed to attain the official political goals, but the limitations for the artists are heavy enough to lead them to channel their ambitions and artistic genius toward subversive and countercultural movement. The model does not benefit from a full identification because it is related to specific historical moments, characterized by lack of freedom and punishment for the deviations. Germany has been already mentioned for its brief experience as Engineer state during the Nazi regime, but Soviet Union is the most common example: a clear slow-down to the freedom of expression, harnessed into creative unions totally monitored to be as close as possible to the aesthetic rules of the Communist Party.

Meanwhile, scholars formulated a more modern hypothesis, including actual Western capitalism as the latest version of Engineer State. They assert that every culture expression profit driven – namely, meant to be sold - bridles the artistic creativity, allowing the direct comparison with Soviet Union ideological limitation.

	ARCHITECT	PATRON	FACILITATOR	ENGINEER (Capitalist Engineer)
Financing subject	Ministry or Department of Culture	Arm's Length Art Council	Private individuals, corporations and organizations	State as owner of the means of production
Gov. presence	High - centralization	Medium	Low	Very high
Policy objective *(Chartrand et al.)*	Include culture in social welfare	Promote the artistic excellence	Promote diversity	Political eductation (Marketability)
Policy dynamic *(Chartrand et al.)*	Revolutionary	Evolutionary	Random	Revisionary
Role of national culture	Dominant – community standard	Medium-high	Negligible	Dominant - political standards (Absent - commercial stadards)
Strengths	Independence form public appeal	Support of the artistic genius	(1) Diversity in sources of funding (2) Enhanced perceptions	Energy focused to reach official shared goals
Weaknesses	Creativity stagnation	Elitism	(1) Not support of excellence (2) difficulties in valuating private donations (3) doubts about potential benefits (4) difficult computation of tax costs	(1) subservience of artists to not shared ideals (2) counterintuitive outcomes (3) origin of parallel, revolutionary movements
Origin	Royal patronage	Aristocratic patronage	Liberal patronage	Totalitarian patronage (Capitalim ideals)
Examples	European countries - France, Italy, Germany, Norway	Commonwealth countries – UK, Canada and US (after NEA)	US (before NEA)	Societ Union (Western capitalistic countries)

Table 1.1 The four models for culture financing (Source: own elaboration from Chartrand and McCaughey)

1.4 A converging scenario

The four models proposed above, and summarized in T*able 1.1*, are just a reference for identifying how States can behave. However, in general, the changes that the Arts and culture financing models are experiencing can be summarized in one great shift toward a more market-oriented solution, as showed by the Facilitator role, and the commercial version of Engineer.
The years of the great industrialization were a breeding grounds for culture, that gained its room within the government agenda and welfare policy programs. In that period, the increasing level of economic well-being and education sustained an endless growing demand for cultural pieces, that was counterbalanced by a supply set to requests. Nevertheless, the economic conditions are not stable and the general deceleration was not reflected in the supply, also because of the contribution of high exit barriers characterizing this specific sector, that led to a saturated market situation (Colbert, 2012).

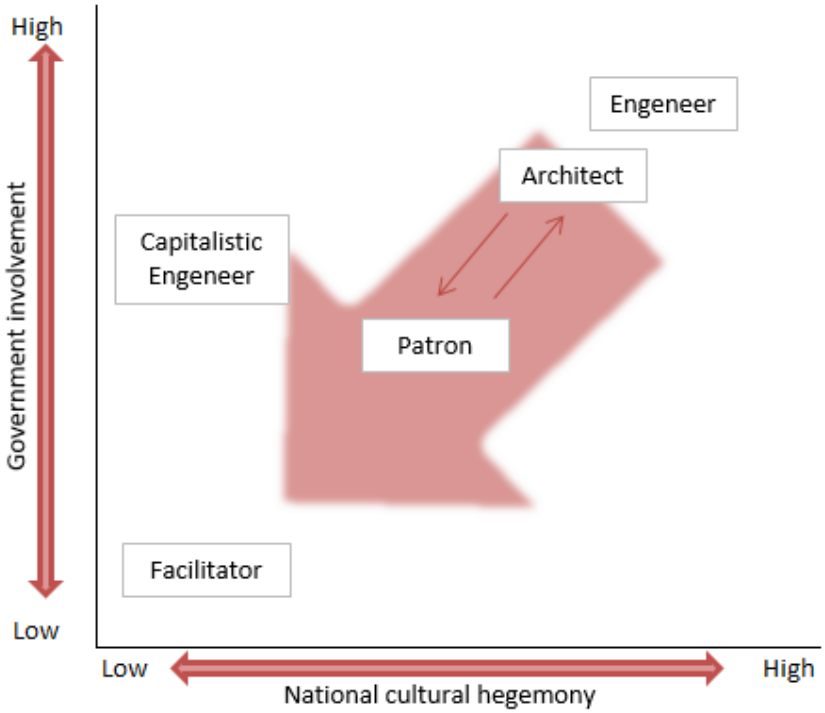


Figure 1.2: The changing scenario

If one problem is related to the cultural sector, the other is linked to the public sector, that is experiencing a drop in disposable financing resources (Shuster, 1985; Chartrand and McCaughey, 1989). The demographic boom compelled governments to review their priorities, becoming more focused on balance sheet expenditure items as social security and health-care

spending, as well as unemployment assistance plans, putting the issue of culture financing on the back burner. In other words, culture in this scenario is considered important but not necessary.

Besides the smaller shifts of the high-left part of the chart (*Figure 1.2),* in which the Architect and the Patron are integrating more and more - exploiting egalitarian principles of the former and the advisory body of the latter (Shuster, 1985)- the major trend is to follow the US mixed model. All the cultural perpetrators are seeking new source of financing, looking at the American example, in which cultural works financed are just the ones that got a high degree of public consents. In other words, thanks to its potential positive economic impact in terms of employment, revenues and tourism, the cultural sector is starting to be considered as any other productive industry: able to sustain itself with its own merits and part of a sort of cultural Darwinism (Mulcahy, 1998).

There are many ways Countries can choose to face the problem. They can try to attract corporate sponsorship, undertaking fund-raising programs or adopting differentiated pricing policies like Germany, or they can leave behind the traditional funding system in favor of a project related system, following the example of Sweden.

Even US, that during the 60s got a closer position to European Art Councils organizations, are now moving back to their private cultural policy scheme, anticipating a never seen possible extreme scenario of privatization for the near future (Zimmer and Toepler, 1996).

This clear movement toward decentralization does not stop at the responsibility shift from public to private dimension, but it means also that if governments want to keep an active role it should be a local art administration and funding initiative.

Table 1.2: Detail of "Recreation, culture and religion" expense item for the 9 key counties (Source: own elaboration of Eurostat and OECD data)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Var 2010-15
Denmark	1,56	1,53	1,71	1,78	1,86	1,78	1,81	1,83	1,81	1,76	1,76	-0,9%
of which cultural services	0,7	0,6	0,6	0,6	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,0%
France	1,25	1,30	1,30	1,32	1,42	1,43	1,41	1,44	1,46	1,40	1,32	-7,5%
of which cultural services	0,7	0,7	0,7	0,7	0,8	0,8	0,8	0,8	0,8	0,8	0,7	-12,5%
Germany	0,55	0,54	0,54	0,54	0,58	0,57	0,55	0,52	1,02	1,03	1,01	79,2%
of which cultural services	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,4	0,0%
Italy	0,61	0,57	0,59	0,58	0,62	0,54	0,52	0,49	0,52	0,51	0,51	-4,4%
of which cultural services	0,4	0,4	0,4	0,4	0,4	0,4	0,3	0,3	0,3	0,3	0,4	0,0%
Norway	1,10	1,05	1,21	1,23	1,50	1,43	1,40	1,34	1,38	1,41	1,48	3,7%
of which cultural services	0,4	0,4	0,4	0,5	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,0%
Spain	1,37	1,47	1,57	1,63	1,64	1,65	1,52	1,22	1,15	1,15	1,13	-31,8%
of which cultural services	0,6	0,6	0,6	0,7	0,6	0,6	0,6	0,5	0,4	0,5	0,4	-33,3%
Sweden	0,69	1,04	1,01	1,07	1,14	1,11	1,10	1,11	1,13	1,13	1,09	-1,8%
of which cultural services	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,5	0,5	-16,7%
United Kingdom	0,63	0,62	0,62	0,65	1,00	0,68	0,63	0,60	0,51	0,46	0,45	-33,2%
of which cultural services	0,4	0,4	0,3	0,3	0,4	0,4	0,3	0,3	0,3	0,3	0,3	-25,0%
United States	0,21	0,21	0,22	0,22	0,23	0,22	0,20	0,19	0,18	0,18	0,17	-21,1%
of which cultural services	-	-	-	-	-	-	-	-	-	-	-	-

1.5 Data overview

The general convergence described above is the main reason why data shows very similar results, despite the efforts are different both in worth and direction.

Table 1.2 puts together the government expenditure item addressed to culture of all the relevant countries mentioned in the financing models review1, providing an overview about "Recreation, culture and religion" spending, the aggregated data wrote down in the State balance sheet, and its detail of "Cultural services".

"Recreation, culture and religion" is, in effect, a macro division that includes the following groups (Eurostat):

08.1 - Recreational and sporting services
08.2 - Cultural services
08.3 - Broadcasting and publishing services
08.4 - Religious and other community services
08.5 - R&D Recreation, culture and religion
08.6 - Recreation, culture and religion n.e.c.

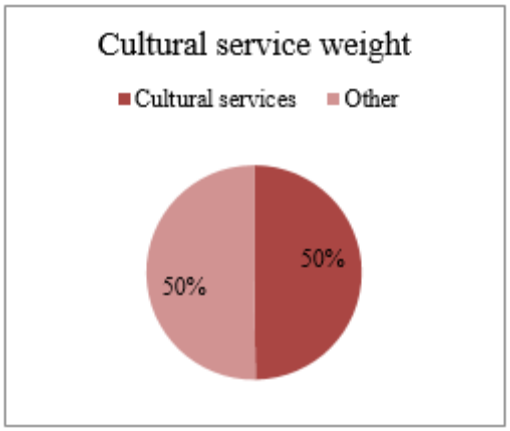


Figure 1.3 The cultural service weight (Source: own elaboration of OECD data)

Considering that the average total culture expenditure of the listed countries is slightly below 1%, the weight of each of these groups as percentage of GDP is negligible. The group that represents an exception is the one named "Cultural Services", classified with the code 08.2 by the European Union statistical office (Eurostat) and representing in 2015 the average 50% of the total expenditure item for the countries used as sample (*Figure 1.3*).

In particular, it includes all the activities related to the administration, supervision and regulation of cultural affairs; the support of facilities for cultural pursuits and for the organization of cultural events; and last, the management of grants, loans and subsidies to support individual subjects related to cultural industry and/or engaged in promoting cultural activities. All these assets take place within national boundaries, both at national and local level, and their main scope is different from being a mere touristic attraction. As represented in *Figure 1.4*, during a

[1] Data details about "Cultural services" are not available for US since the Eurostat research includes only EU countries.

10-years-period there was not a uniform trend, but the general increase in the public spending happened approximately during the period 2008-2010, preceded and followed by a drop. This created a fluctuating trend that tend to flat every internal movement when considered as a whole.

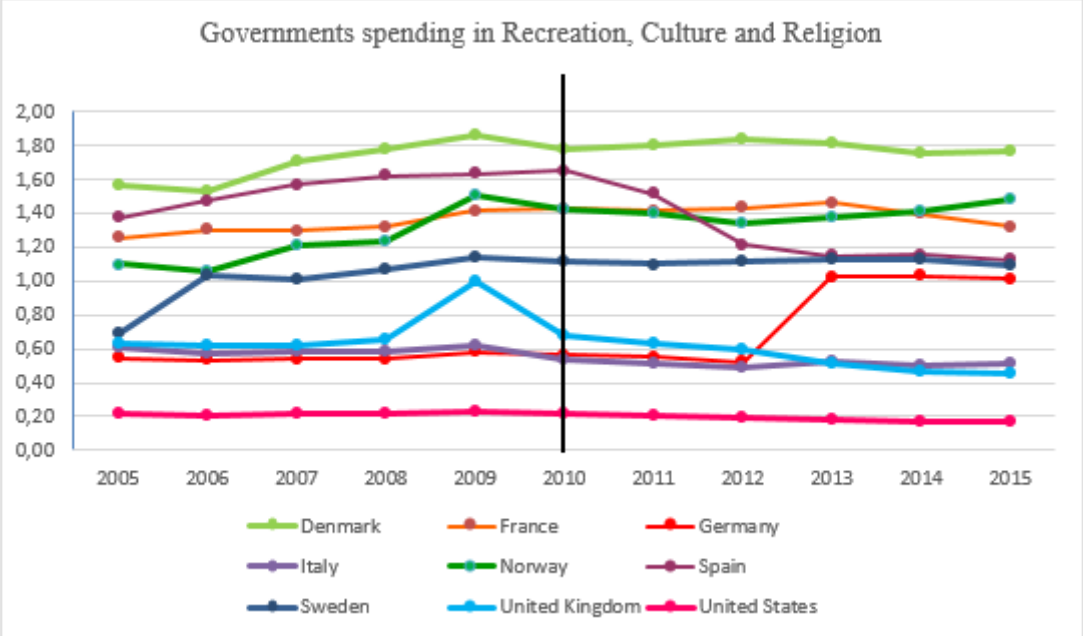


Figure 1.4: The "Recreation, Culture and Religion" spending trend during the decade 2005-2015 (Source: own elaboration of Eurostat and OECD data)

For this reason, it would be better to focus the attention in the last five-years period.

The most evident result emerging form data analysis is that the percentage of money allocated to cultural services does not always decrease in the face of a general decreasing trend concerning public resources availability for recreation, culture and religion. The only two countries against the common trend are Norway and Germany, that experienced a growth of 3,7% and 79,2% respectively. Looking at the detail of this expense item, the absolute value of money dedicated to cultural services has remained the same, suggesting that those two States diminished their engagement with cultural expenses.

As far as the other States are concerned, their level of cultural services has either maintained the same or has been decreased following the macro trend. The reason could be find on the hypothesis stating that countries are changing their priorities and methods to finance the cultural activities: now they are more external oriented and focused on private source of financing.

1.6 Conclusions

The four models known as Architect, Patron, Facilitator and Engineer (Chartrand and McCaughey, 1989) represent just theoretical roles that do not mirror the actual situation. Due to the specificities of the cultural sector and the restricting decisions about public subventions, the possibilities for culture to be funded by central organizations are diminishing.

Data about the States that mainly influence the cultural scenario, both for their heritage and their actual role in the world, confirm the decrease in public resources availability, especially considering that part of balance sheet expenditure item named "Cultural services" within the "Recreation, culture and religion" item.

For these reasons, the clearly separated models are now converging toward a common solution that leave to the State a marginal financing and decision role, in favour of the private intervention.

The inspirational role is the Facilitator, typical of the United States before establishing the National Endowment of the Arts, because of the active involvement of private citizens, organizations and corporations, that are not only playing as financing subject but also as key actors for the cultural endeavour to support.

While the private has this important role in choosing the works of art that are more in line with their tastes and public appeals, the Engineer model is part of this market-oriented solution, with an approach in which culture must be marketable and the State still keep an overwhelming position.

2. CHAPTER TWO

FISCAL ENVIRONMENT: TAXES AS INCENTIVE TO CULTURE

2.1 Introduction

United States federal government has a very different culture expenditures pattern with respect to Western European countries: this is not only explained by theories but also confirmed by data. Indeed, there is an almost 4 percentage points difference between US involvement, computed as % of GDP, and the country whose government has contributed less for advances in culture in 2015 (*Table 1.2*).

The reason behind this discrepancy is that United States approach to satisfy social needs is not particularly related to direct governmental subvention activities but it relies a lot on individuals' voluntary participation.

For years, tax policy has been investigated in order to discover whether it produce some effects on the enterprises final decision to make charitable contribution.

As underlined by Steinberg (1980), this concern around fiscal environment is not related to the idea that taxes are the primary determinant of giving, but by the belief that taxes have a certain weight since they are one of the few policy instruments already available to impact on the levels of contribution.

Keeping the American model as example, if taxes did not affect giving at all, the investment would be comparable to a mere advertising expenditure. As consequence, government would be able to relax some constraints about deductibility to minimize the forgone taxes behind sustain policies (Carrol and Joulfrain 2006). On the other hand, if taxes effectively were important for determining the amount of money dedicated to charitable organizations, including cultural ones, it would be interesting to understand the relationship between taxes and giving, the reasons behind this kind of investment and the related policy implications.

Therefore, the aim of this chapter is to identify why the favourable fiscal environment is so important for enterprises while deciding wheatear to invest into charity or culture and to understand why this characteristic, typical of United States' Facilitator model, is now cause for adjusting the other existing investment models.

Finally, after the fiscal considerations and the American best practice review, this chapter has the final objective of discussing the European response to these America inputs, especially the Italian case and its Art Bonus.

2.2 The American experience

The reason why US is the master example for describing the private side of charitable donation is that the States have always followed a distinctive approach to meet social needs, relying primarily on citizens, organizations and corporation donations.

To obtain the expected private involvement, US government leveraged favourable tax incentives linked to non-profit sector. Non-profit organizations are exempted from income and property taxes, while individuals, corporations and foundations that contribute to this sector can benefit from tax-deduction provisions.

This policy is undoubtedly linked to the American history and political heritage, characterized by strong preference for individual liberty instead of an intrusive government.

Nonetheless this parsimonious approach to public provisions that is totally opposite to the generous system of continental Europe, US can be considered the leader in the so called *hidden welfare stat*e. This definition, introduced by Howard (1997, in Cloterfeld 2012) refers to the fact that the State gives a certain amount of tax revenues up in order to grant subsidies through exemptions, deduction and exclusion from taxation. At the same time, having a policy system that seems to be totally unbalanced towards privates helps the whole American society to increase the common sense of participation. Indeed, by letting anyone to choose "how to spend money for the public good", the deduction provisions are called "democracy in action" (Carter 2011 in Cloterfeld 2012).

In other words, US and continental Europe satisfy the same social needs but in different ways. The former considers the relationship between the State and the beneficiary as mediated by privates, for a total of three subjects involved; while the latter is based on the direct relationship between the State financing subject and the cultural beneficiary.

American primacy is confirmed by data, that recorded a +550% in contribution amounts in slightly more than 30 years, as suggested by *Giving USA*, an authoritative source about charitable contribution. This number was obtained by comparing the data gathered in 1982 for the Cloterfeld studies and the most recent statistics based on 2016 data states that US went from $60 billion to $390 billion dedicated to culture.

The donors ranking, the associated weight on the total and its trend with respect of previous year are the following:

1) Individuals: 72% (+3,9%)
2) Foundations: 15% (+3,5%)
3) Bequests: 8% (-9%)
4) Corporations: 5% (+3,5%)

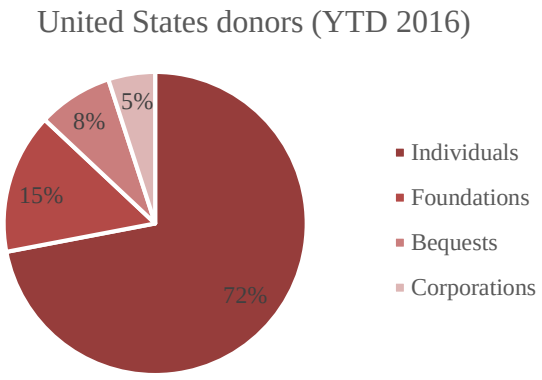


Figure 2.1 United States donors' ranking - YTD 2016 (Source: Giving USA)

Approximately, it reflects the same split that was effective since the beginning. Therefore, the following sections are aimed at investigating the reasons behind this split, with a major focus on the individuals and corporations' places.

2.2.1 Tax deduction historical background

The picture emerging from the previous paragraph underlined the fact that the role of individuals, corporations and foundations - here generically identified as "privates"- is central for the viability of culture. Therefore, a tax relief becomes increasingly important, as well.

Over the years, there is a group that is constantly having a predominant role: individuals' gifts indeed are keeping the primacy over the other financing subjects of the ranking, probably because the related rules were the first to be set up.

In 1917, four years after the introduction of the individual taxation, US congress approved and enforced tax deduction over individual contributions, whose success as giving incentive has been massive. At the beginning, the deduction was recognized only to itemizing taxpayers, namely those people whose taxable income is reduced by the deductions related to specific expenses incurred during the tax year (e.g. medical expenses mortgage interests, property and real estate tax, charitable contributions, etc..). However, in 1944, another deduction category was introduced. It is the standard deduction: an amount reducing taxable income that varies according to the taxpayer filing status. The amount is established at federal level, together with some additional standard deductions for individuals who are blind or aged above 65 (IRS).

The idea of the Congress was to achieve the best compliance with the minimum administration, but basically the concrete application turned out to be a threat rather than an opportunity for the

non-profit sector (Kahn 1960, p. 46 in Cloterfeld 1985). In fact, Americans, who were required to choose one of the two models, adhered almost entirely to the simplified method of standard deduction causing a drop in charitable giving amount. The Congress had to intervene again in 1981 to restore the equilibrium between standard and itemised taxpayers, confirming the main role of itemizers as financing subjects for non-profit sector (Cloterfeld 1985).

Despite individual donations' discipline have been challenged over time, it must be considered the most important initiative for the viability of non-profit sector especially for its new approach. It represents the precursor of all the rules concerning other entities' philanthropic activities, including corporations.

In 1936, some years after the individual contribution tax deduction had become effective, this provision was extended to corporations.

