Economics and the ecology of creativity: evidence from Porto music industry

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Abstract

In the past, the main concepts of technology-related research were invention and innovation. More recently, the concept of creativity has emerged in related fields, so it is necessary to clearly distinguish this concept from invention and innovation, and also to identify and explain the relationship between them. Despite the relatively newness of the concept of creativity in this literature, there is already solid evidence of its importance for economic development. Related concepts such as creative economy, creative cities and creative industries are also relevant. In this dissertation we aim at characterizing a creative cluster that gained special evidence in Porto during the last decades: the music cluster. Reinforcing our motivation is also the evidence that there is a gap in the literature concerning the analysis of economics of music. We start by offering a bibliometric analysis on the published literature related with music and economics. After a brief statistical characterization of the music industry in Portugal, we focus our research on study of the music cluster in the city of Porto. For that purpose, we inquiry the main actors that act in the music field in the region in order to identify the relations between them. Based on the collected information, we may argue that there is a network between the actors within the to music industry in Porto.

Keywords: Creativity; Cluster; Music

JEL-Codes: C38; O30; Z1
Resumo

A investigação relacionada com inovação e tecnologia atribuiu, no passado, um papel central aos conceitos de invenção e inovação. Recentemente, o conceito de criatividade tem assumido uma relevância crescente, sendo necessário distingui-lo dos conceitos de invenção e inovação. Apesar de recente, existe evidência empírica que mostra a relevância da criatividade para o desenvolvimento económico. Outros conceitos, como economia criativa, cidades criativas e indústrias criativas são também considerados como relevantes na literatura e merecem ser caracterizados. Este tese tem como principal objetivo a caracterização de um cluster ou indústria criativa que tem ganho principal destaque na região do Porto: o cluster da música. A motivação para este tema advém ainda do facto de existir um gap na literatura no que toca ao estudo da economia da música. Este trabalho apresenta um estudo bibliométrico sobre a literatura publicada até à data no que toca à relação entre economia e música. Após uma breve caracterização estatística da indústria da música em Portugal, o estudo concentrou-se na caracterização do cluster da música na cidade do Porto. Para tal, inquiriram-se os principais atores relacionados com a indústria da música que atuam na região de forma a identificar as principais ligações entre eles. A informação recolhida permitiu concluir que existe uma network entre os atores da indústria da música que atuam na cidade do Porto.

JEL Code: C38; O30; Z1

Palavras chave: Criatividade; Cluster; Música
Index of Contents

Biographical Note ..................................................................................................................................... i
Acknowledgements ................................................................................................................................. ii
Abstract.................................................................................................................................................. iii
Resumo................................................................................................................................................... iv
Index of Contents ................................................................................................................................... v
Index of Tables: ....................................................................................................................................... vi
Index of Figures: ..................................................................................................................................... vii

1. Introduction .......................................................................................................................................... - 1 -

2. Literature Review ............................................................................................................................. - 3 -
   2.1 Innovation, invention and creativity ......................................................................................... - 3 -
   2.3. Clusters and the innovative/creative milieux ........................................................................ - 10 -

3. A bibliometric study on music and economics ............................................................................. - 14 -

4. The music industry in Porto and Portugal – a descriptive analysis ........................................ 19
   4.1 The music industry in Portugal ............................................................................................... 20
   4.2 Findings and analysis .............................................................................................................. 23
   4.3.1 Collecting information ...................................................................................................... 23
   4.3.2. Results ............................................................................................................................. 25
   4.3. 3. Final Perceptions ............................................................................................................. 32

5. Concluding Remarks ....................................................................................................................... 35

References ............................................................................................................................................... 37

Annexes: ................................................................................................................................................ 42
   Annex 1 – List of the actors of the music cluster in Porto ............................................................. 42
   Annex 2 – Inquiry to Music schools ............................................................................................... 45
   Annex 3 – Inquiry to Music hallsHalls and Bars ........................................................................... 47
Index of Tables:

**Table 1** Top journals, 1976-2014 ................................................................. - 16 -

**Table 2** Top authors, 1976-2014 ................................................................. - 17 -

**Table 3** Music and Performing Arts Industry - region Norte, 2008 .................. 20

**Table 4** Expenditures on cultural activities and sports of municipalities as a percentage of GDP (current prices), by NUTS II, 2002-2012 (%) ................................................. 21

**Table 5** Sold live show tickets by performance modality and type of performance, Portugal, 2011 and 2012 ........................................................................................................ 22

**Table 6** Live shows performances (No.) by performance modality (2011 and 2012) and type of performance; Annual ........................................................................................................ 22

**Table 7** Rooms/ spaces of precincts of performances by NUTS and type of room/space .................................................................................................................. 23

**Table 8** Sample vs number of answers, Porto, 2013 ........................................ 24

**Table 9** Courses by schools, Porto, 2013 ......................................................... 27

**Table 10** Live shows promoted by schools, Porto, 2013 ................................... 28

**Table 11** Type of contracted artists by music halls and bars, Porto, 2013 ........ 31
Index of Figures:

**Figure 1** Number of published articles using as search keywords “economics” and “music”, 1976–2014 ................................................................. - 14 -

**Figure 2** Number of published articles using as search keywords “economics” and “music” as a % of published articles using “economics” as search keyword, 1976–2014 - 15 -

**Figure 3** Authors’ affiliation by geographic origin, 1976-2014 ......................... - 17 -

**Figure 4** Expenditures on cultural activities and sports (€) of municipalities, by NUTS II, 2002-2012 (current prices).............................................................. 21

**Figure 5** Number of students in each school, Porto, 2013..................................... 25

**Figure 6** Number of students vs. number of workers, Porto, 2013.......................... 26

**Figure 7** Number of schools that offer each course, Porto, 2013 ......................... 27

**Figure 8** Relation of music schools with former students, Porto, 2013 ............... 29

**Figure 9** Relation of music schools with other entities, Porto, 2013 ..................... 29

**Figure 10** Capacity of music halls and bars, Porto, 2013...................................... 30

**Figure 11** Number of concerts, Porto, 2013 ...................................................... 30

**Figure 12** Relations between music halls and bars with other entities, Porto, 2013 ..... 31
1. Introduction

Creativity results from combined efforts of multiple agents like firms, institutions and individuals (Cohendet et al., 2009). Creative ideas have cross-cut effects in an economy, from the micro to the macro level. Therefore, creativity has a positive impact on economic growth and wealth (Florida, 2002).

Nowadays, research on creativity has gained a special attention both by scholars, policy-makers and creative people. In the past, the main focus of technology-related researchers was on innovation and invention so it is necessary to distinguish these concepts and identify the relationship between them and creativity. In addition, we need to explore concepts that are related with creativity such as creative cities, creative industries and creative economy. As stated by Florida (2002) the geographic concentration of people leads to development and economic growth. Creative cities usually conglomerate creative industries and cultural economy even if they are established in different corners of the city (Cooke et al., 2008). Creative industries are industries based on individual’s creativity, skill and talent (UNCTAD, 2008). Creative economy is a combination of creativity, culture, economy and technology, thus raising the ability to create and diffuse ideas and produce value, jobs and human development. Since we address the concept of creative industry, it is also important to explore the distinction between cluster and milieu. According to Porter (2000) cluster is a geographical concentration of firms within the same industry that benefits from the agglomeration of resources and structures. A milieu is more encompassing as it refers to relations established between the production system, different economic and social agents, and dynamic and collective culture and learning processes (Camagni, 1991).

In this dissertation we aim at characterizing a creative cluster that gained special evidence in Porto during the last decades: the music cluster. After identifying the main actors in the music scene in Porto, we aim to characterize their links and analyse how they interact with each other.

Hence, we propose the analysis of the following research questions: what are the main characteristics of Porto’s music cluster? Which actors can we identify in the music field? How do these actors interact within the cluster?
Reinforcing our motivation is also the evidence that there is a gap in the literature concerning the analysis of economics of music. In fact, this is one of our conclusions from the bibliometric analysis that we implemented on the published literature related with music and economics. This exercise also allowed us to understand the main research areas, and methodologies in this very narrow research field.

The structure of this dissertation is the following: after the Introduction, we present a literature review: firstly on the concepts of creativity, invention and innovation, and then on the concepts of creative economy, creative cities and creative industries. In Chapter 3 we present the results of the bibliometric study on the literature related with music and economics. Chapter 4 describes and analysis our results on the characterization of music industry, first in Portugal and then in Porto. Then we present the results of the implementation of the inquiry to the main actors in the music cluster in Porto. Finally, Chapter 5 concludes and offers some considerations regarding future research.
2. Literature Review

2.1 Innovation, invention and creativity

In this section we intend to explore the differences between creativity-related concepts: innovation, invention and creativity. To begin, we consider a simple model proposed by Swann (2009). This is a linear model where research and creativity lead to invention and invention leads to innovation. So, we can identify three different stages in the production process of innovation.

From the standpoint of Cohendet et al. (2009), the study of creativity entered the economic analysis only very recently. Creativity can be understood as a psychology or behavioural attribute, being identified as the capacity to choose, readjust or combine facts, ideas or images. Creativity aims to change the way we produce things or the rules of use. It is the production of new knowledge or a different combination of the knowledge that already exists that leads to invention or to creativity (Cohendet et al., 2009). It can be a long and complex process that does not have rules and cannot be codified in a paper or a blueprint. Creativity is the activity which results into invention (Swann, 2009).

Previously, the literature was dedicated to explore the concept of innovation. According to Schumpeter (1942), innovation is the process of bringing new ideas to the market. Since then, innovation has been studied for many scholars and economists have mostly considered invention as the foundation of innovation. So, it is important to understand the concept of invention in order to realize originalities and properties to create new products or overcome problems in the productive process. Invention is regarded as an idea; still it depends on the several cognitive abilities of different economic agents (Cohendet et al., 2009). Inventions are the result of exploration activities and correspond to ideas, drafts or projects for a new product or procedure that is frequently certificated to safeguard possible imitations. Nelson (1959) argued that invention is encouraged by the pursuit of profit but stresses that this process carries some uncertainties.