At the introduction, the Congress decided to make voluntary transfers limited up to the 5% of domestic pre-tax income and to link them to the concept of the "business judgment" (Fry, Keim and Meiners 1982). Because of its name and its meaning, it recalls the legal "business judgment rule". Its aim is to protect managerial business decisions that are intended to be made "on an informed basis, in good faith and in the honest belief he that the action taken was in the best interests of the company" (Delaware 1984). Similarly, the giving decisions cannot be challenged as they are profit motivated activities, related to stockholders' interests (Fry, Keim and Meiners 1982).

After, both the rate and the legal constraints have been modified, so that the actual deductible giving amount can reach the 10% of corporation's taxable income (26 U.S. Code, Sec. 170(b)(2)) and, thanks to the New Jersey Supreme Court, the motivation scenario has been enlarged to include reasons not necessarily linked to profit maximization.

It could be that culture investment decisions are the result of managerial discretion, the typical behaviour described by the agency theory (Williamson 1963, 1964, in Gautier and Pache 2015), that leads managers to finance preferred and sometimes unnecessarily expenditures (Navarro 1988). Alternatively, especially in small-medium enterprises characterized by the almost total match between the ownership and control, the decision-making process can be influenced by more individual's personal attitudes and motives. There are plenty of theories concerning this topic, as the bunch proposed by Obler (1981, in Cloterfeld 1985) that are based on altruism, reciprocity, and direct benefit, useful to complete the picture of philanthropic investment reasons.

As emerged, many drivers behind corporate philanthropy complicated the scenario, but thanks to its ability to create goodwill and to improve firm's image and reputation, profit and utility maximization equations are still those that better explain corporate philanthropy (Abzug and Webb 1996, Baumol 1970, Galaskiewicz 1985, Shaw and Post 1993; Stendardi, 1992, in Gautier and Pache, 2015). This is the reason why fiscal environment is so relevant for the culture financing decision making process, because of the incentive effect it is intended to create.

2.2.2 The key role of giving price

The fact that taxes influence corporate giving, rather than being a mere advertising expense, has interesting policy implications. These rules aimed at maximizing the public benefit have to be set bearing in mind how entrepreneurs strategically behave in their own interests.

First, one of the standard tricks is linked to the fact that American legislation considers donations as costs, comparable to other expenses, that must be accounted before the pre-tax income. Usually, enterprises try to increase expenses (within a certain amount) to reduce the taxable base and thus getting a tax cut over the current fiscal year.

In addition, the tax deduction represents a second benefit for corporate donors since it allows to lower the price of giving that is nothing more than what Cloterfeld names "the net-of-taxes cost of making contributions" (Cloterfeld 2012, p.7).

Obviously, it is not possible to affirm that philanthropy is just a mere device to elude taxes, but it would be completely misleading to believe only into the benevolent aspect: both individuals and corporations do care about the price of charitable initiatives (Katz et al., 2011).

Concerning enterprises, authors agree about the two equally prevalent perspectives affecting the BoD or managers investment decision. Both profit maximization and utility maximization (Gautier and Pache 2015) get the same pricing result of (1-t): the net cost of giving one more unit of money (Cloterfed 1985; Arulampalam and Stoneman 1995, Katz et al. 2011; Steinberg 1990).

PROFIT MAXIMIZATION MODEL

Following Cloterfeld's assumptions (1985) means that all the decisions are exclusively connected to the rationale of profits maximization. In his opinion, each expenditure must increase revenues or decrease costs.

In the majority of the cases, these operations affect social perceptions by mean of a new public relation function or a contribution to make communities a better place. In other words, all the aspects that now are part of CSR practices.

Despite of the kind of actions undertaken, income tax on contributions influence the managers' objectives and the classic analytic approach for maximizing after-tax profits illustrate it.

The basic profit function (1) is the starting point to obtain the giving price: revenues (R) given by quantity of goods sold times their price, and costs (C) that includes the usual production factors, as labour, capital and, just for this purpose, increased by the donation amount (G)

$$\Pi = R - C \tag{1}$$

$$\Pi = [R - C\,(L, K, G)] \tag{2}$$

Contrary to the usual theory, the function to be maximized is the after-tax profit explained by the function switch from Π to D (3). Then, a simple first derivative (4) unveils the marginal price of giving one unit more of money to charity.

$$D = [(PQ - wL - rK - G)]\,(1\text{-}t) \tag{3}$$

$$\frac{\partial D}{\partial G} = (1 - t) = 0 \tag{4}$$

UTILITY MAXIMIZATION MODEL

On the other side there is the utility maximization model, that is linked to the human aspects of corporations and it explains the philanthropic decision-making process of individuals.

Starting from the simplest situation, it is possible to imagine a situation in which charitable giving is not deductible and shareholders have to choose the amount of their income to be allocated in two different ways: charitable investment (G) or keeping them available as dividends (D) for other personal use.

$$U = U\,(D, G)$$

Given the resources potentially available to shareholders, namely the total amount of dividends, it is to understand how much of them to give up without losing some wealth.

For this purpose, the budget constraint helps to clarify the point: both dividends and donations have a price and for simplicity let's assume it to be 1. The equation becomes:

$$D + G = W$$

In which W is the total wealth that shareholders have at their disposal.
Giving to charity one unit of money more means having these one unit of dividends less so, introducing the incentive to donation as deduction form taxable income, the in 1 unit more of giving, shareholders pay the amount reduced of t. (Katz 2011)

Despite the method used, there is almost no disagreement about the net cost of making another unit of money but it is necessary to bear in mind that such reasoning is true just within the maximum ceiling accorded by the law. Once the limit is overcome, the price depends on the willingness of carrying over the excess deduction to the future (Cloterfeld 1985).
In addition, one has to keep in mind that both the models presented above are developed under the assumption of full deductibility.

PRICE AND INCOME EFFECTS

Given that the net cost of giving is (1 - t), the most important question at this stage concerns the possibility to find out the worth of what literature refers to "treasury efficiency" (Schuster 2006, Cordes 1999), namely the responsiveness of giving with respect of a one percent point change in its cost.
This issue is particularly important for public finance literature because is related to the fact that tax deduction, concretely a donation's net price reduction, has an unquestionable **incentive effect** that is commonly defined as the responsiveness of private contribution level to changes in the price of those giving thanks to the introduction of deductibility (Taussig 1967).
For years, several studies have been directed to understand the relationship between charitable donation and tax policies, and there is a certain consensus about the price elasticity of giving and its sign.
Price elasticity is a units not-related measure, which practically consists of a ratio between the percentage change of donation and the percentage change in the price, in absolute value. The mechanism works exactly as explained by theories applied for other goods: considering the absolute values, the boundary between the elasticity and inelasticity is 1. If the ratio assumes values lower than 1, namely $\varepsilon < 1$, giving is said to be inelastic, while if the ratio results to be a number greater than 1, namely $\varepsilon > 1$, giving can be considered elastic (Katz et al. 2011).

The interesting implications related to giving elasticity or, conversely, inelasticity concerns the worthiness in terms of costs and benefits including the State's position within the evaluation moment.

If giving would be price elastic, it means that the responsiveness to price change would be high and, thus, that total contributions are expected to over-react with respect to the tax expenditures that is on the State. In other words, tax deduction, as expenditure for the State, influences privates' perceptions so that private contribution is likely to be increased more than the estimated give up revenue of the subsidy bore by the State. In this way, the State's cost of the incentive is justified and it is thus likely to be implemented (Shuster 2006, Cordes 1999).

On the opposite, if giving would be price inelastic the economic effort that is on the government is not worth it, since changes in giving price does not impact enough donors' willingness to adhere to charitable practices.

By applying the classical theories recalled so far, the expectations would predict prices to negatively affect giving and, as consequence, tax rate to be positively related to it (Arulampalam and Stoneman 1995): the negative sign of the ratio would suggest that with an increase of the marginal price, the total amount of contribution is expected to decrease (Steinberg, 1990). These findings were confirmed by many studies for years (Cloterfeld, 1985, Steinberg 1990); however, many new analyses challenged this belief and questioned the role of 1, in absolute value, as critical value between elasticity and inelasticity. Indeed, someone advanced the hypothesis of no impact of taxes on giving (Navarro, 1988) or the negative correlation between giving and tax rate (Boatsman and Gutpa 1996, in Carrol and Joulfrain 2005).

Regardless these too extreme positions that might be impacted and derailed by the method used by the statistical analysis, the more supported theory states that price elasticity has been overestimated over years: it still exists but the responsiveness is smaller than expected (Barrett, McGuirk and Steinberg 1997).

However, the substitution effect, also known as price effect, that is what theorists define as the quantity demanded change recorded because of a change in the good's price relative to the other products (Katz et al. 2011), is just one of the two possible effects in which tax rate can affect giving level.

The other is the income effect, visible on the change in the consumption pattern related to a change in the purchasing power or, in other words, related to the fact that the after-tax income

at manager disposal has changed (Katz et al. 2011, Steinberg 1990). Income effect, that is expected to be positive and less than 1, can be generated by different phenomena like income increase, currency fluctuation or, even better for the sake of this analysis, price changes.
Related to companies, the latter is the most interesting interpretation, since the classical aspects addresses mainly the individual component of investment decisions, and, as Shuster sustains (2006), a change in the price of giving accomplished by a change of the donor's marginal tax rate lead to changes of donors' taxes. As consequence, even his/her net after-tax income is affected by a change with opposite sign and the donors' contribution might end up increasing.
Thus, even if scholars tried for years to learn the final direction of donors' behaviour, it must be faced that the main difficulty in determining whether the sign of this relationship is positive or negative is due to the impossibility to statistically separate the substitution and income effects (Taussig 1967), that are under the influence of specific circumstances. It is impossible to determine univocal results ex-ante and the unique possibility is to perform empirical studies in order to find out a behavioural pattern (Steinberg 1990).

THE ROLE OF THE STATE: CROWDING OUT

For years, scholars focused on the clear trend behind changes in charitable giving amounts as response of price and income changes, probably making some evaluation mistakes because they did not consider some adjusting factors. Some of them are:

- The level of public benefit derived from the activities supported by privates
- The subjective beneficiaries' profile
- The possible existing gap between the donors' expectations and the effective benefit
- The State financing contribution parallel to privates' contribution

Referring to the last point, Abrams and Schmitz (1984) leveraged once again the utility maximization theory to underline the importance of government supporting policies on the privates' final decision about whether to invest and which amount.

As already recalled, each patron would make charitable contributions up to the level where marginal cost equals the marginal benefit of giving. However, things get complicated when taking into account the interest of donors toward the well-being of potential recipients.

The behavioural component of those donors' contribution decision is explained by the interdependence utility function theory, starting from the consideration that people tend to give more as the recipients' income falls (Cloterfeld 1985).

For this reason, the implementation of an expansionary fiscal policy, done with an increased economic government involvement, is perceived by private donors as an increase of the recipients' welfare: as consequence their utility function reacts negatively and the incentive to donate decreases.

The fact that the public-sector spending somehow slows down the private sector expenditures is commonly known as crowding out effect and, as Cordes writes (1999), there are many theoretical models stating that privates have a strong interest to reduce their level of involvement when government directly makes grants instead of using the indirect subsidy technique.

The donors' ability to see through the veil of government aid programs allow them to assess the charitable organizations needs for contributions and even statistical analysis confirm the crowding out substantive effect of governmental transfers: $1 increase in total welfare expenditures would cause aggregate private contributions to fall approximately of 30% (Abrams and Schmitz 1984).

Given the negative relationship between the government financial participation and the private contribution, even the opposite effect should be true. Namely, cuts in governmental expenditures directed to culture and cultural organizations being part of the cultural domains is expected to push the interest of privates towards contributions.

If governments are forced to be removed from their culture active supporter role due to the lack of resources, the reverse effect of crowding out became one of the crucial elements for the implementation of the actual cultural policies. United States already taught how efficient turned to be the association of little public resources and many private means, positively influenced by the adoption or increase of the tax deduction, but also European countries are assimilating and implementing their own version of this positive and efficient practice.

2.3 The European reply

The typically US practice of offering benefits to donors landed into European territories years ago, starting form UK that was recognized for its cultural generosity and philanthropic activities.

It was during 1920s that the UK government started to offer tax benefits to donors, as a recognition for private initiative and individual commitment to benefit the public good. The incentive mechanisms are so different among countries mainly because of tax deduction and tax reduction. Comparable studies do not exist; however, it is possible to track a kind of reverse trend among European countries that recognized tax treatment as an important factor for companies and private individuals willing to increase their investment in the culture sector and lower the heavy tax burden. After the freeze during the world war period, France was one of the forerunner of this reversal trend in the traditional tax approach, followed by the other European countries until Sweden in 2012, the last case recorded (Observatoire de la Fondation de France CERPhi 2015).

France is particularly important in the European scenario since it set the basis for the Italian Art Bonus development. The entity whose importance has to be recognized for implementing flexible laws about tax incentives is Admical, founded in 1979 and still operating. Thanks to this association, in 1985 patronage was recognized to be advertising expenses and it was subjected to deduction from taxed income. Moreover, in 2003, the tax incentives related to patronage experienced an increasing trend (Urrutiaguer 2014).

The French scenario is now considered the most attractive one among liberal democratic States, thanks to the 60% tax deduction recognized to enterprises within the limit of 0.5% of its turnover (Ministère des sports, de la jeunesse, de l'éducation populaire et de la vie associative 2017) introduced with the law of 1st August 2003. Most likely these are the reasons why there are so many contact points with the Italian version of subventions, a topic we will go into in the following sections.

2.3.1 The Art Bonus

Considering that Italy is one of the richest country in the world in terms of heritage, the need for additional help for its support seems obvious. Italy can boast 52 out of 1073 properties recognized by UNESCO, whose 89% belongs to cultural heritage, while the remaining 11% is classified ad natural (UNESCO 2017). Consistently with the other States, also Italy decided to focus the attention on private donations by proposing urgent measures for the development of the cultural sector. The Law Decree No. 83/2014, published in the official gazette on 31 May 2014 and entered into force on July 29th, 2014 after the Parliament and Senate approval, dedicates the first article to the fiscal relief system commonly known as Art Bonus.

This provision is based on the grant of a tax credit for all taxpayers who are willing to subsidize three types of culture and cultural activities, grouped on the base of the ownership and the kind of intervention, but with a common characteristic. All the donations must be made in cash (Buzzi 2017).

- Type A: the intervention is aimed at the maintenance, protection and restoration of public cultural assets and the beneficiary to which the Art Bonus is addressed is the subject that hold the concession of that asset (i.e. cultural heritage recovery activities)

- Type B: the intervention is aimed at the support of public cultural institutes and places (e.g. museum, libraries, archaeological sites and areas, monumental complex), opera and concert halls foundations, traditional theatres, concert and orchestral institutions, national theatres, culturally relevant theatres, festivals, theatres and ballet centres.

- Type C: the intervention is aimed at the construction of new facilities, restoration and enhancement of existing ones owned by public not-for-profit entities or institutions that operates in the entertainment field.

When introduced, the tax relief was supposed to be equal to the 65% of donation during the first two years and then, for 2016, the tax rate was supposed to decrease to 50%. Since the government was not sure that the Art Bonus was going to be successful, it decided that the norm would have been valid just for three years.
But, when results started to come in, the rule has been made permanent since it was included into the Law No. 208/2015, known as Stability Law.
Even if all the taxpayers can contribute and benefit from the tax credit, irrespective on their nature and juridical form, the law distinguishes individuals and not-profit entities from enterprises, setting different rules and limitations according to their status.
For corporations, that are the focus of this research, the Art Bonus is applicable to all the donations being worth a maximum of 0.5% of their annual revenues. Precisely, the tax credit can be used as compensation of due taxes incurred during the pursuit of normal business activities, as self-declared in the fiscal documents, but only for a maximum of 1/3 of the quota per fiscal

year. Nonetheless, if the enterprise is not able to use the total or partial amount within the time slot, the State gives the possibility to carry forward the tax relief.
Following one possible interpretation, like the Lupi's one (2014), the Art Bonus can be seen as a reverse charge subvention: in other words, a tax payment tool that can be used by taxpayers after the tax return self-declaration to the State, without the direct and immediate intervention of any fiscal authority. This is a clear bureaucracy simplification or, conversely, a responsibility discharging process that is not considered less potentially dangerous than it should be, since the Art Bonus counterpart is no other than the State. Nonetheless, prudence necessity led the government to set some specificities like the 0.5% as maximum ceiling, the intervention cash nature, the trackable payment means requirement and the asset's public ownership that should grant the possibility to audit the donations.

With respect of other disciplines, it seems that the Art Bonus has less strict rules and provisions thanks to the fact that the counterpart is the State, the same whose auditor role is assigned to. Nevertheless, the rule still specifies in detail the characteristics of donors, beneficiaries, gifts and intervention opportunities, basically, leaving to the free will a limited bunch of aspects. As consequence there is the need to have several different complementing market oriented provisions, in order to cover all the facets of culture financing issue.
In brief, donations as public funding, both interested and disinterested, are:

- CULTURAL PATRONAGE LAW (art.100 2°c, letter m of TUIR)

A 15 years old rule stating the full deductibility of taxable income used for the cash donation to the State, Regions, Local entities, non-profit Public Entities and Intuitions, Foundations and Associations that are legally recognized, for the realization of cultural and entertainment projects.
The maximum ceiling for this kind of donation is set at €139.443.362,75; and, in addition, the government provided a repayment to the Treasury for the 37% of the exceeding amount chargeable exclusively to donors, in order to limit the possible negative income on the State balance sheet.

- ART AND CULTURE SECTOR'S OTHER FISCAL ADVANTAGES (art.100 2°c, letter F of TUIR)

It was originally intended to provide support to State and legally recognized non-profit Entities, Institutions, Foundations and Associations for two main activities: (1) carrying on their study and research activities, and (2) for the purchase, maintenance, protection and restoration of cultural public assets. Now, to avoid the overlap with the Art Bonus, only the purchase of public asset is cover by this rule.

- CHARITABLE DONATIONS TO NON-PROFIT ORGANIZATIONS (art.100 2°c, letter H of TUIR)

The benefit is addressed to non-profit organization operating, among other, in the cultural sector. In order to be accepted, the cash donations must not overcome the roof of € 2065,83 or the 2% of enterprise's income.

- "THE MORE YOU GIVE, THE LESS YOU PAY" (Law No. 80 of 14/5/2005)

It consists in fiscal advantages for enterprises that give money to Foundations and Associations engaged in the protection, promotion and enhancement of cultural, artistic and landscape heritage. It can be used for donations up to the 10% of the financing subject's income and not higher than € 70.000 per year.

- SPONSORSHIP (Art.108, 2° c of TUIR)

This law allows the full deduction of advertising and marketing expenses linked to a contract whose parties are involved in a two-sides performance: the sponsor is committed to supply a cash or in-kind benefit for the realization of an initiative, and on the other hand, the beneficiary is committed to advertise or promote the product, the brand or some distinctive signs of financing subject. In other words, the enterprise gives money to obtain a benefit in terms of public image.

It is interesting to recall the fact that sponsorship has different implication thanks to its dual nature: advertising and promotional expenses, and entertainment expenses. The former is contractually regulated because it is related to costs incurred for encouraging the demand side of the product supplied, and it allows the full deduction over five years at constant rate; while the latter is aimed at providing a positive image about the company and its activities, and its deduction is limited to 1/3 over 5 years (Trupiano 2005).

As anticipated above, all these rules are essential to discipline the different aspects of the patronage system but, sometimes the risk of hyper-regulation cases is high because excessive and too strict discipline can cause negative returns exceeding positive ones (Manfredi, 2014).
Also Franceschini Minister, during an interview directed by Cerchi (2015), admitted that "it's time to tidy-up". The main idea is to come up with a transparent system but "leaner and faster" (Cerchi 2015) capable of involving at the same time private individuals and enterprises interested in the pedagogical value of financing culture. In other words, Art Bonus is meant to be just the first step toward a new system aimed at activating the social participation at national level, overcoming the marked boarders that always limit the donation to the geographical area donors belong to.
One of the element in the government's spotlight is the roof on the 5 per thousand for business income: this is the major argumentation for those who challenge the rule.
Even if during the past there has never been such a high donation, imposing a maximum ceiling means somehow limiting the potential enterprises' generosity, especially if the firm is characterized by low costs and high income.
For this purpose, as Lupi (2014) states, there are some implications linked to the 0.5% limit that can be summarized into two points:

- unequal impact on firms operating in different sectors
- unequal impact on firms characterized by different dimensions

Different sectors. The first sentence can be explained taking into example two firms with the same business worth, namely the same revenues, but different costs as they belong to **different sectors**. Firm A, hypothetically operating in the retail market, faces significant costs, while Firm B, that may be a consultant firm, is characterized by a lower amount. Since the ceiling is computed on the revenues, both have the same gifting limit but, clearly the impact on the business result is different and relatively smaller for intangible type firms.

	Firm A	Firm B
Revenues	**€ 1.000.000**	**€ 1.000.000**
Costs	€ 900.000	€ 100.000
EBITDA	€ 100.000	€ 900.000
ceiling 0,5%	€ 5.000	€ 5.000
Donation impact	0,05	0,01

Table 2.1: Art Bonus application on different sector firms (Source: own elaboration)

Different dimensions. The sentence related to the firm dimension can be based on the assumption of an **equal EBITDA**: it is difficult to theorize something starting from this financial statement value since it is largely influenced by the business sector the firm belongs to. However, just for the sake of this research the following example is used to give a hunch.

Two firms can reach the same EBITDA level irrespective of their size, but firm's dimension is important once the firm has to decide the amount to invest.