According to Swann (2009), not all invention can turn into innovation, as along this course a long time of development, implementation and some design work is needed. In economic terms the distinction between invention and innovation is about
whether or not it has economic use. While innovations mostly happen in firms or in organizations, inventions occur anywhere (Fagerberg et al., 2005). Usually there is a substantial time lag between invention and innovation. To turn an invention into an innovation it is required the conjunction of knowledge, skills and resources and also the need to understand the functioning of the market, distribution, financial system, among others. The general concept of innovation says that it starts with the predisposition of human beings to develop new and better forms to produce and apply them into practice (Fagerberg et al., 2005).

Without innovation, the world that we see today could not exist. We would not have essential innovations like telephone, transportation facilities or internet among others. Hence, this concept has to be taken more into account in the process of economic growth and development. Blaug (1963) settles this fact but associates innovation mostly to the increase of existing technical knowledge. Hippel (2010) considers that the most relevant innovations would originate from producers and commercialized via goods. Producers can make multiple copies of a single innovation and distribute them for multiple users; therefore, producers will get a good profit. Innovations can be technological changes or not. A simple transformation on the package or design can turn into a new product or improved product and it is not required a technological advancement. Therefore, producers only invest in an innovation if it has a strong chance to be viable or can contribute to build a set of knowledge that enables the appearance of a creative idea on the market (Fagerberg et al., 2005).

We can identify four stages in the process of innovation: Research and Development (R&D), invention, innovation and diffusion (Monteiro, 1992). The first step, R&D, is a primary input and can be divided into Scientific Research (elaboration of theoretical or experimental work that aims the acquisition of new scientific knowledge) and Experimental Development (based on existing knowledge with the aim to produce new materials, products or processes or improvements of existing ones). Scientific Research can be some way from the market whilst Experimental Development is closer to the market (Swann, 2009). The next stages are the invention and innovation that we have already characterized. This model does not consider creativity but Swann (2009) says that both R&D and creativity are inputs of invention.
Finally, diffusion only happens when innovation is successful. This corresponds to the diffusion or propagation of new products, processes or forms of organization among firms, sectors, regions and countries; it is the transfer of innovation from the first user to other potential users (Monteiro, 1992). Also, diffusion has the most significant effects on productivity growth and on the economy in general (Fagerberg et al, 2005).

For Schumpeter (1934) innovation can take different forms: (1) introduction of new commodities or qualitative better versions than the existing ones; (2) discover of new markets; (3) development of new methods of production; (4) discover of new sources of inputs for existing commodities; and (5) introduction of new forms of economic organization. Swann (2009) affirms that an innovation process merely changes the way how a product is made and an innovation product is the improvement of a product or creation of a new one, without changing how it is produced. Actually one form may lead to the other; as an improvement in the process can lead to an innovation in the product or the creation of a new product may require a new process to do it. An innovation at the organization level can be an adjustment on the management of the firm, for example regarding human resources, or new ways of approaching the market.

The economic impact of an innovation can also be rather different. For instance, according to the taxonomy of innovation proposed by Freeman and Perez (1988), it is possible to distinguish between (1) incremental innovation; (2) radical innovation; (3) new technological systems; (4) changes of techno-economics paradigms. An incremental innovation corresponds to the improvement of a product (or production process or organization) that does not transform their character in any fundamental way. The incremental innovation happens continuously but varies for different industries and countries. We can observe significant effects on the efficiency and productivity but this does not cause a major modification in the economy. A radical innovation is the opposite, as the improvement of a product (or production process or organization) changes its main utility. It occurs discontinuously and is the result of R&D. This type of innovation has a meaningful impact in the economy. New technological systems correspond to the appearance of a series of innovations (incremental, radical, at the organizational, product and process levels) that are interrelated technologically and economically, and that may change some sectors or create new ones. The change of
techno-economics paradigm represents a succession of innovations and modifications at the market level, the regulation of the economy and the organization of industries. These innovations have a major influence on the behaviour of the whole economy. They have a huge impact at the structural level and define a long cycle of growth.

All things considered, and within the framework above identified, creativity is the capacity to select, rearrange, combine or reorganize facts, images or thoughts. Creativity can be the production of new knowledge or the recycle of existing knowledge in order to create new things (Swann, 2009). Therefore, creativity is the ability of individuals to combine old knowledge or thoughts and turn them into ideas (inventions). Innovation is to put these ideas into practice and bring something with economic value

2.2. Creative cities, creative industries and creative economy

Previously we described the concept of creativity and its mains differences from the concepts of innovation and invention. In this section we intend to explore concepts related to creativity such as creative economy, creative industries and creative cities.

Nowadays with the emergence of new technologies (Internet and telecommunications), the need of being physically together for people who work together is relieved. However, the geographic concentration of people may induce development and economic growth, due to gains of efficiency (Florida, 2002).

Florida (2002) says that cities are sources of creativity and innovation because they are cauldrons of diversity and difference. Before, regional growth and development depend mainly on the performance of firms, namely when these firms are responsible for local decisions and are concentrated in clusters. Creative cities normally combine creative industries and the cultural economy even if they occupy different corners of the city (Cooke et al., 2008).

Some cities are chosen by creative people to develop their projects, being relevant to know why. What are the characteristics required for a city to become a creative city? Florida (2002) sustains that a certain kind of people seeks a definite economic level or lifestyle; particularly, highly educated people select cities with many opportunities, which are innovative, diverse and tolerant. They do not choose a certain
city because they are able to find a job there but because of specific potentials of that city.

The key to understand why creative people establish in certain places and the associated effects on economic growth is proposed by Florida (2002) as the 3Ts of economic development: technology, talent and tolerance. Technology is the combination of innovations and high-technology in a city. Talent is measured as having equivalent or above the bachelor degree. Tolerance is defined as openness, inclusiveness and diversity of cultures.

This author distinguishes a creative class that includes scientists, engineers, university professors, poets, novelists, artist, entertainers, actors, designers and architects, nonfiction writers, editors, cultural figures searches, analysts and opinion markers. This class is supposed to produce new forms or designs that can be transformed into something useful and profitable. Another class that Florida (2002) identifies is creative professionals who are people working on high-tech, financial, legal and health-care sectors and business management. This people have the capacity to solve problems because they have a high level of education and human capital. Despite the author considers these types of creative classes, he argues that all human beings can be creative and recognizes that creativity is an intrinsic human characteristic.

The creative class pursuits to escape traditional corporate firms and works in “creative centres”. Creative centres are crowded with high-qualified and creative people. As a result the economic outcomes are considerable including innovations and industrial growth. They are responsible for increasing regional employment and population. Therefore we have an integrated ecosystem (cultural, technological and economic) where people and firms can generate value.

Not all authors agree with the work presented by Florida (2002). Pratt (2008) says that the definition of 3Ts is highly dependent on the analyses (variables and their relationship) done by Florida (2002), which might be subjective, but agrees with the definition of creative class. Malanga (2004) does not agree with Florida’s classification (he claims that it is very simple and off the target). This author says that there are successful creative cities in terms of employment and population growth and where the level of qualified people is high, as well as there are towns where this does not happen. Glaeser and Saiz (2004) affirm that cities have a superior regional growth when they
have more skilled people than people with lower education. Another view that we must ponder is the one proposed by Hospers (2003) that there are various types of cities: technological-innovative, cultural-intellectual, cultural-technological and technological-organizational.¹ This author sustains that we do not know when a city can turn into a creative city but we can identify some characteristics that are needed to have a creative city like concentration of people, diversity of people and projects, and uncertainty (people are more dedicated to find solutions when they are insecure).

Cohendet et al. (2010) consider that the work made by Florida (2002) is just a starting point and research within this field must continue. These authors propose that we must characterize people for what they do and not for what they are. For him the condition to form a creative city is more the accumulation of people’s talents than an urban orientation to creativity.

Cohendet et al. (2010) divide creative cities into three layers given the different actors: upperground, middleground and underground. The upperground is constituted by creative industries or institutions which aim at bringing new ideas to the market (e.g., cultural and artistic centers, universities and research labs). These institutions have the financial and unification capacity to create new knowledge and new ways to approach the market. At this level creative ideas become more profitable.

In the middleground we find the intermediary groups and communities that link the underground to the upperground. It is at this level that the new knowledge is formalized, as these groups have the capacity to produce creative materials that are economically marketable and viable. Additionally, innovative ideas that will turn into new goods or services are grounded in these populations. The local environment is very important because it can stimulate their capacities (Cohen and Levinthal, 1989).

Finally, we have the underground which is constituted by individuals who are predisposed to create, develop new forms of art, even if beyond their working schedule.

¹ According to Hospers (2003), technological-innovative cities rise up new technological developments or technological revolutions. In cultural-intellectual cities a small group of innovative people exists that produces culture or science innovations. In cities classified as cultural-technological, culture and technology are combined like in film industry. In technological-organizational cities, creative individuals can solve some infrastructure problems, e.g. transport, housing, with inventive ideas.
This group is dedicated to creative, artistic and cultural activities that often take place outside of the institutions based on production, exploitation or diffusion (Cohendet et al., 2010). The industries become nearer to these activities to get inspiration. The underground is responsible for the emergence of new trends and it controls the evolution and trajectories of arts and culture. The development of a network between these individuals is very important, and this depends on the common capital. They need to work together and share the same local.