The **bigger firm**, namely Firm C, has the possibility to be **more involved** in cultural initiatives rather than the smaller firm. This is because revenues are the reference for the ceiling calculation. As consequence, Art Bonus has been accused of being an incentive clearly directed to the patronage made by large enterprises, that can benefit especially by the image return of this donation.

	Firm C	Firm D
Revenues	€ 2.000.000	€ 200.000
Costs	€ 1.900.000	€ 100.000
EBITDA	**€ 100.000**	**€ 100.000**
ceiling 0,5%	€ 10.000	€ 1.000
Donation impact	0,1	0,01

Table 2.2: Art Bonus application on firms belonging to different business sectors (Source: own elaboration)

Alongside the introduction of Art Bonus, the government included also some considerations about the financial covering. Granting this kind of subsidy means that the State gives up a significant part of revenues but, with the aim of having a return, it is compensated by a reduction of structural intervention for economic policy fund.

2.4 The comparison

Despite Art Bonus has been modelled on the Facilitator United States example, there are many points of differentiation.

Using the main characteristics of the two models, it follows a simple example, assuming to deal with two firms characterized by the same financial statement values, as well as the same willingness to donate (in bold) but located in the two different countries.

This example is just an oversimplification but it respects the specificities characterizing the two models, allowing to underline the point of difference and to make some interesting considerations.

AMERICAN MODEL		ART BONUS	
Revenues	**100.000**	**Revenues**	**100.000**
Costs	**21.000**	**Costs**	**20.000**
OPERATING INCOME	79.000	OPERATING INCOME	80.000
Taxes (28,5%)	22.515	Taxes (27.9%)	22.320
PROFIT	56.485	PROFIT	57.680
Ceiling (10% pre-tax profits)	7.900	Ceiling (0,5% revenues)	500
Donation	**1.000**	**Donation**	**1.000**
Deduction (100%)	1.000	Deduction (65%)	325
Giving price	715	Giving price	675

Table 2.3 The comparison between the American model and Italian Art Bonus (Source: own elaboration)

Donation. The first discrepancy emerging from the comparison of the two models is the purpose given to the donation. United States' Internal Revenue Code allows to account the giving amount as costs while Art Bonus decree does not allow to consider that amount as an element affecting the taxable base. As consequence American firms taxable base would be greater that the same situation occurring in Italy.

Tax rate. The gap between tax rates is an element that put at the same level the two countries. The American tax rate of 28.5% used in this example is the sum of the federal component, at 21%, and the mean of top state tax rates (7.5%) decided at national level (KPMG). Indeed, the Italian tax rate is composed by the 24% of IRES, recently revised downward (law 208/2015), and the 3.9% due to IRAP, for a total tax rate of 27.9%.

Tax rates equals, the impact on profits would be greater in the American case. However, the recent change in Italian tax rate for corporation makes the two profits more similar than expected.

Deduction ceiling. The maximum percentage ceiling admitted by law is totally different between the two countries, and it is also referred to different budget items. In other words, if the American system looks at the industry, favouring intangible based enterprises, the majority of Italian donors are expected to be the ones with wider businesses.
Deduction rate. While America is known to grant the full deductibility, Art Bonus allows to recover just the 65% of the donation made within the maximum ceiling. This relief represents a tax credit usable as 1/3 quota per year.

Giving price. All the elements here discussed are crucial for determining the bigger difference between U.S. and Italy: the giving price.
Most of studies, including those reported above, underline that the net cost of donations is given by the donation amount times its marginal cost (1-t). This is true for the American model but not for Art Bonus, whose giving are not subjected to taxation. On the opposite Italian companies have to consider the partial deductibility as recoverable amount constraint.
Given the number used for this oversimplified example it would be easy to declare that the system set up by Italian government is more convenient than the one proposed in the United-States, however these results are challenged by increasing numbers of a bit: bigger inputs lead to an output capsizing, with a favourable situation in U.S. rather than in Italy.
In conclusion, none of the two models overcome the other in terms of benefits and structure. On the opposite, each one is good with respect to one specific category of corporations. Bigger and more profitable enterprises fit well with the American model, while those of smaller size could benefit more from Art Bonus; reflecting the real situation of corporation' location: small-medium family businesses in Italy and big multinational companies placed overseas.

2.5 Conclusions

The predicted importance of tax policies as key variable for giving decision has been confirmed by numerous studies, first based on individuals and then extended to corporation investment behaviours. The results from a behavioural point of view shows that there is no difference between philanthropic contributions and other consumers' purchasing decisions: both depend on considerations about prices, income and people preferences (Steinberg 1990).
By narrowing the analysis field to giving prices, it is possible to obtain an explanation to pending questions.

First of all, as declared by Steinberg (1990), taxes would seem to reduce a donor's overall purchasing power, presumably reducing their willingness to donate, *ceteris paribus*. However, this effect with negative sign is challenged by two considerations affecting positively the desired level of donation: the fact that giving in U.S. is accounted as expense so that more donations would decrease the taxable income, and the fact that current tax policy deduction reduces the effective price of donating.

The typical wondering about discrepancies in donation frequency between America and Europe can be explained by either different tax treatments and some factors embedded in cultural heritage. However, things are changing and European countries, including Italy, are experimenting with new culture management. It is a model based on a broader integration between the public and private sectors, leaving a wider role for individuals, businesses, banks and foundations.

After a quite comprehensive analysis of Art Bonus, the new entry in the Italian culture funding scenario, it is possible to realise how American and Italian models are different and how misguided it would be the combination of Italian corporation donors' data with theoretical background based on American cases.

Italian legislation recognized the importance of the fiscal environment as impacting factor for donors' investment decisions and created a subsidy model that suits the Italian enterprises scenario in order to exploit and grant the best benefits. At the same time, it is equally important to dedicate the right attention to the possible existing pattern behind enterprises investment decisions under Art Bonus regulation.

3. CHAPTER THREE

THE MODEL

3.1 Introduction

Many studies underlined that the reasons behind an Arts and Culture investment can be multiple, sometimes they are individual oriented and some others they are completely driven by business and returns.

Recalling one of the most recent summarizing studies (Gautier and Pache, 2015), corporate philantropy had been investigated with almost equal efforts about its main components: management (33%), outcomes, but especially drivers (44%). The several studies provided a rich set of answers to the common question about the reason why corporations would choose to donate. There are companies that use to include those investments within well-organized CSR plans. While, others are more focused on the community's welfare improvement, especially the environment in which they run their business operations on a daily basis. Last, there are companies that would like to boost their brand identity through marketing-oriented activities.

For sure, the several different drivers have different impacts on the firms' final aim and literature tried to make them construable by clustering the variables into few manageable groups.

Individual drivers usually distinguish between the owner and manager interests recalling the ongoing battle between profits and utility maximization, into which ethical issue has been introduced recently. *Firm-level drivers* identify the corporate dimensions that has demonstrated the higher impact on the amount and patterns of corporate giving: available resources, advertising expenditure, board membership, ownership structure and executive network belong to this category. While, *field-level drivers* assume that distinctive market features are going to influence the firm's attitude toward philanthropic giving as, for example, industry structure, consumer orientation, environmental and social externalities or fiscal environment.

Nonetheless, it is important to keep in mind that different investment patterns are highly influenced by the cultural framework and the historical period in which they occur. Therefore, it is reasonable to question whether the company predictors highlighted by the authors since now are to be considered with a worldwide validity or just related to the American scenario (74% of

studies analysed by Gautier and Pache, 2015) in which all the early studies were born. In addition, it is important to consider that the referred studies lack of methodological diversity, since they use only simple or multiple linear regression to analyse the effect of one or more predicting variables on corporate philanthropic willingness to donate.

Keeping fixed the fiscal environment, the previous chapter subject, and focusing on all the other corporate related variables, the aim of this chapter is to fill that void by building on existing research field. In fact, the goal is not only to verify the impact of the single corporate variables but to take a step further by building a model explaining how all these variables simultaneously influence a firm's philanthropy.

3.2 Research questions

In the attempt of deepening the relationship between business and the Arts and Culture investments, questions about drivers becomes central. The central point is not just the impact that drivers could have on the Italian companies, but it concerns the effective role they play to generate unique investment profiles. The existence of different types of business investment, in corporate finance as well as concerning the Arts and Culture, is the leading hypothesis for the first explorative part of the research, that wanders *What are the characteristics of different investing styles in the Arts and Culture adopted by Italian companies benefiting from Art Bonus rule?*

Once the profiles are figured out, the research would take a step further with respect to the early studies that was aimed at identified the existence of corporate features' impacts on giving activities. For this reason, the second research question posed for study is: *What are the enterprises features, either organizational, behavioural, industrial and financial, determining the investment decision and predicting the different investing styles?*

3.3 The research design

3.3.1 The sample

The sample is the result of the combination of two different databases.

DONATIONS

The first part of the sample has been created with both the data available on the website and those kindly shared by ALES S.P.A., the sole member limited company entitled by the Italian

Minister for Cultural Assets and Activities of managing data and activities connected to the Art Bonus.

DONATION YEAR 2014		
	DONORS Q.TY	DONORS %
Institution	17	4%
Enterprise	16	4%
Natural person	15	3%
Tot. known	48	11%
Anonymous	399	89%
TOTAL[1]	447	100%

DONATION YEAR 2015		
	DONORS Q.TY	DONORS %
Natural person	408	22%
Enterprise	260	14%
Institution	47	3%
Tot. known	715	39%
Anonymous	1137	61%
TOTAL[1]	1852	100%

DONATION YEAR 2016		
	DONORS Q.TY	DONORS %
Natural person	403	17%
Enterprise	318	14%
Institution	67	3%
Tot. known	788	34%
Anonymous	1532	66%
TOTAL[1]	2320	100%

DONATION YEAR 2017		
	DONORS Q.TY	DONORS %
Natural person	406	17%
Enterprise	324	14%
Institution	54	2%
Tot. known	784	33%
Anonymous	1605	67%
TOTAL[1]	2389	100%

Table 3.1: Financing subjects' insight – Art Bonus 2014-2017 (own elaboration of data provided by artbonus.gov.it)

Despite absolute numbers seems to record a very positive trend (+434%) since the Art Bonus had been introduced, percentage values underline a flatter trend stated at 30-70 respectively for known donors and anonymous, especially in the last two years. This observation is necessary to make aware that all the data managed from this point forward inevitably depends on the disclosure level chose by donors when giving, therefore also final results may not reflect the reality so precisely.

Nevertheless, the overall trends for these two categories bode well since donors are moving toward identifiable status (*Figure 3.1*).

Focusing on enterprises, ALES database helped to get precious and detailed information about main donations' features occurred since the Art Bonus introduction until the 31st December 2017.

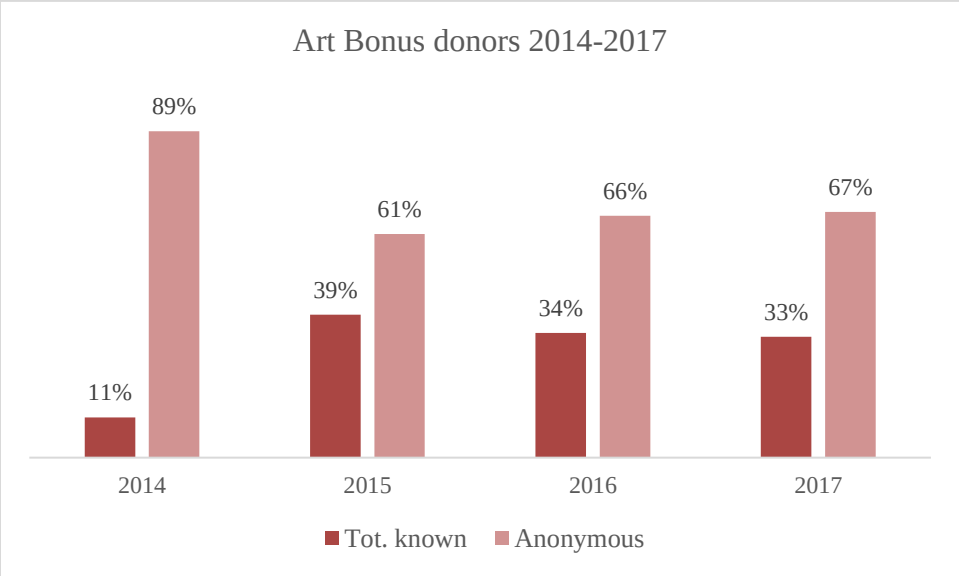


Figure 3.1: Anonymous vs known donors' scenario – Art Bonus 2014-2017 (own elaboration of data provided by artbonus.gov.it)

The characteristics available are listed in *Table 3.2*.

Company name	Name that the company used to record the giving in their reserved area of Art Bonus website
Donation object	The name that identify the artistic/cultural good or institution aided with the giving
Object's type	Reference to the donors' investment type choice. As introduced in the "Art Bonus" paragraph: Type A – Maintenance interventions Type B – Generic support to cultural institutions and places Type C – Realization, restoration and improvement interventions
Object's geographical position	Details concerning the city, province and region where the object is located
Object's management institution	The institution, association or public entity that manage the object and concretely benefit from the donations
Object's owner	Reference to the object proprietary, usually the same who manage the object
Donation date	Donation' s exact date: from March 2014 to December 2017 (included)
Donation amount	Exact amount donated by the firm: form € 30 to € 7.000.000

Intervention detail	Object type specification

Table 3.2: Donation variables (own elaboration of data provided by ALES S.P.A)

The fiscal code, manually recovered with reference to the company name, assumes highly relevance as link between the two databases: the Arts and culture investments on one side and enterprises features on the other side.

ENTERPRISES

The enterprises part is a cross sectional data set, concerning observation of all the different variables in a certain point of time. Despite the common rule, data do not correspond exactly to the same period of time because of an arbitrary choice: all the data about sales revenues, total assets, income, number of employees and age are gathered in their value recorded the year before the donation since they are subjected to the assumption that giving behaviour is highly influenced by the patrimonial situation effective when the business plan is set.
Data about the ownership situation and company reputation are referred to the last year available, namely 2017, because of the impossibility to get the necessarily details to be aligned with numerical data mentioned above.

ENTERPRISES YEAR 2014		
	DONORS Q.TY	DONORS %
Limited companies	11	2%
Partnerships	4	1%
Cooperatives and consortia	1	0%
TOTAL DONORS	447	

ENTERPRISES YEAR 2015		
	DONORS Q.TY	DONORS %
Limited companies	210	11%
Partnerships	30	2%
Cooperatives and consortia	20	1%
TOTAL DONORS	1852	

ENTERPRISES YEAR 2016		
	DONORS Q.TY	DONORS %
Limited companies	244	11%
Partnerships	52	2%
Cooperatives and consortia	22	1%
TOTAL DONORS	2320	

ENTERPRISES YEAR 2017		
	DONORS Q.TY	DONORS %
Limited companies	285	12%
Partnerships	26	1%
Cooperatives and consortia	13	1%
TOTAL DONORS	2389	

Table 3.3: Enterprises insight – Art Bonus 2014-2017 (own elaboration of data provided by art-bonus.gov.it)

To deepen a bit the knowledge about the sample set it is interesting to note that, because of the high number of anonymous and the impossibility to gather data about companies with a juridical form different from limited companies, cooperative societies and consortia, the number of cases in the sample is notably narrowed with respect the full potentiality. As demonstrated by the *Table 3.3*, it corresponds to the 2% in 2014, 12% in 2015 and 2016 and 13% in 2017; with

a total sample made of 806 analysable enterprises, corresponding to the 39% of the total potential Art Bonus sample.
Even if 806 cases can be considered a numerically meaningful sample, this evidence underlines that the results of the analysis are relevant but not exhaustive of all the possible cases that could occur within Art Bonus scenario, due to data limited availability.

3.3.2 Research question #1: investment profiles

In order to answer to the first research question "*What are the characteristics of different investing styles in the Arts and Culture adopted by Italian companies benefiting from Art Bonus rule?*", we adopted an explorative data analysis technique. In particular, cluster analysis is a statistical method aimed at identifying and organizing observed data into relatively homogeneous and meaningful groups, based on proximity, namely specific similar characteristics (Hair et al., 2010).
Among the different existing clustering types, the one that fits most the data gathered and the aim of this research is the agglomerative hierarchical procedure, because it allows to create not predefined groups by a straightforward stepwise procedure, combining objects into clusters.
In particular, the agglomerative technique - from the bottom up - enables to begin from the single observations, considered clusters themselves, and moving toward larger groups by merging the developing clusters two by two on the base of similarities. The result is a tree-like structure, that potentially can end with a single large cluster.
For this research, the cluster analysis has the most traditional purpose: to explore and create an empirical classification of observations. However, it is not an end in itself. By grouping real observations, cluster analysis should give a simplified perspective for additional analysis directed to underline the potential relationship between variables, that would not be so clear just looking at the single data.
Despite there is not consensus upon the methodological processes, experts seem to agree on what are the key issues related to cluster analysis (Ketchen and Shook, 1996). For developing the following section, these analysis key steps are considered as building blocks. The multi-step operative approach has been summarized into three main categories: *Cluster Analysis Objectives, The research design* and *Cluster solution: the profiles*; in which each critical topic has been treated and deepen, without getting it off the stage of the process it belongs to.

Cluster Analysis Objectives

A clear research problem is a good first step for the correct set up of cluster analysis. Once the objective is defined, it is possible to focus on preparatory issues like the sample structure, the most relevant variables to be used and their specific features, in order to understand whether they need further resizing or adjustments before implementing the partitioning process.

VARIABLES SELECTION

Selecting variables along which to group investment data, is one of the most important step of the cluster analysis, thus it requires a certain degree of attention.

The most used basic approaches for identifying the appropriate clustering variables are three: inductive, deductive and cognitive (Ketchen et al., 1993 in Ketchen and Shook, 1996).

Being a research with explorative nature, the approach selection automatically excludes the deductive approach, whose number of variables and the expected groups, both variety and nature, are strongly tied to theory.

Both the remaining approaches avoid making theory-based predictions. The inductive method assumes that there are no possibilities to know in advance each variable's impact. Therefore, multiple tests with many clustering variables is the right way to increase the likelihood of discovering meaningful differences. If this method strongly relies on dimensions that researchers consider important for the model, the cognitive approach is based on experts' opinions.

Since there are not reference studies describing business investments addressed to the Arts and Culture, the only applicable approach seems to be the inductive method. But, some typically financial investment implication can be considered to complete the framework.

Standard capital budgeting principles, the investment evaluation process through which the company decides the yearly project strategy, teach that a good investment enhance the enterprise value as the market emphasizes and capitalize on the situation in which benefits exceed costs. Irrespective on the method used to evaluate the project, as for example, the net present value or the discounted cash flow, the investment milestones are for sure the costs and revenues, a time-related dimension and the discount rate (Berk and DeMarzo, 2011). In addition to the classic costs and revenues, the time variable allows the comparison between the actual cost and the revenues, especially those expected to occur in the long run, while the discount rate includes both return and risks. However, by applying this kind of discipline to socially responsible investments, it is important to consider some social, ethical and environmental dimensions of the

investment policy (Sparkes, 2001), that tend to shift the issue to the sustainable development framework as shown in *Figure 3.2* (ICLEI, 1996 in Giddings and al., 2002). Indeed, this subject pinpoint that "a better society produces a better environment for business" (Davis, 1973, p.313, in Gautier and Pache, 2015).

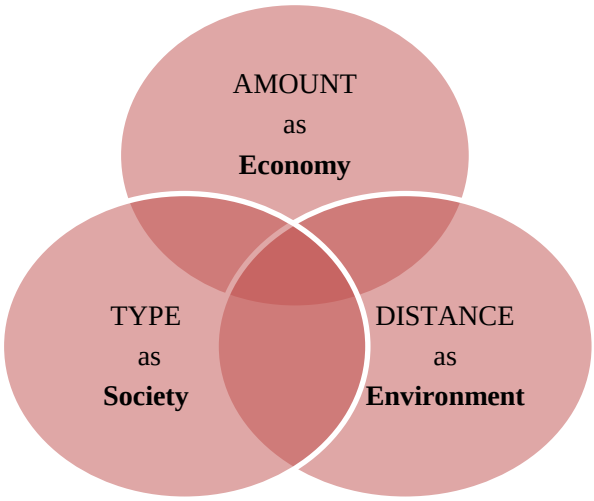


Figure 3.2: Three-ring sector of sustainable development review with cluster variables (Source:own elaboration of ICLEI, 1996; in Giddings, 2002)

Within this integrate framework, three variables assume a relevant meaning: *AMOUNT*, that correspond to the cost economic dimension, *TYPE*, that incorporates both the risk component and a social engagement, and *DISTANCE*, that is mainly an environmental variable.

Despite the donation year was an available information, it was not used as time dimension because it gave no information about the returns length.

The potential information related to the timing has not been considered among investment variables following the principle by which irrelevant variables must be excluded due to the high sensitiveness of clusters. On the opposite, the time-related variable, analysed as investment frequency, has been considered within the enterprise variables since it is more likely to predict the firms' behavioural component.

Last, no return variable is planned for the cluster analysis because CSR activities do not expect a direct return from any kind of gift and this is considered the primary distinguishing characteristic between philantropy and sponsorship (Godfrey, 2005, in Gautier and Pache, 2015). Instead, some considerations are left for the corporate variables part since the benefits are more likely to affect different business area.