In 1998 appears for the first time the concept of creative industries after the UK Creative Industries Task Force promoted by the Department of Culture, Media and Sports: these industries are based on individual’s creativity, skill and talent. They also have the potential to create wealth and jobs through developing and exploiting intellectual property. Creative industries include activities such as Architecture, Performing Arts, Visual Arts and Antiques, Crafts and Jewellery, Film, Video and Audiovisual, Design, Fashion Design, Edition, Music, Advertising, Software and Computer Services, Educational Software and Entertainment, TV and Radio (UNCTAD, 2008).

According to Cohendet et al. (2010) it is crucial to apply the concept of agglomeration mechanisms to creative industries because other authors only study relationships between science and industry and do not take into account the power of creative milieux emerging from the world of arts and culture. Taking into account the concept of creative industries is relevant to understand the relationship between culture and trade. Creative industries have the innovative capacity to modify the nature of some traditional manufacturing and service sectors that prevent the problems of tomorrow (Propris, 2013).

Furthermore, creative industries contribute to the economy by producing creative goods or services that are consumed by the final consumers, and also indirectly producing knowledge (Propris, 2013).

Another important concept is creative economy. Howkins (2001) consider that people’s ideas are the most significant input and output of production, rather than property or capital. His theory follows the reasoning of Schumpeter’s “creative destruction”. In the report of UNCTAD (2008) creative economy is a mixture of creativity, culture, economy and technology, which has the capacity to create and diffuse ideas and
produce income and jobs, while at the same time stimulates social inclusion, cultural
diversity and human development. Propris (2013) says that the creative economy is
spatially concentrated, particularly in urban areas, forming creative clusters. The
creative industries are also localized near to each other in order to obtain gains from
inter-sectorial spillovers as well as unexpected cross-sector synergies - these correspond
to urbanization economies (Jacobs, 1970).

2.3. Clusters and the innovative/creative milieux

There are several concepts that attempt to explain innovation and concentration
in the regional context, such as industrial districts (Marshall, 1920 in Paniccia, 2003;
Becattini, 1987), clusters (Porter, 1990), innovative milieux (Camagni, 1991),
technology districts (Storper, 1992), regional innovation systems (Cooke, 2001),
learning regions (Asheim, 1996; Morgan, 1997) and local productive system (Courlet,
2001), which have been proposed in the last decades to incorporate the view that
regions are drivers of innovation and economic growth. Concerning the focus of this
paper, we will systematize the concepts of industrial district, creative milieu and cluster.

According to Marshall (1920) in (Paniccia, 2003), an industrial district refers to
the geographic concentration of small firms that belong to the same sector and share a
skilled workforce due to the existence of external economies. In Marshall (1890) in
(Paniccia, 2003) knowledge spillovers, labour market risk pooling, and vertical linkages
are identified as the main sources of localization economies. Thus, firms that use similar
technologies, inputs, and types of workers have incentives to co-locate.

According to Becattini (1991, pp. 111) a Marshallian industrial district is:

“(…) a socioeconomic entity which is characterized by the active coexistence of an open
community of people and a segmented population of firms. Since the community of people
and the population of firms live in the same geographical area, they will crisscross one
another, production activities and daily life overlap. The community is open because the
industrial nature of the district and the related problems of increasing returns imply
incoming and outgoing flows of goods and people. The population of firms is segmented in
the sense that different phases of the product function process are divided between the firms,
each of them specialized in one or few phases.”
The industrial district appears to be a typical form of territorialized productive organization where competition and solidarity exist between firms, which reduces local transaction costs, increases the sharing of innovations and produces significant job mobility (Maillat, 1998). The industrial district considers both the territorial integration of firms that act in the same territory and the vertical integration between them (understood as the capacity of outsourcing). Therefore, within the industrial district firms have economies of scale because of specialization and economies of agglomeration (localization) due to the sharing of knowledge, know-how and skilled labour (Mota, 1997). If some firms are concentrated in the same space and support each other they will be more competitive against their opponents. The localization in the same space will provide the access to information, ideas and conditions that will turn into competitive advantages.

According to Porter (2000) clusters are geographic concentrations of firms within the same industry, allowing them to access to specialized suppliers, services providers, firms in related industries, governmental and other institutions (e.g., universities, think tanks, vocational training providers, standards-setting agencies) that provide specialized training, education, information, research, and technical support. They also include trade associations and other collective entities involving cluster members. Lastly, foreign firms can be part of a cluster if they make permanent investments. These agents work all together in a particular field where they compete but also cooperate (Porter, 2000). This author also argues that clusters can be described as critical masses of unusual competitive success in particular business areas.

The geographic scope of clusters ranges from a state, region, or even a single city to span nearby or neighbouring countries, regions or cities. Their formation may be related to the distance over which informational, transactional, incentive, and other efficiencies occur (Porter, 2000).