TYPE. As introduced in the donation sample, TYPE variable (*Table 3.4*) is an evolution of "Object's type" because it identifies the categories of each donation object, describing the funding purpose. Those categories, fix and predetermined by the Government, are three and for the research purpose they have been interpreted as donors' different engagement degree:

TYPE	DESCRIPTION	ENGAGEMENT DEGREE	VARIABLE
A	Maintenance interventions	Medium	2
B	Generic support	Low	1
C	Realization, restoration and improvement interventions	High	3

Table 3.4: TYPE variable (Source: own elaboration)

Looking at the Corporate Social Responsibility theory, this variable can be associated to the to the social dimension. Each firm activity should be planned in consistency with the economic objective but being aware that values and society expectations are always under evolution (Giddings et al., 2002).

The local community began to be considered in the early 1980s, when CSR practices were circulating already for 20 years, with little efforts by companies that gave in cash support or employee volunteering. Then, over years, the nature and the scope of community effort has changed considerably (Burke et al., 1986).

The donation types of this work were decided by the government and they were thought to be applied only to the Art Bonus framework, therefore there is no study stating the level of engagement corresponding to the exact type of endeavour/activity supported. However, it seems reasonable to affirm that type B, with no particular objective but the support of the artistic or cultural endeavour, is comparable to the basic effort of first donations directed to improve social wealth. While types A and C seem to be the step further in the engagement level.

On the other side, it would be possible to consider the variable from the classic financial perspective, suggesting the comparison between the engagement degree with the investment risk. The risk component, usually encapsulated in the interest rate, here finds its maximum representation in the participation level that, despite the possible doubts about the parallelism, it seems reasonable to consider a proxy for ethical risk.

DISTANCE. In contrast to TYPE and AMOUNT, that keep a link with the corporate financial framework, DISTANCE completely relies on CSR assumptions. Starting from artistic and cultural endowments geographical sites and corporations' business places, the variable is set to measure the distance of the endowment funded and the funding company.

A scaling number is created to identify even further geographical distance levels: city, province, region and geographical area (north, centre, south and islands). The index equals 1 if the investment occurred in the same city where the enterprise run its business, 2 if the correspondence occurs at province level, 3 when the same region is considered, 4 if the investment occurred in the same geographical area and 5 if no correspondence occurred.

Even if company financial departments usually do not consider the geographical dimension, it becomes relevant when including ethical issues like the costs and the negative externalities generated by the business and impacting on the surrounding environment.

For this reason, the environmental dimension can be considered as one of the three fundamental pillars on the base of the Art and Culture investment. It could explain one of the increasingly important responsibility sector for the company and its daily environmental-social acceptance (Giddings et al., 2002).

AMOUNT. It is a quantitative continuous variable, reporting the exact amount of the gift.

As anticipated it corresponds to the mere economic aspect of the investment and it plays the same role than in financial investments.

As unique variable perfectly in line with the corporate finance investment theories, the amount can be defined as the opportunity cost of resources used to support the Arts and Culture projects, corresponding to the value that resources would have if committed with their best alternative use (Berk and DeMarzo, 2011). It represents at best the economic dimension, also considering the CSR perspective of sustainable development presented above.

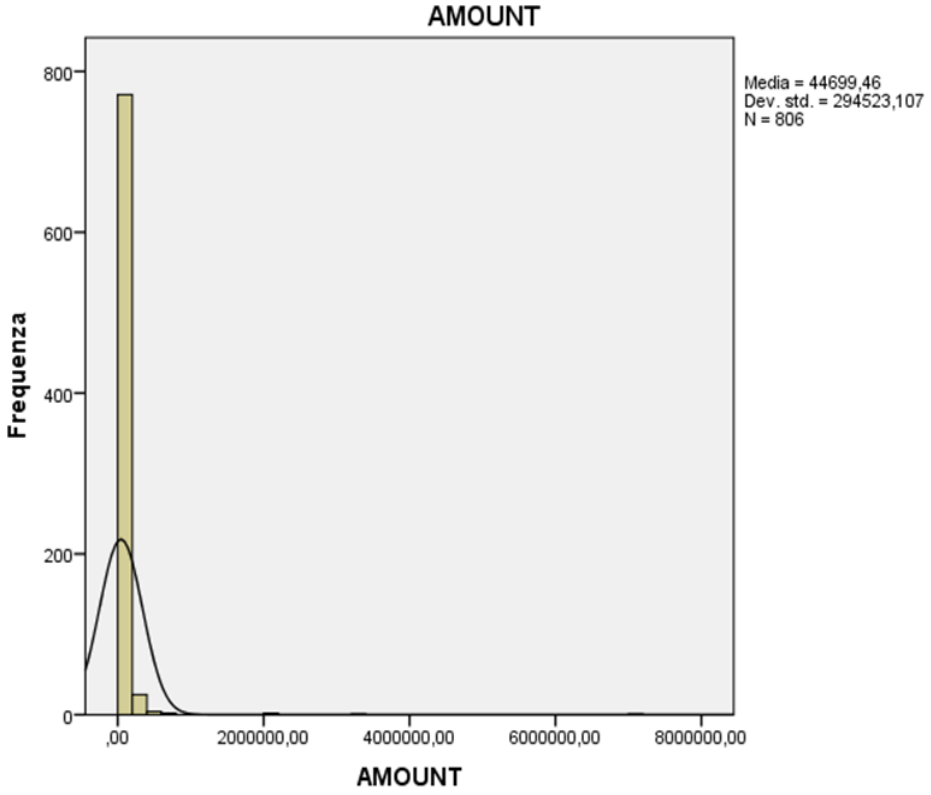


Figure 3.3: AMOUNT variable distribution (Source: SPSS)

In the sample, the 806 observed amounts present an asymmetric distribution: in this case the skew is positive because the right tail is longer and most of the distribution is concentrated on the left side of the graph (*Figure 3.3*). Values confirm the theory because mode (1.000) < median (5.928) < mean (44.699).

Unfortunately, the strong positive skew does not allow the *Figure 3.3* to give an immediate picture of the situation, featuring distribution between €30 and €7.000.000, with high frequencies for small values and very low frequencies for higher amounts.

The increasing distances among values, especially at the right tail of the distribution suggest the presence of outliers that, as for irrelevant variables, can alter the result.

According to Hawkins (1980, in Acuna and Rodriguez, 2004), an observation can be labelled as outlier if it deviates so much from other observations that seems obvious to think that it is moved by different mechanisms. When applied to cluster analysis, outliers can assume two different meaning (Hair, 2010). First, they can be observations that do not truly represent the population or, secondly, they can be a small typical population segment that is poorly represented.

Both the hypothesis can be valid: considering the Art Bonus limitations, it is just as likely that weird amounts observations are either one-time donations without any link to the real giving behavioural schema or a donation style not properly represented because of the limited period data had been gathered.

The doubt about outliers' classification made necessary other analysis, aimed at obtaining a sample not influenced by extreme observations and then clusters that represent properly the population relevant segments.

Detecting outliers is usually considered one of the primal steps while running any kind of analysis, for this reason many tests exist both formal, namely based on statistical principles and distribution assumptions, and informal.

Even if a formal method is usually more desirable, the informal methods are more appropriate with real-world data that do not present a specific distribution, thus the method can be built a perfectly fitting variables' scale or other specific distribution features.

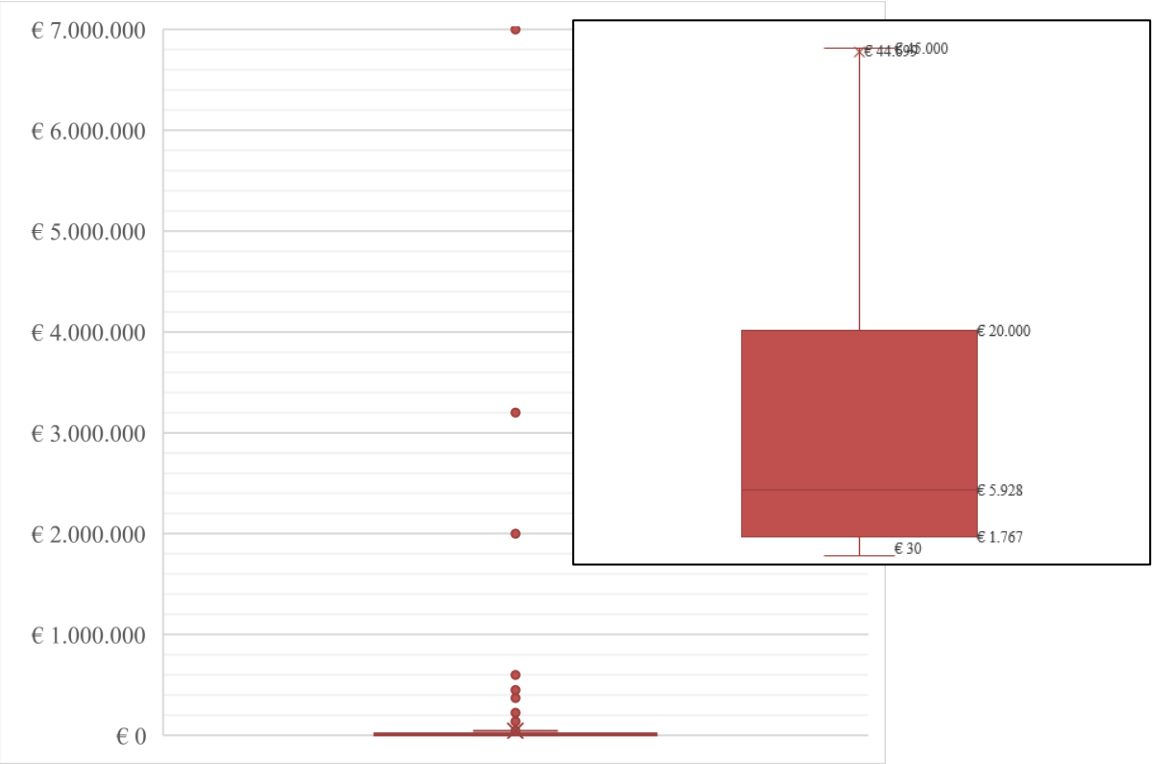


Figure 3.4: AMOUNT variable boxplot distribution

Among the, the most used method for detecting outliers is the Boxplot (*Figure 3.4*): introduced by Tukey (1977, in Acuna and Rodriguez, 2004) as a graphical method in which outliers appear tagged.

In addition to the immediate visual impact, the strength of this method is the link with the well-known quartiles and interquartile range, respectively location and spread measures that do not depend on any distribution assumption.

The lower and higher quartiles, Q0 and Q4 corresponds to the minimum and maximum values of the distributions, in this case expressed by €30 and €7.000.000.

Going more into the distribution, the 25th percentile, also called Q1, and the 75th percentile, also known as Q3, define the boundaries from the most concentrated part of the distribution and those observations that seem to behave in an anomalous way.

The most chose amount range is included between the interval €1.767 - € 20.000, graphically indicated by the full-coloured box. The donation pick, also known as 50th percentile (Q2), is the median value and its value is around €5.928. Its decentralized position, strongly oriented toward the lower values of the distribution, confirms the skewness assumed before.

Cases outside the box are characterized by less frequent observations, and Tukey intuition was to develop a two-sides formula, apt to categorise outliers on the base of their inner odds to be real outliers.

The formula is based on Q1, Q3 and the interquartile range (IQR), the difference between them. By applying a different multiplier to the interquartile range is possible to obtain two fences pairs, inner and outer ones, that respectively narrow with different degrees of conservativeness the two different areas in which outliers are considered.

The first formula is the mildest because it labels as outliers, also called *far out,* only values that are more likely to distort the sample.

[Q1 – 3*IQR; Q3 + 3*IQR]

On the other side, the second formula is more conservative because the lower multiplier gives a stricter limit to the real sample definition. What is placed between the inner and outer fences are considered an *outside*.

[Q1 – 1,5*IQR; Q3 + 1,5*IQR]

Specifically related to the amount variable, observations between the Q1 and the lower whisker, as well as, those placed between Q3 and the upper whisker belongs to outside values category, while values higher than the upper whisker (€ 72.933) are considered far out.

The far-out boundary would cut the sample at 90.9%. Excluding the 9.1% of further values seems to be a reasonable compromise to get a meaningful sample and to cut out outliers with a reliable method.

Once managed the problem of outliers, there is a last issue to be considered is the **multicollinearity**. Since cluster analysis does not distinguish between dependent and independent variables, it is necessarily to test the presence of high correlation between two or more of them (Wooldrige, 2012).

Even if the concept is commonly associated with the regression analysis, high correlation among clustering variables can cause troubles too. Eliminating multicollinearity is important to build an equilibrated analysis and to avoid overweighting one or more underlying independent variables (Ketchen and Shook, 1996).

However, testing for high correlation gave negative results, as shown in the *Table 3.5*, letting for the next step of the cluster analysis.

		Mean	SD	Amount	Distance	Type
1	Amount	11.213,59	14.323,04	1	0,04	-0,086*
2	Distance	1,92	1,20		1	-0,015
3	Type	1,53	0,55			1

* correlation is significant at the 0.05 level (2-tailed)

Table 3.5: Donation variables correlation table (Source: own elaboration of SPSS tables)

The Model: Method, Measure and Variables Scaling

Cluster analysis main objective is creating groups as similar as possible. For this reason, it is important to decide on the criterion to be used for measuring similarity or distance, useful to begin the partitioning process.

WARD METHOD

There are several agglomerative procedures for combining clusters made available by SPSS software, which differ one another because of the mathematical algorithm used to compute distance between groups. Among others, the one chose for measuring proximities in this sample is Ward method, that is one-of-a-kind because it does not use a single similarity measure to get the distance between variables, but it is based on the sum of squares within the clusters summed over all variables.

Unlike the other algorithms, that merge groups presenting the minimum distance among them, Ward method computes the clusters' means and groups clusters that minimize within-group dispersion at each binary fusion, for this reason it is also known as variance method (Murtagh and Legendre, 2014).

In general, this method is very efficient because it tends to generate homogeneous and roughly equilibrated clusters, however the solutions produced may be highly distorted by the impact of outliers. Given this tendency, Ward Method reliability can be restored by matching the method with other structural data set precautions, like the already described outliers' detection, together with the right similarity measure and variables scale.

MINKOWSKI MEASURE, AN EUCLIDEAN GENERALIZATION

Ward Method is usually associated to the squared Euclidean distance default measure, that is not particularly adapt to this model because it tends to exacerbate already high distance values, thus weighting more outliers than the remaining part of the sample.

Despite the sample has been already reduced by 10% to avoid outliers impact, at this level of the analysis it is necessary to take some precaution as well. Indeed, eliminating the far away observations cannot be enough to solve the outliers' problem because of the sample strong positive skew. At this purpose, other measures can be evaluated on the base of variables involved, even bearing in mind the strong link between Ward method and squared Euclidean measure.

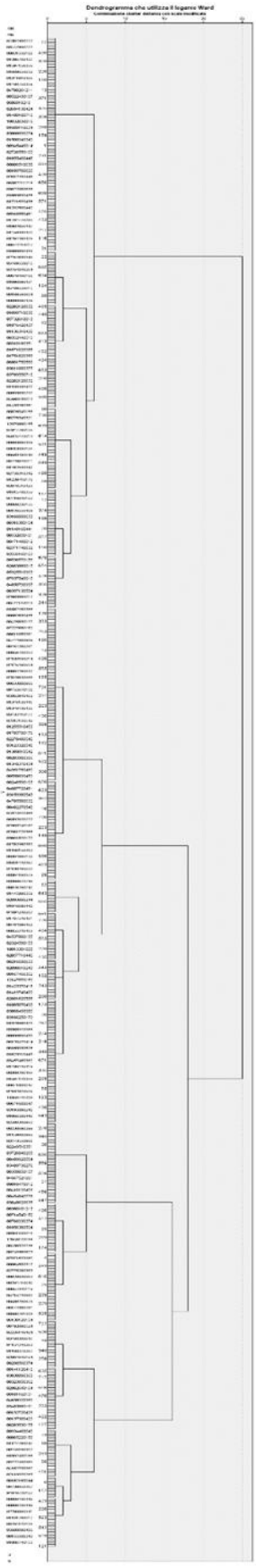
Once determined that all the variables involved are quantitative, the bunch size of measures to choose from is reduced and the focus can be addressed to Minkowski distance, because, being the generalization of squared Euclidean measure, it can be considered the foundation stone and starting point of our measure selection process.

Theory teaches that the formula is the same for all the measures family and what differentiate the measures is the value of exponent. In particular the first two measures turn to be the most used:

Exp. = 1	Manhattan or City-block measure
Exp. = 2	Euclidean measure

By applying the rule stating that the higher the exponent, the higher the risk to face again the outliers challenge, the choice should be directed toward Manhattan or City-block distances as the least suffering for outliers' influence.

However, choosing the exponent equal to 2 is considered to be the best compromise between the outliers' detection and the preservation of the link Ward method-Euclidean measure; supported by the fact that many scholars still argues that Ward method is to use only with Euclidean distances (Vogt W, Nagel D, 1992; Rencher Ac, 2002; Nandi AK, Fa R, Abu-Jamous B, 2015



in Strauss and von Maltitz, 2017), while others (Miyamoto et al., 2015 in Strauss and von Maltitz, 2017) are convinced that this method had been built on the Euclidean distance.

Even if Minkowski distances are simple to calculate, they have a drawback: they may lead to misrepresenting results if the variables are highly correlated (Hair et al., 2010). However, the correlation test is negative, as shown before, so the potential menace is overcome.

VARIABLE SCALING

As explained with close focus on the method, cluster analysis groups elements such that the distance between groups is maximized while distance within cases belonging to the same group is minimized. This implies that it is more likely that a subset of variables, characterized by large value ranges, impacts more in defining a cluster solution than those with small value ranges (Hair et al., 1992 in Ketchen and Shook, 1996). This is the case of donation *amount*, object *type* and geographical *distance*, that are variables with very different metrics.

In addition to the *amount* outliers' detection and the choice of Mikowski specific method, also setting variables at the same distribution can help.

The choice was limited to two interesting options. The first one, also known as z-score standardization, rescale the sample variables to benefit from the properties typical of a standard normal distribution: mean and standard deviation respectively equal to 0 and 1. The alternative approach would be the min-max scaling, also known as normalization, that scales the variables within the fix range 0-1.

Even if both the processes allow variables to contribute equally to the definition of clusters and, min-max scaling gives the additional benefit of suppressing the anomalous effects of outliers thanks to smaller standard deviations. Given the already mentioned strong presence of outliers over the *amount* variable, this option would be tempting; however, it is alto to bear in mind the meaningful differences among elements it may

Figure 3.5: Cluster analysis dendrogram (Source: SPSS)

also eliminate (Edelbrock, 1979 in Ketchen and Shook, 1996). For this reason, standardization had been selected to catch all the possible comparable similarities between features based on distance measures.

NUMBER OF CLUSTERS

At the end, there is also to determine the optimal number of clusters in the final solution to give a full representation of observed cases without complicating the grouping structure. Despite there is not intrinsic statistical criteria as stopping rule, the hierarchical clustering theoretical bases can be used to validate clusters number.

The fundamental concept recalled for deciding upon the stopping rule is the heterogeneity. As already introduced, the aim of the analysis is to create relatively homogeneous groups: the greater homogeneity degree within groups characterises the initial situation, in which each observation is considered a cluster itself, while, it gets lower as the number of clusters increase. As recalled by Hair et al. (2010), heterogeneity measures the diversity among observations belonging to the same cluster and the percentage change is one of the simplest and widespread way to measure it. Using the agglomeration coefficient provided by SPSS, that measures heterogeneity, as distance at which clusters are formed, it is possible to calculate for each cluster solution the related percentage increase: the optimal number of cluster occurs at the higher percentage increase, since it is indicator of clear and distinctive groups.

Typically, the higher heterogeneity coefficients gap is measured in the two-cluster solution in which the two groups are necessarily clearly defined, as demonstrated graphically by the dendrogram (*Figure 3.5*) and by the coefficients agglomeration schedule (*Figure 3.6*) that underlines also the percentage gap. However, many times it is not considered able to represent the full scenario, so it is set aside.

For this specific case, if the two-cluster solution is not taken into consideration and solutions with more than five clusters have to be rejected because of very similar coefficient gaps, the attention ends up being focused on the shifts between five to four-clusters solutions (+22%) and between four to three-clusters solutions (+21%).

Numbers do not present markedly larger percentage increases and, as consequence, all the three solutions can be considered potentially valid.

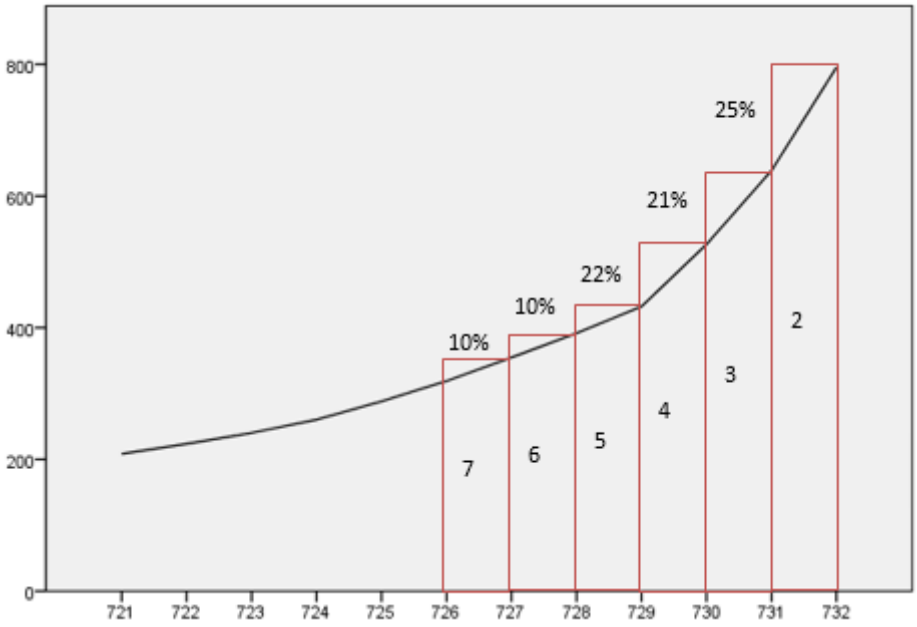


Figure 3.6: Coefficient agglomeration schedule (Source: own elaboration of SPSS table)

However, even if it cannot be considered statistically relevant, the one percentage point gap makes the difference and pilots the choice toward four-cluster solution, that is visually supported by the slight slope change in the coefficient agglomeration schedule (*Figure 3.6*).

Despite this four-cluster solution preference, there is the need for qualitative considerations, related to the aim of the research, to clearly define the most appropriate solution.

Before going on with the four-cluster solution, a qualitative analysis is necessary to be sure about the cluster choice. A little insight dedicated to each potential cluster solution gives evidence of variables' average values and thus, gives an idea of what philanthropic investment style is represented by each cluster.

Since the subjective observation of average values can lead to misunderstanding, for each cluster solution the one-way ANOVA test is conducted.

ANOVA is an acronym that stands for **An**alysis **O**f **Va**riance, and it is a statistical technique for testing whether different clusters' variables have different means. By running this test, researchers refer to the null hypothesis if all the means are equals versus the alternative hypothesis stating that a couple of means is statistically different. Because of very low p-value for each of the three possible solutions, it is possible to reject the null hypothesis and affirm that at least one couple of means is statistically significant (*Appendix A*).

Then, the assessment of the statistically different means is made by post-hoc test, that can be based on different method procedures. The most popular is LSD procedure, that keeps under control the Comparisonwise Error related to each single comparison but, being the least conservative, it is more likely to make the overall Type I error. For this reason, it has been used also Bonferroni's procedure, that should be considered more reliable because of its adjusted significance level, and thus, more conservative (IBM).

FIVE-CLUSTER SOLUTION					
	CL. 1	CL. 2	CL. 3	CL.4	CL.5
No cases	278	132	96	109	118
Amount	€ 9.202,35 (9.239,46)	€ 3.736,4* (3.405,44)	€ 5.440* (5.851,63)	€ 37.792,72 (15.217,22)	€ 4.462,55* (4.762,98)
Distance	1,47 (0,622)	1,00 (0,000)	4,28 (0,764)	1,81 (1,198)	2,17 (0,528)
Type	1 (0,000)	2 (0,000)	1,43 (0,538)	1,73 (0,44)	2,14 (0,344)

Table 3.6: *Five-Clusters solution (Mean value for each variable. Standard Deviation in parenthesis. *Clusters significantly different at 0.05 level).*

FOUR-CLUSTER SOLUTION				
	CL. 1	CL. 2	CL. 3	CL.4
No cases	278	250	96	109
Amount	€ 9.202,35 (9.239,46)	€ 4.079* (4.110,05)	€ 5.440* (5.851,63)	€ 37.792 (15.217,22)
Distance	1,48* (0,623)	1,55* (0,688)	4,28 (0,764)	1,81 (1,198)
Type	1,00 (0,000)	2,06 (0,245)	1,43 (0,538)	1,73 (0,444)

Table 3.7: *Four-Clusters solution (Mean value for each variable. Standard Deviation in parenthesis. *Clusters significantly different at 0.05 level).*

THREE-CLUSTER SOLUTION			
	CL. 1	CL. 2	CL. 3
No cases	278	250	205
Amount	€ 9.202,35 (9.239,46)	€ 4.079* (4.110,05)	€ 22.642 (20.010,96)
Distance	1,48* (0,623)	1,55* (0,688)	2,97 (1,601)
Type	1,00 (0,000)	2,06 (0,245)	1,59 (0,512)

*Table 3.8: Three-Clusters solution (Mean value for each variable. Standard Deviation in parenthesis. *Clusters significantly different at 0.05 level).*

Actually, the results are the same for both the methods, confirming the equal mean values at a significance level of 0,05 as those marked by the stars in the below tables *(Tables 3.6, 3.7, 3.8)*, summarizing the whole database solution (*Appendix B*).

Increasing the number of clusters does not necessarily mean having a more detailed solution, sometimes it can happen that many similarities occurs among clusters and this split is not necessary.

In the five-cluster solution, the average amounts of clusters two, three and five are low and so similar that they are not considered statistically different by the software. The other values, both for distance and for type have all different means, but the similarities between the distances of cluster one and four, or clusters two and five types underline a data redundancy.

Going on with the agglomerative process, cluster 2 and 5 merge together by the similar amount and type values. In this case, the statistically similar amounts end to be only those of cluster two and three, but distances of clusters 1 and 2 are added to the category. Nevertheless, the redundancy problem is limited and well-defined profiles seems to emerge.

Merging again, the previous three and four are now a unique new cluster. The variable that benefits from this merge is type, because of the already similar value, but both the amount and the distance assume average values, flattening the meaningful differences among them. For this reason, this last cluster solution is not considered optimal and it is rejected.

Cluster solutions: the profiles

Even qualitative analysis directs the choice toward four-cluster solution, that is the optimal sample split to represent the different investment cases and to set the basis for the further regression.

Before going on with the analysis, it could be interesting to better understand the four clusters and their variable peculiarity.

The most crowded clusters are Cluster 1 and Cluster 2, but this is not the sole common point: both types of investors prefer supporting artistic and cultural endeavours placed in the nearby, for instance, they chose the same city and province. However, they differ for the amount and type. Cluster 1 observations record an average amount higher than the median, while observations in Cluster 2 are characterized by the lowest average amount if compared to the other clusters. Concerning the type, the difference between Cluster 1 and Cluster 2 investments seem to substantial: investors of Cluster 2, on average, chose to direct money to maintenance and creation interventions rather than the generic support and thus they turn out to be more engaged.

Since they are the most crowded clusters, with respectively 278 and 250 observations, they represent slightly more than 70% of the sample and it can be states that they represent the most popular investment styles.

Cluster 3 is the smallest. It encloses only 96 cases that have a peculiarity about distance variable: the high score suggests that Cluster 3 donors chose to subsidise artistic and cultural endeavours that are not located in the same place where the enterprise run its business, on the contrary, the two entities are located in the same geographical area (north, centre, south and islands) or further. Concerning the other two variables, Cluster 3 records a moderately low average amount, similar to that of Cluster 2, and subsidize, on average, both generic supportive and maintenance activities, with a medium-low degree of engagement.

The final cluster, Cluster 4, is slightly crowder than the previous one, but its specificity is the amount: the average amount is very high and this may lead to think that this is the cluster of donors who made those extremely high donations that survived after the outliers' detection. The works of the Arts and Culture supported are located mainly in the same province, and typically maintenance interventions are directed to them, activities with a medium degree of involvement.

Further considerations may lead to affirm that, in addition to Cluster 4, that is completely different form the other three, clusters from 1 to 3 represent alternatives to the same investment style.

Cluster 2 can be considered the starting point, as it is the one presenting more statistical mean similarities with the other two, to state that the most common investment profile is characterized by low amounts dedicated to philantropy, donors who prefer to have the home court advantage for choosing which arts and cultural works to support and, because of this, more willingness to be engaged and involved, by committing their money to specific supporting activities rather than a generic financial aid. Nevertheless, even this latter characteristic is validly represented in one of the remaining clusters: Cluster 1 donors combine higher, but not excessive, amount of money to lower involvement; still keeping on investing in the same neighbouring area.

On the contrary, similarly low amounts, like in Cluster 2, occurred in Cluster 3 cases that recorded higher investment distances, removing any link with the emotional territorial proximity, and an engagement level in the middle between the two extremes analysed before.

3.3.3 Research question #2: Determinants of the investment profiles

After the identification of the clusters that best represent the investment taxonomies, the research scope broadens to include corporate dimensions. So that the aim of the second part of the research is answering to the question: *What are the enterprises features, either organizational, behavioural, industrial and financial, determining the investment decision and predicting the different investing styles?*

The statistical instrument apt for analysing the determinants of the investment profiles is the Multinomial Logistic Regression, a technique usually considered an extension of binary model and used to predict a nominal dependent variable containing two than more categories with no natural orders. One or more independent variables are given (Hosmer and Lemeshow 2000, Liao 1994, Menard 2002; Theil 1969, 1970 in Denham, 2016).

In this specific case, the not-ordered nominal variables are the four profiles found with the cluster analysis, while the several different independent variables that are expected to predict the investing styles are the corporate features. As with other types of regression, multinomial logistic regression can have nominal and/or continuous independent variables as well as interactions between independent variables are expected to predict the dependent variable. However,

there are some limits that require a little more effort to the analysis but, if met, they allow to get valid results from the model. Those six assumptions are:

1) DEPENDENT VARIABLE. The dependent variable should be a categorical nominal variable, with no natural order
2) INDEPENDENT VARIABLES. The independent variables can be continuous, both nominal and ordinal. However, if they are ordinal independent variables must be treated as being either continuous or categorical.
3) INDEPENDENCE. Both the independent and the dependent variables should be classified in mutually exclusive and exhaustive categories.
4) NO MULTICOLLINEARTIY. Two or more independent variables cannot present highly correlation with each other. If present, there could be problems to define the variables that mostly impact and contributes to the dependent variable.
5) LINEAR RELATIONSHIP. There must be a linear relationship between any continuous independent variables and the logit transformation of the dependent variable.
6) NO OUTLIERS. There should be no outliers, high leverage values or highly influential points.

Independent variables

Many enterprises' characteristics are potentially determinants of investment profiles (*Table 3.26*). In the following section, a short paragraph is dedicated to explaining each firm characteristic considered in the analysis. The choice of the determinants is based on the literature and on the availability of the data. Since even this second research question has explorative nature, we do not build any prior hypothesis concerning the expected effect of the determinants on the dependent variable.

Firm Characteristic and Behavioural Variables

SIZE. Company size is considered one of the most important factor able to predict company behaviours thanks to the multiple interpretation it is subjected to.

Over years, many scholars demonstrated that larger enterprises, provide higher contributions irrespective of the positive or negative financial results, even if the explanation of this phenomenon is composite.

Useem (1988) and Roberts (1992, in Adams and Hardwick, 1996) underlined how larger companies are more politically exposed and they are required to elevate the professionalism level. As reported by organizational theory, larger organizations realize it by mean of improved and more structured management architectures that facilitate formal CSR programs (Donaldson, 2001 in Brammer and Millington, 2006).

Other authors (Watts and Zimmerman, 1978; Belkaoui and Karpik, 1988; in Adams and Hardwick, 1996; Fombrun and Shanley, 1990) shift the focus on the compliance framework by leveraging the same political visibility idea. Being a larger firm increases the probability to be scrutinized from the general public and government bodies: the bigger the company, the more information it is required to disclose during the audit sessions. For this reason, authors believe that higher discretionary donation would be determinant to avoid additional fees imposed by government.

In addition, corporate size is used as proxy for many other corporate features concerning the structural aspect of the firm. Most known economic interpretation are those of Ball and Foster (1982, in Adams and Hardwick, 1996), that uses company size as proxy of economies of scale and competitive advantage for improving social performance. While Bowen (2000, in Brammer and Millington, 2006) and Orlitzky (2001, in Brammer and Millington, 2006) associate this variable to the company ability to have access to a greater number of attractive investments and, thus, more resources.

Given the high variety of interpretations, this research would include different measures of company size to catch all the trends.

As taught by Arulampalam and Stoneman (1995), Leclair and Gordon (2000) one of the measures for company size is given by the number of employees, here referred to LOGEMP, whose data is gathered the year before the donation and then logged to eliminate the distortive effect of outliers.

Alternatively, authors proposed financial measures.

It is the case of sales revenues, as suggested by Williams and Barrett (2000) that use an average measure of those data gathered in a limited years period; or by Galaskiewicz (1997) that makes a further step by matching the sales variable with the belonging industry.

Income is probably the most popular measure for company size: Schwartz (1968) used it to underline the functional time relationship with donations, both current and previous dimensions

as usually employed for investment analysis; followed by Brammer and Millington (2004) that chose the previous-year profits.

Others refer to the pre-tax profit measure to take into account the tax relief given by deduction (Arulampalam and Stoneman, 1995). Otherwise, as occurred for revenues, profits can be used to assess the correlation with the industry performance (Leclair and Gordon, 2000).

At the end, total asset is the last well-known used to monitor the corporate size. Usually they are measured as the market value of total assets recorded at the end of the year (Adams and Hardwick, 1998, Carrol and Joulfaian, 2005) but, sometimes, its logarithm form is considered instead to reduce the impact of extreme values and heteroscedasticity (Brammer and Millington, 2004, 2006; Brammer et. al, 2008).

In this research, as for the number of employees, either sales revenues (LOGREV) and total assets (LOGASS) data are gathered at the year before the donation occurred under the assumption that business plans, including charitable investments, are defined at least one year before. In addition, these variables are logged to avoid the negative impact of very spread observations.

	Mean	SD	Min	Max
LOGEMP	4,03	1,88	0,00	10,69
LOGREV	16,35	2,25	7,70	23,30
LOGASS	16,74	2,57	8,66	26,71

Table 3.9: SIZE variable dimensions

The choice to consider profits instead of pre-tax profits, as the American examples, is due to the fact that, as deepen in Chapter 2, taxes do not impact donations in Italy because of the different tax relief norm. Accounting for this dimension turns to be unnecessarily but, in its place, revenues may become significant since they determine the donation maximum ceiling.

Irrespective of the measure used to account for the company size, all the authors yield to the same result: company size is expected to be positively related to charitable contributions. Despite they found that, in the majority of cases, the relationship is directly proportional and equal to one, nobody has been able to provide the extent of this positive relationship (Brammer and Millington, 2004). This would suggest that company dimension and visibility is not so determinant of giving, and this research will provide an answer about this issue also for the Italian scenario. Some descriptive statistics of the variables related with the size of the company are provided below.

AGE. As slightly introduced above, most of the times, the business life cycle stage achieved by the firm is a variable considered either included within considerations on size or, rarely, separately. The link between the two is the fact that once the company is in its maturity phase, in which it is also supposed to have reached a significant size, it becomes more likely to take advantage form attractive alternative investments (Bowen 2000, Orlitzky 2001; in Brammer and Millington, 2006). The great availability of resources allows mature firm to address part of the resources to charity. Despite many authors uses only size as proxy for maturity, following Galaskiewicz example (1997), age dimension is made explicit with the variable AGE and it is calculated from the company birth until the year before the donation. The result is a continuous variable ranging from 0 to 188.

	Mean	SD	Min	Max
AGE	29,31	23,86	0	188

Table 3.10: AGE variable

JURIDICAL FORM. As anticipated in the sample description, the information availability is restricted to limited companies and cooperatives, while partnerships are excluded. This is a drawback but, at the same time, it allows to obtain the simplified dichotomic variable TYPE that is equal to 1 if the donor is a limited company and 0 otherwise - when it is a cooperative society or a consortium.

Juridical form			
	Code	No	% No
Limited Companies	1	677	92%
Otherwise	0	56	8%
Total		733	100%

Table 3.11: TYPE variable frequencies

Despite this sample does not include all the existing juridical form types, preventing any complete comparison, it could be interesting to understand the different ways in which limited companies and cooperatives impact the Arts and Culture investing decision.

Social cooperatives emerged in the European scenario during the last 25 years and they became instrumental for the expansion of the social economy in Italy. They have a mutualized institutional purpose that can be summarized in 8 principles “internal mutuality; external mutuality; non-profit distribution; participation; representativity; accessibility; intergenerational solidarity; and intercooperative solidarity” (Thomas, 2004). Their purpose is strictly tied with their

primary aim of meeting society needs and enhancing society wealth, as it is expected to occur in case of the Arts and Culture support, instead of achieving the highest ROI.
On the other side, limited company juridical form can be relevant if linked to the shareholder value concept. Limited companies structure is more complex than that of cooperative societies, especially for the role of shareholders. Shares' owners have the right of participating on company's profits and on company's control decisions so that the management should undertake business activities enhancing shareholder value as investing in the Arts and Culture projects.
As underlined by many studies as the one proposed by Godfrey (2005 in Gautier and Pache, 2015) and Patten (2007, in Gautier and Pache, 2015) there is a statistically positive relationship between the donation and the stock value during the days after press releases announced the gift, supporting the thesis that the juridical form somehow justify those kinds of investments.

LOCATION. Talking about environmental pressure usually means referring to negative externalities produced by the company and negatively affecting the neighbouring community.
However, this is not completely correct because environmental issue should be referred to all the potential environmental risks related to various pressure groups that can affect the company result in different ways, including positive ones.
The label "ARTISTICREGION" represents exactly the positive side of environmental issues because it is not just a geographical variable. Given the available details of the city, province, region and geographical area where the company run its business, it become interesting to know if the number of cultural and artistic sites in the neighbourhood is relevant to predict corporations' investment styles. For this reason, the total number of cultural and artistic endeavours supplied by ISTAT - museum and galleries, archaeological parks and monumental complexes – is took into consideration as a categorical variable.

ARTISTIC REGION						
	Museum and Galleries	Archaeological Parks	Monumental Complexes	Total	No	% No
Lombardia	361	19	29	409	169	21%
Emilia-Romagna	427	8	42	477	161	20%
Marche	304	15	27	346	109	14%
Piemonte	362	6	59	427	72	9%
Toscana	446	21	81	548	70	9%
Veneto	290	3	22	315	65	8%
Liguria	202	2	13	217	40	5%
Campania	160	24	35	219	33	4%
Lazio	281	30	37	348	28	3%
Umbria	140	9	27	176	17	2%
Friuli-Venezia Giulia	162	9	14	185	12	1%
Puglia	128	7	18	153	11	1%
Sicilia	175	42	40	257	10	1%
Abruzzo	102	7	12	121	4	0%
Sardegna	166	50	32	248	2	0%
Trentino-Alto Adige	163	6	20	189	2	0%
Calabria	155	8	9	172	1	0%
Valle d'Aosta	68	5	11	84	0	0%
Basilicata	37	5	1	43	0	0%
Molise	29	6	7	42	0	0%
Total					806	100%

Table 3.12: *ARTISTICREGION variable frequencies (Source: own elaboration of ISTAT.it data)*

INDUSTRY. Early studies (Arulampalam and Stoneman, 1995; Brammer and Millington, 2004, 2006; Brammer, Pavelin, Porter, 2008; Carrol and Joulfaian, 2005; Leclair and Gordon, 2000; Schwartz, 1968) proposed several dummy variables with a pure explorative aim: one dummy for each industry sector, or macro sector, would help researchers that want to analyse with a wide focus. However, using wider and comprehensive categories would rise the risk of losing the detail, and this is the reason why this research proposes only two dummies that deepen two different but interesting industry aspects, that share the company visibility factor.

As anticipated in the geographical variable, the other and broader side of environmental issue assumes that the Arts and Culture investment is motivated by the instinct of surviving to all the stakeholders' pressures for social responsibility practices (Brammer and Millington, 2006). Pressures, from both inside and outside the company, are many and varied but some of them are better known because of the high frequency they are likely to occur. Regulatory issues, as non-compliance and violation of norms concerning processes and non-renewable resources used, emission levels and energy consumption (Halme and Huse, 1996) are the most common situation arising from the productive side, while criminal activities are risks faced at organizational and managerial side (Henriques and Sadorsky, 1996). Obviously, the environmental issue is expected to vary between firms with different visibility concerns or, in other words, belonging to different industry sectors: the higher the socially and environmentally damaging externalities that the firm generates, the higher the attention toward compensating CSR activities (Halme and Huse, 1996).

Following the approach proposed by the two authors, deepen also by Brammer and Millington (2004), one of the two dummy variables classifies industry on the base of their social and environmental impact.

Particularly in the last 20 years the government attention to the social and environmental issue led to a massive increase in legislative actions and additional regulations to encourage the responsible and ethic companies' behaviour (HMSO, 1999, 2001; in Brammer and Millington, 2004). The sectors in which central institutions are focusing their attentions are the same that several authors have been already argued about over years, and this research would include all of them, in order to get the most general and updated version.

The ATECO code, specifically the capital letter category and the first two digits of the code, helped to identify the industry sectors (*Appendix C*) with meaningful local environmental or social impact as those listed by Halme and Huse (1996) and the modified version proposed by Bowen (2001; in Brammer and Millington, 2004) that added tobacco and alcoholic beverages producers to the already cited chemical, electric utility, pulp, paper and metal industries.

The split between the selected industry sectors and those that does not produce negative externalities make possible the creation of the SOCENVIMPACT dummy variable: code 1 pinpoints the impacting sectors while 0 is used to group all the other business activities.

Industry sector (SOCENVIMPACT)			
	Code	No	% No
Negative externalities	1	96	13%
Otherwise	0	637	87%
Total		733	100%

Table 3.13: Industry dimension - SOCENVIMPACT variable frequencies

Indeed, the other dummy variable distinguishes companies according to the focus on consumer level. Borrowing the same approach from authors (Lovio et al., 1993; Ytterhus, 1993; in Halme and Huse, 1996; Robertson and Nicholson, 1996 in Brammer and Millington, 2004) that based their corporate environmental management studies in this split, SERVICES identify with the code 1 all the companies whose business is classified as service (*Appendix C*), while 0 stands for all the other cases, mainly manufacturing and B2B companies.

Industry sector (SERVICES)			
	Code	No	% No
Services sector	1	388	53%
Otherwise	0	345	47%
Total		733	100%

Table 3.14: Industry dimension – SERVICES variable frequencies

REPUTATION. The last variable in this category is the one that does not allow to identify the group as "structural" variables, instead it is more correct referring to them generically to firm characteristics variables.