Defining a cluster frontier comprises a creative process well-versed by understanding the connections and complementarities through industries and institutions that are more relevant to competition in a certain field. They are evaluated by their degree of productivity and innovation (Porter, 2000). Clusters can be formed in very different places and at several geographic levels. Therefore clusters occur in advanced
or developing economies, although in advanced economies they tend to be far more
developed (Porter, 1998). The boundaries of clusters continually evolve as new firms
and industries emerge, established industries shrink or decline, and local institutions
develop and change. Technological and market advances lead to new industries, create
new connections, or alter served markets. Regulatory changes also contribute to modify
boundaries, for example, as the existing ones in telecommunications and transport. Such
connections across firms and industries are fundamental to competition, to productivity,
and to the foundation of new business formation and innovation. The majority of
clusters participants are not direct competitors but rather serve different segments of
industries. Yet they share many common needs, opportunities, constraints, and obstacles
to productivity (Porter, 2000).

In the Global Competitiveness Report 1998 (Porter, 1998), we find evidence of
the clusters’ role in economic development. Consequently, the presence of a well-
developed cluster offers significant benefits to productivity and the ability to innovate
that are hard to match by firms based elsewhere. Clusters affect competition in three
broad ways and all of them reflect and amplify the parts of the diamond: (1) increasing
the current productivity of constituent firms or industries, (2) increasing the capacity of
cluster participants for innovation and productivity growth, and (3) encouraging new
business formation that supports innovation and expansion of the cluster (Porter, 2000).

A cluster is a system of interconnected firms and institutions and its main
advantages are related with external economies or spillovers. Clusters participants
benefit from their concentration and relationships, the juxtaposition of firms in related
industries, the concentration of specialized information-generating entities, and the
sophistication of consumers (Porter, 2000).

A related concept, proposed by Camagni (1991), is the concept of milieu, which
refers to the relations established between the production system, different economic
and social agents, a particular culture and representation system and a dynamic
collective learning process. As affirmed by Crevoiser and Maillat (1991) the milieu
encompasses three elements: protagonists, productive capital and surroundings. The
protagonists include institutions (financial agents and education institutions), firms and
governmental authorities. The components of the productive capital are know-how, the
rules underneath, the behaviour of actors and the relational capital that results from the
relation between actors. The environment involves characteristics outside the *milieu* related to the market and the technology (Mota, 1997). Consistent with Maillat (1998), the *milieu* encompasses adjustments, changes and constant evolution and not only an agglomeration of actors. The *milieu* comprises both the capacity of cooperation between the actors particularly regarding innovation and the learning dynamic, which is the ability of actors to adjust to the transformations within and outside the *milieu*. The *milieu* encourages innovation because it reduces the uncertainty that is characteristic of technological processes and it promotes the knowledge sharing that enhances creative and innovative abilities (Mota, 1997).

The development of cultural activities (production and consumption) in certain territories require specific conditions like tangible and intangible agglomeration effects (reducing transaction costs, improvising knowledge, information flows, personal contacts), external economies and creative ambience (Costa *et al.*, 2011). It is essential to find an equilibrium between homogeneity and heterogeneity because, as we have seen, individual identification with the location and the building of an identity are also fundamental aspects of a creative *milieu* (Scott, 2006).

The interdependence between the city and the society is an improvement of the creative *milieu*, and the decisions taken by the government have an impact on social organizations. Dangschat (2005) says that creative *milieux* are characterized by a "culture of self-utilization". Changes in the working sphere through information and communication technologies brought about a new knowledge and work subject that the author defines as "work as life-style". We can identify three dimensions in a *milieu*: the level of the individual (value attitudes, life-style, actions, and perceptions); the level of the district (local); and the level of the network within the *milieu*. The individual level may be characterized by different kinds of capital - economic, cultural, social and symbolic capital. The district (or local) may consider three categories: the physical material writingness of functions; symbolic resources by communication with symbols and the plotting system; and the form of controlling social order. In respect to the network the participants are considered as the capital and are presented at the concrete place of the *milieu* (Dangschat, 2005).
3. A bibliometric study on music and economics

In order to have a more complete picture regarding the research that has been produced on music and economics, intending to have a more encompassing theoretical framework to deal with our main research goal, we conduct a bibliometric exercise on these issues.

To collect the database of published papers on music and economics, we have used Sciverse Scopus, from Elsevier, as search engine, considering only articles and reviews as document types and Social Sciences & Humanities as subject areas. To gather our database we jointly used the terms “economics” and “music” as search keywords in the following fields: articles’ title, keywords and abstract. We obtained a total number of 154 articles or reviews published between 1976 and 2014. Only some of the gathered articles are categorized following the JEL code. The majority has different classifications so it was not possible to identify a standard. Therefore, in addition, we will develop a deeper characterization of these articles in order to identify the research areas and the methods that are used.

Figure 1 - Number of published articles using as search keywords “economics” and “music”, 1976–2014

![Graph showing the number of published articles using as search keywords “economics” and “music”, 1976–2014.](http://www.scopus.com/)

Source: Scopus (http://www.scopus.com/), accessed on 22th of July.