The willingness to identify a specific and direct variable for firm visibility rather than relying on substitute variables, that ensure only indirect assumption and conjectures on it, led to create a dedicated variable that includes CRS practices at 360°.

In effect, if environmental pressures are faced at geographical level by assessing the regional artistic degree, as negative social and environmental externality for investigating the industry dimension, here it is considered at its broader meaning since there is evidence that a firm's propensities to give to charity may be influenced also by its overall reputation (Williams, 2003). The marketing side of this variable is given by the fact that brand reputation influences the firm appreciation by final customers, important part of company stakeholders.

Each company should manage all the aspects of the business, and all the coming out information related to them, to be not only present in the consumers mind but also trying to generate loyalty, attachment, engagement or, at least, positive feelings (Keller, 2001; in Kotler et al., 2012). The impossibility to recover marketing expenses used for visibility purposes from the balance statement, since they are included in the research and development expenses item and the detail is hardly ever available, led to explore other mechanisms able to express the marketing data.
This is the way variable REPUTATION was born, whose data are those made available by the Reputation Institute that yearly produce a reputational insight at both global and national level. Like the approach used by Williams and Barrett (2000), the dimensions investigated and integrated in the measure are seven, each of them supported by detailed subdimensions as here summarized:

1. Products & services – quality and value for money of the offering that results to meet consumers need
2. Innovation – ability to adapt to rapid environmental changes and to be the first in the market
3. Workplace – concerns and fair rewards to employees
4. Governance – ethicality and fairness in running the business
5. Citizenship – positive influence on social and environmental causes
6. Leadership – active and strong leader with a clear vision of the future
7. Performance – financial results exceeding expectation and growth oriented

REPUTATION			
	Code	No	% No
Global/Italian reputation	1	31	4%
Otherwise	0	702	96%
Total		733	100%

Table 3.15: REPUTATION variable frequencies

The variable is a dummy variable that associate to 1 the donors whose name also appears in the 2018 Global and Italian RepTrack, namely the Global Top100 (*Figure 3.7*) and the Italian Top150 (*Figure 3.8*) reputational ranking. The results are not sizable because only 31 out of

733 firms are present in the list, but it could be relevant for predicting the investing behaviour as well.

Figure 3.7: *Top100 Global RepTrack 2018 (Source: reputationinstitute.com)*

Figure 3.8: *Top150 Italian RepTrack 2018 (Source: reputationinstitute.com)*

INVESTMENT PATTERN. The last variable of the first group concerns the company investing behaviour, referring to the choice of the firms that invested many times.

The interesting assumption on the base of multiple investments within of Art Bonus framework is the high reliability they have for managers that choose to include them within their business strategy (Saiia, 2003).

The variable referred as MULTIPLE, is a dummy variable that associate the code 1 to the multiple investment and 0 if the companies participated just once during the four-year period considered by the sample.

INVESTMENT PATTERN			
	Code	No	% No
Single	0	570	78%
Multiple	1	163	22%
Total		733	100%

Table 3.16: MULTIPLE variable frequencies

Ownership and Control Variables

LIST. During the assessment of the ownership and the control, it is necessary to verify if the examined company is a publicly or privately held company.

A public company have sold part or the totality of its ownership to several shareholders by mean of an IPO. For this reason, it is required to disclose managerial and financial information but, as positive effect, it can raise capital and new resources easily.

On the other side, in private companies, especially the smallest ones, the owner, the manager and the founder's roles correspond. The unit of purpose, clear strategy and unambiguous mission should be the strength of private companies, that are not obliged to disclose the large bunch of information as required by the stock exchange. However, being more autonomous in the market might limit the access to financial resources.

It would be easy to state that public companies are more likely to donate thanks to the greater availability of financial resources and because of the pressure groups high influence. Nonetheless, the question is the probable influence that listed or not listed companies can have on a specific kind of investment. Therefore, the dedicated dummy variable LIST associates the code 1 to those listed companies, while 0 for the remaining companies.

PROPERTY			
	Code	No	% No
Public	1	19	3%
Private	0	714	97%
Total		733	100%

Table 3.17: LIST variable frequencies

ULTIMATE OWNER or MAJORITY SHAREHOLDER. In order of importance given by early studies, the second place of the podium is taken by top management issue (Useem, 1988), here treated in a broader sense because of the typical Italian firms' size and structure.
Earlier studies, based on the American companies that are usually characterized by a dispersed property, are used to state that the less the ownership is concentrated, the more the manager can act with discretion, therefore maximising their own reputation in the society and in the labour market, at the expense of the shareholders' interests (Adams and Hardwick; 1998).
Hence, most of research found out that cases in which the there is a single owner, donations are less likely to occur because of the limited possibility to decide on its own interests.

ENTERPRISES SIZE		
	No	% No
Large	143	20%
Medium-Sized	206	28%
Small	223	30%
Micro	161	22%
Total	733	100%

Table 3.18: Enterprise size frequencies

However, Galaskeiwicz (1997), that studied CEO stock ownership impact on contribution level, bypassed the typical agency theory issue by suggesting shareholders as principals and employees as agents, since they have little or no stocks in the company. Given the typically Italian enterprises conformation, reflected by the sample that recorded 80% of small-medium enterprises[2] (*Table 3.18*), it is reasonable to assume an informal managerial structure and, the most of cases, the overlap between the owner and manager roles and interests.
This reverse the results because what was considered less likely to occur before, now it is considered an essential condition for giving.

Ownership of corporations is determined in this study by recording the owner status and nationality if the enterprise is independent while, if the company belongs to a group, the same data are considered with reference to the ultimate owner that is the shareholder with the highest direct or total percentage of ownership.
Concerning the donor subject, *Table 3.19* underline that enterprises donating under Art Bonus conditions are mainly under control of single individuals or families (53%) and Corporate Companies (31%), so that these two became potentially predictive variables: INDIVIDUAL dummy variable denotes all company whose owner is an individual with code 1 and 0 otherwise; while

[2] Categorization on the base of the *staff headcount* and *turnover* or *balance sheet total* factors introduced with the EU recommendation 2003/361

CORPORATION is the dummy variable that identify as 1 all the companies owned by a corporation.

OWNER STATUS			
	Description	No	% No
A	Insurance companies	6	1%
B	Bank	26	4%
C	Corporate companies	230	31%
E	Mutual & Pension Fund	8	1%
F	Financial company	42	6%
I	Individuals/families	391	53%
J	Foundation/Research Institute	2	0%
S	State/government	22	3%
n.a.		6	1%
Total		733	100%

Table 3.19: Owner status frequencies

Due to the great number of studies concerning charitable investments associated to financial institutions' willingness of portfolio investment diversification, also a third variable is taken into consideration. It groups together A, B and F categories under the same label FINANCIAL: it is a dummy variable that associates 1 to the indicated firms and 0 otherwise.

The last variable about owner features is ORIGIN, a dummy variable that identifies with code 1 the owner Italian origin while 0 stands for all the stranger owners. This variable is based on Galaskeiwicz research (1997), that founded a link between the CEO birthplace and giving, and Useem results (1991; in Galaskeiwicz, 1997) underlying the CEO's personal ties to local philanthropic activities. Also for this variable is assumed the overlapping between the ownership and control, allowing to refer to the ultimate owner instead of the CEO; however, the impossibility of get detailed information about the birthplace unless nationality led to this long-rage variable. In addition to Italy, the other states represented in the sample are Germany, France, Switzerland, UK, Sweden, Luxemburg, Lichtenstein, Netherland, Denmark and Ireland for Western Europe (4%), United States (1%) and concerning the Eastern area (1%) there are Japan,

Russia and Sri Lanka; all grouped within the "Foreigners" category in *Table 3.20.* Foreign ownership is not expected to affect giving in terms of taxes advantages but it is reasonable to assume different approaches to the charitable investment due to a more international profile opposed to local oriented one.

OWNER NATIONALITY		
	No	% No
Italian	687	94%
Foreigners	41	6%
n.a.	5	1%
Total	733	100%

Table 3.20: ORIGIN variable frequencies

STATE PARTICIPATION. The role of the State can be considered a specification of ownership status discussed before, that need for a dedicated argumentation. The fact that all the endeavours proposed within the Art Bonus sustain program are owned by the Italian State may lead to think that first, there would be a massive contribution by firms that are owned by the central government at least partially, and then that those kinds of company have a peculiar investing style is compared with the one of firms with no State influence. The variable, named STATEPARTICIPATION is a continuous variable that indicate the percentage in which the State is present in the company property. Obviously, cases reporting a positive percentage greater than zero correspond to those that reported "S" code at the Owner Status item.

	Mean	SD	Min	Max
STATE PARTICIPATION	2,76	14,84	0	100

Table 3.21: STATEPARTICIPATION variable

GROUP. The distinction between independent firms and those belonging to a group can be deepen any longer. In effect, a group behind the single enterprise can impact charitable investment decisions on different aspects. On one side, large groups can be characterised by greater budget and visibility issues, as for company size considerations. On the other side, it is to be considered the influence of the parent company as investments driver.

The variable GROUPSIZE is a continuous variable ranging from 0 to 7.271, that represent the absolute number of firms belonging to the group.

	Mean	SD	Min	Max
GROUP	64,06	340,85	0	7.271

Table 3.22: GROUPSIZE variable

BOD COMPOSITION. Over years, the feminine presence in the Board of Directors has been accepted and recognized as an important role in the corporate board, so that also numbers underline this increasingly inclusion (Elgar t, 1983; Harrigan, 1981; Schwartz, 1980; in Wang and Coffey, 1992).

It is reasonable to state that their different background and attitude is a benefit for a company, that is given another broader perspective than the mere profit: women are very likely to influence the overall level of corporate philantropy, and some scholars argued that also they direct the amounts devoted to charity toward specific programs consistent with their preferences.

However, the reasons that prompt female directors' focus toward charity, for some authors, goes beyond their pure personality. For example, Marx (2000; in Williams, 2003) argued that women are more sensitive to corporate social responsibility issues and the welfare of various stakeholders due to the sense of empowerment related to giving: the fact that for years they had to fight to get some acknowledgment lead them to search for a legitimation to seat in the board also in our times. Philantropy is one of the topic that give them decisional power, giving them a meaning to their presence in the board.

	Mean	SD	Min	Max
WOMEN	13,45	29,55	0	100

Table 3.23: WOMEN variable

Irrespective of the deeper reasons, the importance that women directors influence could have during the company resources' allocation is so great that a dedicated variable has been set: WOMEN is a continuous variable that ranges from 0 to 100 that shows the BoD composition with focus on the percentage of women.

Financial Performance Variables

It is well-established that the firm financial performance has a strong impact in the level of charitable investments: firms with higher earnings and profits have increased ability to support

social and environmental causes while the lower level of profits, the less the firm will be able to engage in these kind of activities (McGuire et al., 1988; Ullmann, 1985; in Williams, 2003)

ROE. Many scholars used to refer to profitability measure with the classic ROE index that assess the overall performance of the firm (Williams, 2003; Williams and Barrett, 2000; Seifert et al., 2003).

Also for this research it is taken into consideration and the data gathered is the one referred to the year before the donation because of the assumption, valid across the whole research, that the conditions influencing the investment plan are those effective in the period in which the decision is made.

	Mean	SD	Min	Max
ROE	12,28	20,93	-135,95	96,06

Table 3.24: *ROE variable*

PROFITS. Alternatively, the absolute value of profits is used to assess the year performance, here more generically referred to INCOME as it can be either positive or negative.

On the opposite of the other economic dimensions coming from the balance statement, this in not transformed with the log function because of a simple mathematical issue.

	Mean	SD	Min	Max
INCOME	-8.685.081,25 €	437.253.086,48 €	-€ 11.601.111.000,00	954.953.000€

Table 3.25: INCOME variable

Variable name	Description	Measure
DEPENDENT VARIABLE		
CL4_4	Investing profiles	1 = Cluster 1 2 = Cluster 2 3 = Cluster 3 4 = Cluster 4
INDEPENDENT VARIABLES		
Firm characteristics and beahvioural variables		
LOGEMP	Firm's employement	Natural logarithm of previous year firm employees
LOGREV	Firm's sales revenues	Natural logarithm of previous year firm sales revenues
LOGASS	Firm's total assets	Natural logarithm of firm total assets
AGE	Maturity	Previous year firm age
TYPE	Juridical form	1 = limited company 0 = otherwise (cooperatives and consortia)
ARTISTICREGION	Geographical/artistic area	Number of cultural and artistic endeavours in the region business palce
SERVICES	Industry sector type	1 = consumer oriented company 0 = otherwise
SOCENVIMPACT	Industry sector desirability	1 = company with negative significant social or environmental impact 0 = otherwise
REPUTATION	Reputation	1 = company has national or global visibility 0 = otherwise
MULTIPLE	Investment Pattern	1 = multiple investment 0 = single investment
Firm ownership and control		
LIST	Private/public control	1 = company listed in the stock market 0 = otherwise
INDIVIDUAL	Owner/Majority shareholder	1 = owner is an individual 0 = otherwise
CORPORATION	Owner/Majority shareholder	1 = owner/majority shareholder is a corporation 0 = otherwise
BANKINSOURANCE	Owner/Majority shareholder	1 = owner/majority shareholder is a bank or insourance company 0 = otherwise
ORIGINAR	Shareholder nationality	1 = owner/majority shareholder is Italian 0 = otherwise
GROUP	Group membership	Number of firms in the group
STATEPARTICIPATION	State participation	State participation (%)
WOMEN	BoD gender structure	Quantity of woman in the BoD (%)
Firm financial variables		
ROE	Overall profitability	ROE index
INCOME	Firm result	Previous year firm's income

Table 3.26: Regression variables summary

The model

Before moving on with the regression, it is important to test the last of the six assumptions on that are the basis for a relevant and reliable result: the absence of multicollinearity among predicting variables.

The results of correlation test are shown in *Table 3.27* and it is evident that there is a link between INDIVIDUAL and CORPORATION variables, as well as among LOGEMP, LOGREV and LOGASS. Since the first couple of variable is not complementary the correlation was not obvious, however the two owners' status gathers the majority of cases and it is like the two exhaust the multiple cases of the sample. Instead, the other correlation case was predictable because all the three variables involved describe the corporate size, and choosing one of them is mandatory.

The choice among the former multicollinearity case is related to the most relevant results obtained by the regression since there are not formal criteria to evaluate the best variable to use; but the latter choice is driven by scarcity data consideration. In effect, previous research proved that variables with many blank spaces due to the lack of information are more likely to distort the final result. In this case LOGEMP recorded 696 valid results versus the 723 valid cases for LOGREV and 731 valid cases associated to LOGASS, leading to declare Total Assets as the most appropriate factor to explain company size in the regression.

Multinomial logistic regression is usual to start with the variable split: for independent variables, dummy and categorical variables are recorded as factors while continuous variables are indicated as covariates. Concerning the dependent variable, namely the four clusters, the reference category has to be chosen. For this regression the selected cluster is the number one because it is the most popular investment style category and it can be assumed as the rule: the other categories are variations to this essential profile and it is reasonable to assume that also different company characteristics drive the different profiles

Table 3.27: Regression variables correlation table (N=733)

		Mean	SD	1	2	3	4	5	6	7	8	9	10
1	TYPE	0,92	0,26	1	,046	-,202**	-,003	,111**	-,186**	-,078*	,050	,203**	-,131**
2	LIST	0,03	0,16		1	,050	,013	-,038	,051	,059	,128**	-,107**	-,018
3	AGE	27,98	20,67			1	-,047	-,002	,013	-,008	,049	-,175**	,077*
4	ARTISTICREGION	384,76	101,96				1	,060	-,119**	,053	-,041	-,029	,014
5	SOCENVIMPACT	0,13	0,34					1	-,412**	-,015	-,063	,003	,051
6	SERVICE	0,53	0,49						1	,085*	,018	-,041	-,075*
7	WOMEN	13,45	29,55							1	,002	,088*	-,051
8	GROUPSIZE	64,06	340,85								1	-,155**	-,004
9	INDIVIDUAL	0,53	0,49									1	-,729**
10	CORPORATION	0,31	0,46										1
11	FINANCIAL	0,10	0,30										
12	ORIGIN	0,94	0,24										
13	STATEPARTICIPATION	2,75	14,84										
14	LOGEMP	4,02	1,88										
15	LOGREV	16,34	2,25										
16	LOGASS	16,73	2,56										
17	INCOME	-8685081,25	437253086,47										
18	PROFITABILITY	0,14	1,57										
19	ROE	12,27	20,93										
20	REPUTATION	0,04	0,20										
21	MULTIPLE	0,22	0,41										

** Correlation is significant at the 0,01 level (2-tail).

* Correlation is significant at the 0,05 level (2-tail).

Table 3.27: Regression variables correlation table (N=733) (continues)

		Mean	SD	11	12	13	14	15	16	17	18	19	20	21
1	TYPE	0,92	0,26	-,128**	-,030	,025	-,117**	-,036	-,096**	-,006	-,042	,130**	,008	-,023
2	LIST	0,03	0,16	,202**	-,066	,024	,291**	,242**	,323**	-,223**	-,008	-,049	,350**	-,055
3	AGE	27,98	20,67	,141**	-,034	-,028	,315**	,314**	,372**	-,197**	,064	-,144**	,122**	,050
4	ARTISTICREGION	384,76	101,96	,042	-,008	,051	-,001	,038	,000	,014	-,051	,034	,025	,004
5	SOCENVIMPACT	0,13	0,34	-,050	,032	-,012	-,007	,110**	,064	,013	-,012	,070	-,082*	,016
6	SERVICE	0,53	0,49	,116**	-,013	,092*	-,044	-,139**	-,019	-,033	,047	-,018	,090*	,003
7	WOMEN	13,45	29,55	-,022	,041	-,015	-,021	-,061	-,064	-,022	-,025	,022	,017	-,031
8	GROUPSIZE	64,06	340,85	,164**	-,408**	-,014	,266**	,255**	,268**	-,148**	,113**	-,033	,365**	-,030
9	INDIVIDUAL	0,53	0,49	-,361**	,173**	-,201**	-,455**	-,421**	-,490**	,026	-,048	,119**	-,199**	,042
10	CORPORATION	0,31	0,46	-,227**	-,133**	-,046	,284**	,293**	,270**	,036	,033	-,043	,019	-,025
11	FINANCIAL	0,10	0,30	1	,029	-,062	,274**	,233**	,357**	-,106**	,041	-,068	,335**	-,023
12	ORIGIN	0,94	0,24		1	,048	-,189**	-,223**	-,180**	-,018	-,129**	-,012	-,257**	,011
13	STATEPARTICIPATION	2,75	14,84			1	,061	,016	,060	,006	-,013	-,062	-,039	-,004
14	LOGEMP	4,02	1,88				1	,838**	,786**	-,112**	,061	-,105**	,347**	-,015
15	LOGREV	16,34	2,25					1	,842**	-,087*	,049	-,054	,360**	-,026
16	LOGASS	16,73	2,56						1	-,116**	-,035	-,137**	,406**	-,015
17	INCOME	-8685081,25	437253086,47							1	,004	,085*	-,135**	,015
18	PROFITABILITY	0,14	1,57								1	,025	-,007	-,018
19	ROE	12,27	20,93									1	-,009	-,004
20	REPUTATION	0,04	0,20										1	-,026
21	MULTIPLE	0,22	0,41											1

** Correlation is significant at the 0,01 level (2-tail).

* Correlation is significant at the 0,05 level (2-tail).

The results

The first step to interpret result is evaluating the overall model by mean of one or several tables generated by SPSS software.

The first regression table is called "Model Fitting Information" and it compares the model containing all the explanatory variables to the model with the intercept only: the fact that the Final model, namely those including all the variables, has a Chi-squared that is statistically significant (p-value < ,05) means that those predicting variables statistically significantly predict the dependent variable better than the models with the intercept only.

Model	Model fitting criteria	Likelihood ratio test		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	1817,905			
Final	1618,475	199,430	45	,000

Table 3.28: Model Fitting Information

"Goodness of fit" table is useful to understand how well model fits the data: both the rows recorded a Chi-squared statistic, respectively Pearson and Deviance statistics. The larger the statistics, the worst the model fits the data; however, despite its usual meaning, the statistically significant p-value indicates that the model is not appropriate. Even if the two statistics do not always give the same result, in this regression the former is ,264 and the latter is 1,000, confirming that the model fits well the data since they are both greater than ,05.

	Chi-Square	df	Sig.
Pearson	2046,516	2007	,264
Deviance	1601,603	2007	1,000

Table 3.29: Goodness of Fit

In addition to the first two measures, multinomial logistic regression provides three Pseudo R-squared measures (*Table 3.30*). As for the ordinary least-squares linear regression, R^2 should indicate the proportion of variance that can be explained by the model. However, they are not fully reliable neither of easy interpretation as the OLS version because of many limitations, one of which is the impossibility of comparing them across samples (Mood 2010, in Denham,

2016). Cox and Snell, Nagelkerke and McFadden measures range from ,109 to ,263, explaining about the 26% of the model under the best circumstances.

Cox and Snell	,243
Nagelkerke	,263
McFadden	,109

Table 3.30: Pseudo R-squared

Of much greater importance is the Likelihood ratio test (Table 3.31) that shows the contribution of each variable to the overall model. The variables contributing to predict the investment styles are 7 out of 15.

Effect	Model fitting criteria	Likelihood Ratio Test		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	1622,438[a]	0,000	0	
LOGASS	1652,842	34,367	3	,000**
AGE	1619,848	1,373	3	,712
TYPE	1620,874	2,400	3	,494
ARTISTICREGION	1652,184	33,709	3	,000**
SOCENVIMPACT	1631,950	13,475	3	,004**
REPUTATION	1619,613	1,138	3	,768
MULTIPLE	1624,533	6,059	3	,109
LIST	1621,189	2,714	3	,438
CORPORATIONS	1620,454	1,979	3	,577
FINANCIAL	1631,022	12,547	3	,006**
ORIGIN	1629,563	4,960	3	,175
STATEPARTICIPATION	1629,563	11,088	3	,011**
GROUPSIZE	1626,219	7,745	3	,052
WOMEN	1630,512	12,037	3	,007**
INCOME	1626,387	7,912	3	,048**

The chi-square statistic is the difference in -2 log-likelihoods between the final model and the reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.
a. The reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Table 3.31: Likelihood Test Ratio

Among the firm characteristic variables, size (LOGASS), geographical position (ARTISTICREGION) and industry (SOCENVIMPACT) seems to have a relevant impact, but the behavioural representative (MULTIPLE). About the ownership and control study issue, Board of

Director composition (WOMEN), the ownership status (FINANCIAL) and the State participation (STATEPARTICIPATION) have a meaningful impact. And the unique financial variable (INCOME) is significant, as well. However, this is a generic summary table and that does not consider the single cluster-variable relationship, therefore any consideration is left to Parameter estimate table (*Table 3.32*).

Dimension	**Predictor**	**Cluster 1 vs.**	**B**	**OR**	**Sig.**
Size	LOGASS	Cluster 2	-,206	,814	<0,001**
		Cluster 3	-,119	,887	,096
		Cluster 4	,209	1,233	,004**
Age	AGE	Cluster 2	,005	1,005	,365
		Cluster 3	-,002	,998	,813
		Cluster 4	-,002	,998	,797
Juridical form	TYPE	Cluster 2	,081	1,084	,827
		Cluster 3	-,378	,685	,464
		Cluster 4	-,654	,520	,238
Location	ARTISTICREGION	Cluster 2	,002	1,002	,009**
		Cluster 3	-,004	,996	<0,001**
		Cluster 4	,003	1,003	,037**
Industry	SOCENVIMPACT	Cluster 2	,122	1,130	,660
		Cluster 3	1,202	3,328	,030**
		Cluster 4	-,661	,517	,033**
Reputation	REPUTATION	Cluster 2	-,647	,524	,510
		Cluster 3	-,147	,863	,882
		Cluster 4	-,628	,534	,338
Investment pattern	MULTIPLE	Cluster 2	,535	1,708	,024**
		Cluster 3	-,012	,988	,970
		Cluster 4	,337	1,401	,246
List	LIST	Cluster 2	-,770	,463	,327
		Cluster 3	1,117	3,056	,381
		Cluster 4	-,342	,711	,628
Owner or Majority Shareholder	CORPORATION	Cluster 2	-,044	,957	,842
		Cluster 3	,172	1,188	,583
		Cluster 4	-,318	,728	,250
	FINANCIAL	Cluster 2	-,760	,468	,206
		Cluster 3	-2,148	,117	,001**
		Cluster 4	-,379	,684	,575
	ORIGIN	Cluster 2	,073	,929	,890
		Cluster 3	1,192	3,294	,032**
		Cluster 4	,255	1,290	,614

State Participation	STATEPARTICIPA-TION	Cluster 2	-,004	,996	,517
		Cluster 3	-1,585	,206	
		Cluster 4	,012	1,012	,052
Group	GROUPSIZE	Cluster 2	-,003	,997	,059
		Cluster 3	-,001	,999	,266
		Cluster 4	,000	1,000	,737
Bod Composition	WOMEN	Cluster 2	-,004	,996	,161
		Cluster 3	,008	1,008	,026**
		Cluster 4	-,006	,994	,226
Profits	INCOME	Cluster 2	,000	1,000	,449
		Cluster 3	,000	1,000	,041**
		Cluster 4	,000	1,000	,723

OR = odds ratio associated with the effect of a one standard deviation increase in the predictor.

Table 3.32: Parameter estimates contrasting the Cluster 1 versus each one of the other clusters (N = 733)

Results are presented in *Table 3.32* to allow the variable relevance comparison among clusters. The estimated coefficients should be interpreted as the probability to belong the compared cluster with respect of the reference cluster (Cluster 1).

In particular, for continuous variables, namely those representing the size, age, the state participation, the group size, the women presence in the BOD and the income, positive coefficients or Odds Ratio greater than 1 mean that the greater the value of the independent variable the more likely the outcome to fall in the comparison group with respect of the reference group; while negative coefficients or Odds Ratio below 1 indicates that the risk of the outcome falling in the reference group is greater.

For what concerns dummy variables, i.e. the remaining predictors, a positive coefficient or OR grater that 1 would mean that the absence of that specific company feature is more likely to predict the belongingness to the group, since the automatic reference code for this analysis is dummy=0. On the opposite, the negative coefficient or OR lower that 1 suggest that the presence of that specific company characteristic is more likely to determine the belongingness of the case on that investing style.

The estimated parameters for the equations using LOGASS shows strong support for two out of three clusters, for which the variable is statistically significant but with opposite sign. The larger the company dimensions, it seems that the likelihood to be part of cluster two diminish of 0.814 and it should indicate the ease to find large companies in Cluster 1, instead. While,

the opposite effect results for Cluster 4. The relative risk ratio of belonging to Cluster 4 relative to Cluster 1 for one-unit increase in company size is expected to increase by a factor of 1.233; meaning that as the company size and related visibility increase, the probability to be part of Cluster 4, rather than Cluster 1, increases.

The most interesting predictor for the industry-related variables is the social and/or environmental impact, that is kept to the exclusion of SERVICES variable, negatively impacting the overall fitting of the model. As occurred for size variable, SOCENVIMPACT presents opposite impacts to the two cluster for which it is statistically relevant.
When applied to Cluster 3, it allows to exclude that companies working on industry sectors with some negative social and/or environmental impact belong to this cluster: the contrary situation, represented by SOCENVIMPACT=0, increases the probability to belong to the cluster with a factor of 3.328. On the opposite, the sign of the variable when associated to Cluster 4 leads to consider it as a critical value. If the firm operates in an industry sector without any social or environmental impact, it is less likely to belong to Cluster 4 rather than Cluster 1, with a decreasing factor of 0,517; therefore, the contrary is true: a business with either social or environmental impact is more likely to be classified in Cluster 4. This result derives its justification in the theoretical background analysed on the previous chapter, stating that one of the industry related causes for investing may be the willingness to improve external perceptions, however any other conclusion about the cluster is left to the following chapter.

Location description is the most significant predictor in the overall bunch of variables because, despite other predictors, it gives the strongest support transversal to all the clusters. ARTISTICREGION is statistically significant for all the three compared clusters, confirming that there is a real relationship between the preference for investing inside the ideal boundaries created by business area and the number of works of Art and Culture present in that territory.
In addition to the positive impact, Cluster 2 and Cluster 4, has the similar variable results: the presence of artistic and, more generally, cultural endeavours increase the probability to fall in those two clusters of a factor respectively equeal to 1.002 and 1.003 with respect of the reference Cluster. Since 1.000 factor is the discriminant value standing for equal probability, the fact that the firm is seat into a region with more Artistic and Cultural works slightly increase the probability of belonging to those clusters, even if this risk is almost flat.
On the contrary, the significance of ARTISTICREGION variable for Cluster 3 leads to opposite results. In particular, the odds ratio equals to 0.996 suggests that the higher the number of Arts

and Culture projects in the region the lower the risk for the firms to belong to this Cluster. As consequence it seems reasonable to advance the hypothesis that the lack of cultural activities in the same place of the headquarter encourages those investors to focus their attention further.

The last one significant variable is the company behaviour representative: MULTIPLE variable, supporting only Cluster 2 with a positive sign. In particular, it states that investing just once instead of having a strong Arts and Culture investing strategy within the Art and Bonus framework increases the risk of falling in Cluster 2 instead of falling in Cluster 1 with a factor of 1,708.

While the results related to companies' age, juridical form and reputation are flatter because they do not present significant values for any of the clusters.

The second group of variables is constituted by those related to the *Ownership and Control,* of which only four of them seems to support at least one of the three comparing Clusters.
The fact that the property is spread among many investors in the market or concentrated in the hands of private owner, as described by LIST variables does not affect the company probability to be part of a group instead of another. As well as the other side of the property issue, namely STATEPARTICIPATION, seems not to impact the final outcome, despite Art Bonus had been introduced with particular interest for subvention directed to Arts and Cultural work owned by different State entities, so that any kind of impact was expected.

However, considerations about who is the owner and where he is from lead to highlight the significance of FINANCIAL owners, to the exclusion of CORPORATION, and ORIGIN for just one of the three.
FINANCIAL variable presents a negative impact on Cluster 3: if the ultimate owner is other than a financial entity (FINANCIAL=0), then the risk to fall into the analysed cluster decrease of 0.117 points.
For this reason, it is possible to declare that, for firms belonging to Cluster 3, having an ultimate owner as bank, a financial or an insurance company increases the probability to belong this clusters with respect to the reference Cluster.

In the same way, ORIGIN variable provides a limited benefit to the model, with a positive impact only toward Cluster 3. Stranger ultimate owner's nationality (ORIGIN=0) increases the risk to belong to this Cluster of 3.294.

Together with ownership, also firms' control issue is relatively important for the model, by affecting positively the belonginess to Cluster 3: by increasing of one-unit WOMEN variable, namely the percentage of female in the BoD, the outcome probability to fall in this Cluster instead of reference Cluster increases of 1,008 points.

The last variable, INCOME, summarizes the *firms' financial framework* since its couple, ROE, had been eliminated because of its distorting effect due to the high lack of information (including ROE sample cases would turn from 733 to 706).
Company profitability supports the model just related to Cluster 3, but presenting a peculiarity. In effect, this is the unique case in which the variable is significant but it is associated to 0,000 parameters estimate and 1,000 Odds Ratio, meaning that there is an equal probability that Cases belong to Cluster 3 and to the reference Cluster 1. In other words, it adds some information to the model but it is not likely to provide arguments to the discussion, because it suggests a generic probability to give.

3.4 Conclusions

The hypothesis set at the beginning of the chapter, about the possibility to analyse further the relationship between corporations and the Arts and Culture investments, can be considered validated.
It was possible to identify four clear and well-defined profiles within Art Bonus donors investing behaviours, that are not strongly different one each other, but they have almost one or two giving dimensions that make the categories unique and worthy to deepen.
Three out of four donors' profiles present a medium-low spending power, leading to assume that, at higher involvement corresponds a lower gift amount, despite the same narrow geographical focus. On the other side low giving amount can be combined with a medium involvement but very open-minded attitude considering the geographical distance.
At the end, big spenders seem to be a meaningful category among donors, that focus on average distance endeavours and do not seek for too high level of involvement.
The analysis also confirmed that some company features, already identified by early studies, do not only impact the generic firm willingness to donate but they seem to have a predicting effect on the four specifically identified investment styles. Company size, location, profitability, industry, ultimate owner's main traits, and board composition are all determinants of corporate

investing behaviour, allowing to set “donors’ profiles” useful for better targeting Italian companies actually involved or somehow interested in philanthropic activities.

4. CHAPTER FOUR

THE INVESTING PROFILES

4.1 Introduction

The statistical analysis run and described in the previous chapter suggests that the two research questions at the centre of this paper get an interesting answer.

The answer to the first question, concerning the wandering of *what are the characteristics of different investing styles in the Arts and Culture adopted by Italian companies benefiting from Art Bonus rule,* is triple. Amount, object type and distance are the three significant investment features representing respectively the economic, social and environmental dimensions of sustainable performance and allowing to identify four investing profiles, each of them made unique by at least one determinant variable.

Also the second research question, asking *what are the enterprises features, either organizational, behavioural, industrial and financial, determining the investment decision and predicting the different investing styles,* got an interesting result from the regression analysis. An average of three company dimensions per cluster resulted to be significant as investment predictors. This is true except for Cluster 3 that reached the higher amount of five meaningful variables, well distributed among the three corporate fields previously identified.

If until now the groups resulted by the Cluster Analysis were identified by a progressive number, the following paragraphs are going to put together the main features and to classify them under well-defined and distinctive labels: the Art Bonus investing profiles.

4.2 Investing profiles

4.2.1 Cluster 2: Local Masters

Companies belonging to Cluster 2 are identified with the name of "Local Masters", to recall and underline their distinctive features: the local focus and the medium-high level of involvement in the projects supported.

In effect, this group of companies is strongly focus on medium involvement investments (Type A – 90%) and it includes also most the companies investing in projects with the highest level of involvement present in the sample (Type C – 6%). Thanks to the high concentration of the Arts and Culture endeavours, they are able to concentrate their efforts on CRS projects located in the same city or in the same province where they run their daily business. This makes them the Masters of their local community support.

However, despite this high philanthropic commitment, the economic commitment is the lowest compared to the other investing profiles emerged. The core amount donated goes from 1.000€ to 5.002€, allowing to identify this cluster as the one with the lower spending power. The low amount given to Art Bonus projects is probably linked to the moderately size of the firms in the group. In fact, about the 70% of the firms belonging to this cluster are micro and small sized, and regression results support the hypothesis: the larger the size, the less the likelihood to be a Local Master.

The decision to invest at home can be contextualized by the already explored concept of *business exposure*, term introduced by Miles (1987, in Saiia et al., 2003) to identify the extent to which the firm is under the influence of the social environment.

In the previous chapter, we referred to this concept as to visibility, stating that it was strongly influenced by firm sizes, but also by product/services-related risk and geographical dispersion (Saiia et al., 2003), confirming that everything getting out the company is somehow relevant. A consistent part of authors based their theories on information availability; in particular, on the tendency of supporting local business because of the ease with which financial investors get local firms-specific details (Hau, 2001; Dvorˇa´k, 2005; Brennan and Cao, 1997; Parwada et al., 2007; in Kalev et al., 2008). Possible barriers to information are minimized at community level, and this principle is still valid looking at philanthropic projects, under the spotlight for their inherent strategic value for the business.

As found by Saiia et al. (2003) all companies' aim is better managing "limited resources in such a way that incorporates both the business competitive reality and the need for community improvement for a net social benefit" and strategic philanthropy, included into CSR practices, is perfect for this purpose.

Irrespective on the size, strategic philanthropy needs to be planned with care and its results need to be monitored accurately because of the impact on company image. In this framework, Local Masters find their place since their cluster explains the reasons behind their investment style, including their inclination to invest only once within Art Bonus framework. Even if it could seem a symptom of low engagement, conflicting with respect of all the results described before, it can be interpreted with regard of their small size and business. On one hand, for small enterprises it is easier to reach their catchment area and one-shot investment can be enough to influence community set-of-mind and local social welfare. But, on the other hand, it is important to remind that investing in bigger national projects as Art Bonus, for which government and people has high expectations, means reaching higher resonance level, probably enlarging the catchment area and fully falling into the strategic philantropy web.

One of the most representative example to better identify Local Masters is GRUPPO E.I.L. - ELETTROMECCANICA – LOGITEC (F.C. 02312120542), a private firm established in Perugia, Umbria region. More precisely it is set in the small district of Ponte Felcino, one of the most developed industrial area of the Perugia territory, at only 7 km far from the region capital. Despite Umbria is not at the top position of Artistic region ranking, with its 176 works of Arts and Culture it is still included in the group of regions with a medium-level of artistic and cultural contents.

Since 1998, the establishment year, it manufactures lifting and handling equipment and machines. In particular, the firm had been organized into two different division: one dedicated to the electromechanically field, manufacturing automation systems servomechanism for yards and industrial handling; while the other division is dedicated to logistic services and procurement.

At the end of 2015, the year before the donation, GRUPPO E.I.L. can be classified as a small company, in line with SME guide provided by EU. Financial statement figures confirm this assertion because that year's official documents recorded 41 employees on the payroll, 8.476 K€ as turnover and 7.131 K€ as balance sheet total, with a growing trend about 3-5% each year

since 2010 except for the +20% recorded during the giving year, that is very likely to have had an impact on the investing to support the community.

Despite this prosperity period could had played a significant role for deciding to take part on the Art Bonus project, the amount given is € 1.400 out of € 20.400, total value to complete the conservative restoration (Type A) of Sant'Angelo Church in Ponte Felcino.

It is clear that the geographical proximity highlighted by the regression is respected: the enterprise and the endeavour are located in the same Ponte Felcino district, community that just at the beginning of June celebrated the official opening after the restoration project directed by Art Bonus fundraiser.

Some editorials dedicated by few local news media reported the news, the intervention, the major's acknowledgments, the names of the three patrons and their point of view. One of the two interviewed was, Alberto Fioriti, managing director of GRUPPO E.I.L., who highlighted the effort done for the community: "After the theatre, also this church is returned to Ponte Felcino inhabitants and I wish that it will be exploit because the district needs to state we are alive" (lavocedelterritorio.it). A declaration of intent that suggests an intrinsic need for visibility, saying to everybody that they are there and alive, and that will not be unnoticed thanks to the Art Bonus project resonance.

4.2.2 Cluster 3: The Eclectic Angels

The third group of investors, with its 96 cases, can be labelled as the smallest in the sample but the richest in term of specificities. On the previous chapter, only looking at the cluster analysis, this cluster compared to the previous one seemed to be just its conservative-cosmopolitan variation, but it has its distinctive soul.

The reason of this hypothesis was born comparing the amount variable. Eclectic Angels gifts are comparable to the average gift made by Local Masters, but it is slightly higher given the fact that the core giving ranges from 1.000€ to 8.000€, with an average of € 5.440.

Therefore, as anticipated, the distinctive details concern the other two dimensions of the cluster and the several company variables involved, considerably higher than the other inverting styles.

The conservative side comes from the type of endeavours supported: Eclectic Angels prefer the generic support (Type B – 63%) and partially medium-involvement support directed to cultural works restoration (Type A – 35%).

On the other side, the geographical component allows to define as cosmopolitan the Eclectic Angels category. Few of them focus their attention on regional artistic and cultural endeavours, but the majority invests on larger distances because of the Arts and Culture heritage scarcity. This increase the probability for Eclectic Angels to find their support object elsewhere, by broadening their horizons at the geographical area, i.e. North, Centre, South and Islands, or further, taking into account no links between the firm location and the heritage site.

Apart from the amount, that appears to be quite low, the other distinctive features make it similar to the informal investors' category of Business Angels, from which the corresponding Eclectic Angels had been derived.

Business Angels category was born in USA at the late 1800 when some people began to support economically Broadway shows first, and then they extended their action field to other entrepreneurial activities. Their role became so important that they had been formally recognized despite they are also defined as informal investors (Morrissette, 2007).

The main characteristic allowing the comparison is the passion component driving the investment, directed to the support of small initiatives, that, for Business Angels, are small and innovative start-ups that need for an economic boost; while, for Eclectic Angels, those are little works of arts and culture to be supported.

If the reason behind Business Angels investors is not purely financial, since their first objectives consist into being involved in entrepreneurial processes (Harrison et al. 2007), the same happens for Eclectic Angels, that seems not to invest for opportunistic causes such as to balance costs and damages to the environment and the society, but just for being present at community level.

However, returns still play an important role in each investment activity and the high probability for the firms in the sample to be guided by a financial ultimate owner can be an indicator. This financial direction, namely those given by a bank, an insurance or a financial company, has the peculiarity of being based outside Italy.

This characteristic is supported by a consistent group of corporate finance theories stating the superior investment skills of foreign investors, that make them able to analyse market conditions and to make a successful investment decision despite the geographical distance (Froot and Ramadorai, 2001; Grinblatt and Keloharju, 2000; Karolyi, 2002, Seasholes, 2004; in Kalev et

al., 2008). Nevertheless, it is important to bear in mind that the possible information asymmetries are minimized thanks to the intermediate position of the Italian subsidiary, that ease the decisional investment process.
Finally, concerning the ownership and control side, the role of women in the Board of Director has a significant role. Many studies about Business Angels tried to deep the effective benefit of feminine touch on the business and, even if there is no evidence of a strong intergender difference in term of venture capital investing style, it is true that women emphasis is able to potentiate the entire network to be more supportive (Wellman and Frank, 2001, p. 252; in Harrison et al. 2007).

The example that most fits the Eclectic Angels group is given by ALLIANZ SPA (05032630963). The insurance company with German origin that was established in Milan in 1966 and resulted from the merge of Allianz per l'Italia, the first Alianz subsidiary in Italy, with La Pace in 1967, and the subsequent acquisitions of RAS – Riunione Adriatica di Sicurtà in 1987, and, 8 years later, both L'Unione Subalpina di Assicurazioni and Lloyd Adriatico.
The company is one of the top player in the Italian insurance market and financial services, that during the donation year could rely on 4.320 employees, plus a huge sales force composed by 2.900 agents, about 22.000 partners and more than 1900 promoters (www.allianz.it).
As anticipated, Allianz S.p.a. is part of Allianz SE group, whose headquarter is located in Munich but with a well-established presence in 70 Countries, that is a worldwide insurance leader too.
This strong presence at national and global level matched with the core business sensitivity would be enough to explain the company's willingness to be part of the community and its welfare enhancement. And this is confirmed by the wide CSR program set at Group level and the several initiatives. Nevertheless, it is reasonable to underline that in line with the other companies in the Eclectic Angels group, the geographical link absence it is not completely true.
Allianz S.p.a. gave € 10.000 for the valorisation of Stalla Violina's ancient mosaics in Aquileia (UD), Friuli Venezia-Giulia Region, a particularly interesting Region for the company. In fact, Trieste, the region capital is the city where both RAS and Lloyd Adriatico were founded, the place where the company is registered and where the legal seat is kept, in addition to being scene of community-sponsorship initiatives other than Art Bonus.