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Scopus is a large international search engine for abstract and citation database of peer–reviews, including published articles, journals and documents. Data was accessed on July 2014.
We observe an increase of the absolute number of published articles / reviews up to 2010 but since 2011 this number has decreased (see Figure 1). However, comparing the number of articles gathered for both search keywords, “economics” and “music” with the number of articles from Scopus gathered using as keyword only “economics”, which would offer us the evolution of this particular research field in relative terms, it is not possible to identify a regular trend (see Figure 2).

**Figure 2 - Number of published articles using as search keywords “economics” and “music” as a % of published articles using “economics” as search keyword, 1976–2014**

![Figure 2](http://www.scopus.com/)

Source: Scopus (http://www.scopus.com/), accessed on 22th of July.

In Table 1 we list the journals that publish articles from this research area. We identify those that have published 2 or more articles. The journal with the largest number of published articles in this specific field is the *Journal of Cultural Economics*, with a 5 year impact factor higher than 1. We use this last indicator as a proxy for the quality of the journal as typically appears in the literature (e.g., Vieira et al., 2010). As says Vieira et al. (2010) the median impact factor for the social sciences journals is 0.5 (which embraces self-citations of authors) and the top 10% journal has an impact factor of 1.65. In Table 1 we have 3 journals with a 5 year impact factor higher than 1.65, so we may argue that these journals have a high quality classification. The majority of the remaining journals have values inferior to 1 but higher than 0.5 so the impact of these publications is more modest. Also from Table 1 it is possible to confirm the existence of

- 15 -
a rather disperse pattern of published research in this area since the residual category “Others” encompasses 114 articles, scattered by 114 different journals.

Table 1 - Top journals, 1976-2014

<table>
<thead>
<tr>
<th>Source Title</th>
<th>Number of articles</th>
<th>Percentage of total</th>
<th>5-Year Impact Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal of Cultural Economics</td>
<td>9</td>
<td>0.0584</td>
<td>2.099</td>
</tr>
<tr>
<td>Information Economics and Policy</td>
<td>3</td>
<td>0.0195</td>
<td>0.778</td>
</tr>
<tr>
<td>British Journal of Sociology</td>
<td>3</td>
<td>0.0195</td>
<td>2.170</td>
</tr>
<tr>
<td>Journal of Economic Education</td>
<td>3</td>
<td>0.0195</td>
<td>0.429</td>
</tr>
<tr>
<td>Journal of the History of Sexuality</td>
<td>3</td>
<td>0.0195</td>
<td>0.376</td>
</tr>
<tr>
<td>Management Science</td>
<td>3</td>
<td>0.0195</td>
<td>3.458</td>
</tr>
<tr>
<td>Business History</td>
<td>2</td>
<td>0.0130</td>
<td>0.603</td>
</tr>
<tr>
<td>Economic Inquiry</td>
<td>2</td>
<td>0.0130</td>
<td>1.264</td>
</tr>
<tr>
<td>Handbook of the Economics of Art and Culture</td>
<td>2</td>
<td>0.0130</td>
<td>N.C.</td>
</tr>
<tr>
<td>European Journal of Law and Economics</td>
<td>2</td>
<td>0.0130</td>
<td>0.341</td>
</tr>
<tr>
<td>Journal of Private Enterprise</td>
<td>2</td>
<td>0.0130</td>
<td>N.C.</td>
</tr>
<tr>
<td>Nineteenth Century Music</td>
<td>2</td>
<td>0.0130</td>
<td>N.C.</td>
</tr>
<tr>
<td>Taiwan Review</td>
<td>2</td>
<td>0.0130</td>
<td>N.C.</td>
</tr>
<tr>
<td>Tourism Economics</td>
<td>2</td>
<td>0.0130</td>
<td>0.901</td>
</tr>
<tr>
<td>Others</td>
<td>114</td>
<td>0.7403</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>1.0000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Scopus (http://www.scopus.com/), accessed on 22th of July.

In Table 2 we represent the most relevant researchers in this area. As we can see, Andressen, B., with 3 entries, is the researcher with the largest number of published articles. We only identify in the table authors with 2 or more published articles. Hence, as it is easy to verify, the majority of authors have only 1 published article. We can affirm that there is a large dispersion regarding the authors that publish in this research field.
Table 2 - Top authors, 1976-2014

<table>
<thead>
<tr>
<th>Author</th>
<th>Number of articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andersen, B</td>
<td>3</td>
</tr>
<tr>
<td>Lightbody, P</td>
<td>2</td>
</tr>
<tr>
<td>Cameron, S</td>
<td>2</td>
</tr>
<tr>
<td>Rogers, J</td>
<td>2</td>
</tr>
<tr>
<td>Siann, G</td>
<td>2</td>
</tr>
<tr>
<td>Stocks, R</td>
<td>2</td>
</tr>
<tr>
<td>Telang, R</td>
<td>2</td>
</tr>
<tr>
<td>Waldfogel, J</td>
<td>2</td>
</tr>
<tr>
<td>Walsh, D</td>
<td>2</td>
</tr>
<tr>
<td>Others</td>
<td>135</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
</tr>
</tbody>
</table>

Source: Scopus (http://www.scopus.com/), accessed on 22th of July.