Finally, looking at the BoD, it is possible to find the last company variable that distinguish this cluster from the other. In Allianz S.p.a 2 out of 6 BoD members are women and, specifically they cover the highest positions of the organigram: Claudia Parzani is the president, and Sirma Boshnakova with the role of vice-president might be key people for deciding to invest. But even more likely, the presence of Jacqueline Hunt, member to the Board of Management of Allianz SE and responsible for the ESG Board - a dedicated body to address environmental, social and governance issues – together with the two male colleagues, could had given a good emphasis to this kind of initiatives.

4.2.3 Cluster 4: The Rich Menders

Cluster 4, third for sample size, is identified with the label "Rich Mender", immediately recalling one of its specificities: among others, it is the one characterized by the highest average amount.

Those rich investors have greater possibilities or higher willingness to contribute to social and environmental welfare, concentrating their efforts mainly on the range from €25.000 to €50.000. The hypothesis about the higher donating power, that in part covers the reasons behind the investment argumentation, is validated by the firms' size. The 70% of them are medium and large sized companies, suggesting a higher participation thanks to the greater number of available resources, more attractive opportunities (Bowen, 2000, Orlitzky, 2001; in Brammer and Millington, 2006) that allow them to get an even higher competitive advantage (Ball and Foster,1982; in Adams and Hardwick, 1996).

On the other side, geographical distance and object type supported are more standard. Although type variable suggests a medium-low involvement, this investing profile is complementary to the Eclectic Angels. Both are oriented toward Type B and Type A investments, but the latter group is focused on the simple support; while Rich Menders are more likely to be committed with medium engagement projects, like heritage endeavours' restoration and valorisation (Type A – 78%). As consequence, they leave to generic support the second and last place of this ranking (Type B – 22%).

The economic and social emphasis described are just the 2/3 of the sustainable performance framework described in the previous chapter and here it has its complete representation.

The third environmental component arises from the sector in which the company runs its business. In effect, this cluster seems to have the higher concentration of firms involved in some

dangerous or cost-charging activities at expense of the local community or environment with respect of the other investing groups. Most of them base their business on products manufacturing implying the use of some critical raw materials like chemical product, rubber and metals while others deal with the supply of energy services. As anticipated in the previous chapter, in the past, many studies had already identified these industry sectors as critical because of the non-renewable resources usage, emission levels and energy consumption, letting us to recognize the direct link between the socially and environmentally damaging externalities generated and subsequent attention toward compensating CSR activities (Halme and Huse, 1996). And, despite times are changed, this tied relationship is even stronger.

However, thanks to the high number of works of Arts and Culture in the territory, the laboured redemption research in the eyes of the community keeps those kinds of donors in the neighbourhood and leading them to choose something in the same city or province; even if they do not reject other distances or territorial relationships.

The last company draw for representing the Rich Menders category is LUMSON S.P.A. (F.C. 04638920969), the limited company based in Capergnanica (Cremona), in Lombardia Region, whose core business is the development, production, decoration and distribution of primary plastic packaging for cosmetics, make-up, and pharmaceutical markets (lumson.com) since its foundation in 2004.

However, Lumson S.p.a. is not an independent company, on the opposite is just the Italian subsidiary of a larger group made of 12 companies based all over the world, among others France, Germany, Spain and US, and driven by the Italian holding MPM S.P.A. (F.C. 00968070193). The group belongingness, together with the financial statement data at the year before the donation, confirm the regression results about the size: thanks to its 280 employees, 63 Mio € of total assets and 1.2 Mio € Lumson S.p.a is accounted among large enterprises.

In part for their size, and thus the greater amount of resources available, and in part in the attempt of mitigating the possible negative image due to their core business, in 2016 Lumson S.p.a. decided to donate €35.000 for some preservative works to restore the Madonna Addolorata Chapel and to realize a cycle-pedestrian path connecting the chapel to the Capergnanica city centre.

However, Art Bonus is just one of the several responsibilities took by the company that is just part of a bigger and comprehensive sustainability strategy directed to the area promotion and

valorisation in term of both cosmetic district, by actively participating to the no profit association Polo Tecnologico Della Cosmesi, and attention to the local community, thanks to several projects in favour of the Crema city and its citizens, such as subvention to the local hospital and sponsorship of sports and cultural initiatives.
In the same way, also the high focus to products and processes quality led Lumson S.p.a. to declare the Good Manufacturing Practices to be at the base of their business and, in support, to obtain the double accreditation for the good management (ISO 9001) and environment respect (ISO 14001).

4.2.4 Cluster 1: The Stockholders

Finally, the reference cluster closes the loop of Art Bonus investing styles bringing to the attention the largest group of donors and also the most slacking.
First, the large group size is the reason behind the choice to identify this cluster as reference, meaning that the majority of donors prefer to give on average a slightly higher amount, at the expense of the supported work of art or cultural activities type, and the possible distance reached by the philanthropic sign.
Unfortunately, the relativity of regression results does not allow to extract specific details about this reference group, however some cluster deductions allows to identify also this category and to label it as that of Stockholders.
With an average amount of € 9.202, the cluster, whose investors are called stockholders, is in between of investors with low donation power, Local Masters and Eclectic Angels, and the richest part of the sample, constituted by Rich Menders. However, despite their donation core ranges from €1.500 to €14.000, the peak is at €5.000, somehow recalling the Local Masters investing style.
On the other side Stockholders are characterized by the lowest values in terms of engagement, since the 99% of their investments are made on Type B objects, and very tied relationship between the company and the territory, as the cases relative to cluster 1 are exhausted with distances corresponding to the same city, or furthest the same province.
At this purpose those investors are called Stockholders, to recall one of the items proposed by Gaston (1989, in Morrissette, 2007) in his investors classification: Stockholders are the less

active and the less involved investors type that, like company stockholders just commit an amount of money waiting for the returns.

4.3 Conclusions

The results of this research can be summarized by citing four investing entitlements, that correspond to the four investing profiles identified within the Art Bonus legislative framework.
By looking at this analysis, the Project's authority could have an insight about the kind of personality and intentions moving some of the companies' investment, involved in the project during the period 2014-2017. Specifically, the profiles are:

1. The Stockholders. It is the reference group in the regression analysis and therefore it is the cluster with the least information about company features. However, a late analysis let to identify it as the simplest way to participate. A medium amount of money dedicated to the Arts and Culture support is the maximum effort those donors are able to do. Therefore, just like the classical corporate's stockholders, they are the less involved into the operative activities and the more interested to the result.
2. The Local Masters. This cluster can be interpreted as the active variation of the Stockholder investors. The higher involvement on the object type supported is compensated by a lower giving power, probably related to the small size of those corporations, and local investments, that are likely to be justified by the high number of artistic and cultural sites presents in the area where the company run its business. The reason behind this kind of supports is probably the need for consolidating the company visibility thru a strategic philanthropy plan of activities that do not need for further implementations.
3. Eclectic Angels. Recalling the theories about informal investors providing companies with capital venture, those investors can be compared to Business Angels. Like them, Eclectic Angels are not moved as first by opportunistic reasons, but just by the willingness to be present. Exploiting the good capabilities of their financial foreigner ultimate owner of majority shareholder, combined with the emphasis of women in the Board of Directors, the company is able to cover greater distances and to get a more involved position.
4. Rich Menders. The determinants for the first part of this last cluster's name is the extremely high amounts compared to the other groups of investors, probably liked to the bigger size of the companies. Instead, the local focus is related to the fact that the area where they are located is plenty of works of art and culture; encouraging them to mitigate the negative

image among surrounded people, by granting some benefit thru the donation in the same place where the cost, generated by the core business, is imposed.

CONCLUSIONS

The main objective of this work was to explore the relationship between the Arts and Culture sector and business, clarifying the predicting roles of the company features and giving an Italian face to the distinctive investing profiles.
The remarkable results show that a handful of company features, either organizational, industrial and financial features, impact the company willingness to have an active role in the social environment they deal with. Moreover, these features are also predictors of different behavioural aspects within the macro-theme of corporate philanthropic investment practices.
In particular, the results of the empirical analysis seemed to show that Italian Art Bonus investors are very similar among each other. They are almost exclusively small players highly tied to the main land, with a limited donating power. These trends and behaviours reflect the Country's historical and cultural specificities. However, a deep insight gives the possibility to catch the nuances of these four profiles, clarifying their role within the project and the ratio behind the investment.
It is possible to summarize the investing profiles as follows:

The Stockholders' group is the largest and the simplest in terms of investment features. It fully represents the Italian investor type and for this reason it was considered the reference from which the other inverting profiles deviate.
A medium amount of money dedicated to the Arts and Culture support is the maximum effort those donors are able to achieve and, just like the classical corporate's stockholders, they are the less involved into the operative activities and the more interested to the final result.

The Local Masters is the most similar to the reference group and it can be considered its active version, thanks to the higher involvement level with respect of the Stockholders. The higher involvement reflected on the object type supported is combined with lower giving power, probably related to the small size of those corporations. The strong preference for local investments is likely to be justified by the high number of artistic and cultural sites in the area where the

company daily run its business. The reason behind this kind of Arts and Culture support is probably the need for consolidating the company visibility through a strategic philanthropy plan of activities that do not need multiple steps for implementation. Indeed, the high resonance of the Art Bonus in the news allow these small-medium enterprises to reach easily their catchment area and beyond with a moderately little effort.

Despite the group similarities especially in terms of amount donated and action-area, **Eclectic Angels**' intentions remind Business Angels investors category. Like them, Eclectic Angels initiative is mainly related to their willingness to be present into the community network with CSR activities. However, financial or marketing returns are not their first goal, even if they still play a relevant role for corporations.
Thanks to their financial foreigner ultimate owners or majority shareholders' good capabilities, combined with the emphasis of Board of Directors feminine component, the companies are able to broaden their perspective. They invest far from their place of business probably because of the lack of artistic and cultural projects in their neighbourhood and they chose demanding activities resulting to have a more involved position.

The last group of investors is classified with the name of **Rich Menders**.
The determinant feature justifying the first part of their name is the extremely high amounts dedicated to Art Bonus, probably related to the bigger size of the companies and thus to the larger resources availability. Instead, the local focus is linked to the fact that the area where they are located is plenty of works of art and culture. The proximity with philanthropy objects encourages and facilitates Rich Menders for CSR activities management, meant to compensate the company the negative externalities and social-environmental costs generated with the core business.

It is important to notice that this analysis presents also some limitations, that need to be considered while looking at the resulting investing profiles.
The main consideration is related to the sample. Despite it can be considered numerous enough (N=733) to get interesting and notable results, it corresponds to only a little part of the potential full sample. Indeed, the lack of information, the imperfect match among the two databases and some statistical considerations, like outlier detection, lowered the number of analysable cases.

Even if the results cannot be considered exhaustive and completely reflecting the actual picture, the four investing profiles remains a good proxy for identifying and describing the Art Bonus investors' type.

Being aware that this is a good illustration of the sample available and that future research should implement the analysis starting from this point, it can still be considered an interesting insight. In particular, the main beneficiary could be the Art Bonus managing authority that should evaluate it with a forward-looking strategic perspective to better target limited company-donors and to get the most satisfactory results, in terms of both social welfare policies and subjects involved.

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APPENDIX

Appendix A: One-way ANOVA multiple comparison

Dependent variable				Mean DIf-ference (I-J)	Std Error	Sig.	95% Confidence Interval	
							Lower Bonud	Upper Bound
AMOUNT	HSD di Tukey	1	2	5123,675*	764,716	,000	3154,56	7092,79
			3	3762,345*	1038,612	,002	1087,96	6436,74
			4	-28590,377*	991,506	,000	-31143,47	-26037,28
		2	1	-5123,675*	764,716	,000	-7092,79	-3154,56
			3	-1361,330	1053,435	,568	-4073,89	1351,23
			4	-33714,052*	1007,023	,000	-36307,10	-31121,00
		3	1	-3762,345*	1038,612	,002	-6436,74	-1087,96
			2	1361,330	1053,435	,568	-1351,23	4073,89
			4	-32352,722*	1228,014	,000	-35514,82	-29190,63
		4	1	28590,377*	991,506	,000	26037,28	31143,47
			2	33714,052*	1007,023	,000	31121,00	36307,10
			3	32352,722*	1228,014	,000	29190,63	35514,82
	LSD	1	2	5123,675*	764,716	,000	3622,37	6624,98
			3	3762,345*	1038,612	,000	1723,32	5801,37
			4	-28590,377*	991,506	,000	-30536,92	-26643,83
		2	1	-5123,675*	764,716	,000	-6624,98	-3622,37
			3	-1361,330	1053,435	,197	-3429,46	706,80
			4	-33714,052*	1007,023	,000	-35691,06	-31737,04
		3	1	-3762,345*	1038,612	,000	-5801,37	-1723,32
			2	1361,330	1053,435	,197	-706,80	3429,46
			4	-32352,722*	1228,014	,000	-34763,59	-29941,86
		4	1	28590,377*	991,506	,000	26643,83	30536,92
			2	33714,052*	1007,023	,000	31737,04	35691,06
			3	32352,722*	1228,014	,000	29941,86	34763,59
DI-STANCE	HSD di Tukey	1	2	-,077	,067	,661	-,25	,10
			3	-2,806*	,091	,000	-3,04	-2,57
			4	-,333*	,087	,001	-,56	-,11
		2	1	,077	,067	,661	-,10	,25
			3	-2,729*	,093	,000	-2,97	-2,49
			4	-,255*	,089	,021	-,48	-,03
		3	1	2,806*	,091	,000	2,57	3,04
			2	2,729*	,093	,000	2,49	2,97
			4	2,474*	,108	,000	2,20	2,75
		4	1	,333*	,087	,001	,11	,56

			2	,255*	,089	,021	,03	,48
			3	-2,474*	,108	,000	-2,75	-2,20
	LSD	1	2	-,077	,067	,252	-,21	,06
			3	-2,806*	,091	,000	-2,99	-2,63
			4	-,333*	,087	,000	-,50	-,16
		2	1	,077	,067	,252	-,06	,21
			3	-2,729*	,093	,000	-2,91	-2,55
			4	-,255*	,089	,004	-,43	-,08
		3	1	2,806*	,091	,000	2,63	2,99
			2	2,729*	,093	,000	2,55	2,91
			4	2,474*	,108	,000	2,26	2,69
		4	1	,333*	,087	,000	,16	,50
			2	,255*	,089	,004	,08	,43
			3	-2,474*	,108	,000	-2,69	-2,26
TYPE	HSD di Tukey	1	2	-1,064*	,026	,000	-1,13	-1,00
			3	-,427*	,035	,000	-,52	-,34
			4	-,734*	,033	,000	-,82	-,65
		2	1	1,064*	,026	,000	1,00	1,13
			3	,637*	,036	,000	,55	,73
			4	,330*	,034	,000	,24	,42
		3	1	,427*	,035	,000	,34	,52
			2	-,637*	,036	,000	-,73	-,55
			4	-,307*	,041	,000	-,41	-,20
		4	1	,734*	,033	,000	,65	,82
			2	-,330*	,034	,000	-,42	-,24
			3	,307*	,041	,000	,20	,41
	LSD	1	2	-1,064*	,026	,000	-1,11	-1,01
			3	-,427*	,035	,000	-,50	-,36
			4	-,734*	,033	,000	-,80	-,67
		2	1	1,064*	,026	,000	1,01	1,11
			3	,637*	,036	,000	,57	,71
			4	,330*	,034	,000	,26	,40
		3	1	,427*	,035	,000	,36	,50
			2	-,637*	,036	,000	-,71	-,57
			4	-,307*	,041	,000	-,39	-,23
		4	1	,734*	,033	,000	,67	,80
			2	-,330*	,034	,000	-,40	-,26
			3	,307*	,041	,000	,23	,39

*. The mean difference is significant at the 0.05 level

Appendix B: Five, four and three cluster solutions

Ward Method			AMOUNT	DISTANCE	TYPE
1	N	Valido	278	278	278
		Mancante/i	0	0	0
	Mean		9202,35	1,47	1,00
	Median		5000,00	1,00	1,00
	Std. Deviation		9239,459	,622	0,000
	Minimum		200	1	1
	Maximum		40000	4	1
2	N	Valido	132	132	132
		Mancante/i	0	0	0
	Mean		3736,40	1,00	2,00
	Median		2500,00	1,00	2,00
	Std. Deviation		3405,443	0,000	0,000
	Minimum		30	1	2
	Maximum		12000	1	2
3	N	Valido	96	96	96
		Mancante/i	0	0	0
	Mean		5440,00	4,28	1,43
	Median		4000,00	4,00	1,00
	Std. Deviation		5851,634	,764	,538
	Minimum		30	3	1
	Maximum		28000	5	3
4	N	Valido	109	109	109
		Mancante/i	0	0	0
	Mean		37792,72	1,81	1,73
	Median		35000,00	1,00	2,00
	Std. Deviation		15217,220	1,198	,444
	Minimum		15000	1	1
	Maximum		70000	5	2
5	N	Valido	118	118	118
		Mancante/i	0	0	0
	Mean		4461,55	2,17	2,14
	Median		3000,00	2,00	2,00
	Std. Deviation		4762,979	,528	,344
	Minimum		100	1	2
	Maximum		20000	3	3

Ward Method			AMOUNT	DISTANCE	TYPE
1	N	Valid	278	278	278
		Missing	0	0	0
	Mean		9202,35	1,47	1,00
	Median		5000,00	1,00	1,00
	Std. Deviation		9239,459	,622	0,000
	Minimum		200	1	1
	Maximum		40000	4	1
2	N	Valid	250	250	250
		Missing	0	0	0
	Mean		4078,67	1,55	2,06
	Median		3000,00	1,00	2,00
	Std. Deviation		4110,049	,688	,245
	Minimum		30	1	2
	Maximum		20000	3	3
3	N	Valid	96	96	96
		Missing	0	0	0
	Mean		5440,00	4,28	1,43
	Median		4000,00	4,00	1,00
	Std. Deviation		5851,634	,764	,538
	Minimum		30	3	1
	Maximum		28000	5	3
4	N	Valid	109	109	109
		Missing	0	0	0
	Mean		37792,72	1,81	1,73
	Median		35000,00	1,00	2,00
	Std. Deviation		15217,220	1,198	,444
	Minimum		15000	1	1
	Maximum		70000	5	2

Ward Method			AMOUNT	DISTANCE	TYPE
1	N	Valid	278	278	278
		Missing	0	0	0
	Mean		9202,35	1,47	1,00
	Median		5000,00	1,00	1,00
	Std. Deviation		9239,459	,622	0,000
	Minimum		200	1	1
	Maximum		40000	4	1
2	N	Valid	250	250	250
		Missing	0	0	0
	Mean		4078,67	1,55	2,06
	Median		3000,00	1,00	2,00
	Std. Deviation		4110,049	,688	,245
	Minimum		30	1	2
	Maximum		20000	3	3
3	N	Valid	205	205	205
		Missing	0	0	0
	Mean		22642,18	2,97	1,59
	Median		19610,76	3,00	2,00
	Std. Deviation		20010,956	1,601	,512
	Minimum		30	1	1
	Maximum		70000	5	3

Appendix C: Industry sector details – social and negative impact

ATECO		DESCRIPTION
B	05	Coal mining (peat excluded)
B	06	Oil and natural gas extraction
B	07	Non-metallic minerals extraction
B	08	Caves and mines other extraction activities
B	09	Extraction supportive activities
C	11	Beverage industry
C	12	Tobacco industry
C	17	Paper and paper product manufacturing
C	19	Coke and oil derivatives manufacturing
C	20	Chemical products manufacturing
C	22	Rubber and Plastic manufacturing
C	24	Metallurgy
C	25	Metal product manufacturing (machines and equipment excluded)
D	35	Electricity, gas, steam and air conditioning supply
E	36	Water collection, treatment and supply

Appendix D: Industry sector details – consumer oriented business

ATECO		DESCRIPTION
G	45	Cars and motorcycles wholesale, retail trade and reparations
G	46	Wholesale trade (cars and motorcycle excluded)
G	47	Retail trade (cars and motorcycle excluded)
H	49	Land transport and conduit-by transport
H	50	Sea transport
H	51	Air transport
H	52	Storage and transport supporting activities
H	53	Mail services and courier activities
I	55	Accommodation
I	56	Food services
J	58	Publishing activities
J	61	Telecommunications

J	63	Information system activities
K	64	Financial services activities (insurance and pension fund excluded)
K	65	Insurance and pension fund (mandatory social insurance excluded)
K	66	Financial and insurance services ancillary activities
L	68	Real estate
M	69	Legal and accounting activities
M	70	Business administration and managing consulting activities
M	71	Design and engineering activities
M	72	Scientific research and development
M	73	Advertising and market research
M	74	Other professionals, scientific and technical activities
M	75	Veterinary services
N	78	Human resources activities
N	79	Travel agencies and tour operator activities
N	81	Buildings and landscape services
N	82	Ancillary activities for office and other supportive services for enterprieses
O	84	Amministrazione pubblica e difesa; assicurazione sociale obbligatoria
P	85	Education
Q	86	Healthcare
Q	87	Residential social assistance services
Q	88	Non-residential social assistance services
R	90	Creative, artistic and entertainment activities
R	91	Library, archives, museum and other cultural activities
R	92	Attività riguardanti le lotterie, le scommesse, le case da gioco
R	93	Sport, entertaining activities
S	94	Association activities
S	95	Computer, personal goods reparations
S	96	Personal services activities