In Figure 3 we represent the geographic area of the institution authors are affiliated by countries. The most important is United States with 64 articles, followed by the United Kingdom with 24.

Figure 3 - Authors’ affiliation by geographic origin, 1976-2014

Source: Scopus (http://www.scopus.com/), accessed on 22th of July.
As previously mentioned, from our search we gathered 154 articles published between 1976 and 2014. We have downloaded these articles and analysed each abstract. With this exercise we aim at categorizing these contributions according to main issues within music-economics. In what concerns main research issues, we first identify a large number of articles/reviews (25 in 154) focused on piracy of cultural products such as music, films or books. These particular articles offer potential measures to diminish the illegal distribution of these products such as the reduction of the price or the use of the method “pay what you want”. They also explore the predominance of piracy in different markets for example in China, Russia, among others. The discussion on legal changes that are needed to fight against these illegal acts is also common in these articles.

Second, we found a few articles about the supply and demand of creative products, analysing the reaction of consumers to price changes. Third, among the 154 articles/reviews we also found some articles that are related with the study of a population, its history, habits, and lifestyle and how these features are related with the chosen music. Fourth, there are published articles about computation and digitalization of music. Also, some articles contemplate the interaction between music and teaching, for example proposing the teaching of economics through music songs. A few articles or reviews also study the expansion of the supply of music festivals and how they can have impact on the development of a region, namely by improving tourism.

In sum up, with this bibliometric study we verify the inexistence of a regular trend regarding the number of published article/reviews. These articles are published in journals that have a reasonable quality according to the impact factor indicator. Finally, we observe a large dispersion in terms of the authors that publish in this research area. In what concerns authors’ affiliation, there is a clear dominance of United States and the United Kingdom.
4. The music industry in Porto and Portugal – a descriptive analysis

In 2008, a group of partners including Fundação de Serralves, Junta Metropolitana do Porto, Casa da Música and Sociedade de Reabilitação Urbana da Baixa Portuense developed a macroeconomic study about creative industries in region Norte of Portugal (Fundação Serralves, 2008). According to this report, region Norte has the capability to explore cultural, creative and innovative sectors. The study also states that this region is competitive both at the national and international levels, and is globally connected. Nevertheless, a low economic activity level within creative industries is documented, as well as an emerging development of the associated networks, the fragility of the distribution channels and the lack of specialized support infrastructures.

According to this study, the music industry has the largest potential of development within creative industries in region Norte. This conclusion derives from the assessment of the cultural and creative equipment available in the region and from the answers to the questionnaire that was implemented by this study. Both in the music industry as in other creative industries the overwhelming majority of the equipment belongs to the private sector, which justifies the fact that the ongoing process of clustering has been essentially structured by individuals or private groups. With this study it is possible to account for the fact that many of these spaces are spaces for experimentation, guided by spontaneity and flexibility (Fundação de Serralves, 2008).

Particularly in the music sector it is possible to identify some problems that affect its trajectory like the lack of infrastructures and organizations that support and encourage entrepreneurship, the long payback time, and, also the uncertainty associated with the survival of projects (Fundação Serralves, 2008). Since the physical proximity to infrastructures and to other creative and complementary activities, as well as to the market, are critical factors for a positive trajectory of this sector, it is essential to capture private funds to invest in these areas (Porter, 2000).

The study in focus also concludes that the most frequent marketing channel in the music sector is the Internet. Moreover, it also shows that leisure infrastructures, which includes bars, clubs and restaurants, represent one of the most important
dimensions (or at least the most visible) of this creative cluster. Additionally, most creative actors operate in the informal economy.

This study defines as “level 1” the firms that work directly in the sector of music and performing arts, which sums 91 firms in region Norte for the period 2008 (Table 3). This sector is mostly represented by micro firms in terms of volume of business. However, a small number of firms, eight out of 91 firms, represent almost forty percent of the volume of business. Firms that do not involve creative activities but are related to or support them correspond to “level 2” (e.g., management of performance spaces, editing and sound recording).

Table 3 - Music and Performing Arts Industry - region Norte, 2008

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of firms</td>
<td>91</td>
<td>27</td>
</tr>
<tr>
<td>Number of employees</td>
<td>169</td>
<td>116</td>
</tr>
<tr>
<td>Volume of business</td>
<td>11135</td>
<td>7961</td>
</tr>
<tr>
<td>(thousands of euros)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Fundação Serralves (2008)

4.1 The music industry in Portugal

Before characterizing the music field in Porto, we sum up the main statistical information about this sector in Portugal. As we can observe in Figure 4, the data for expenditures by municipalities on cultural activities and sports is not homogenous, and there are differences and variations between years and regions for the period 2002-2009 for all NUTS II. After 2009, this variable declined for all municipalities, which may be explained by the cutback in public budgets associated with the current economic crisis. We may also note that between 2002 and 2012, region Norte is responsible for the highest expenditure on cultural activities and sports among other Portuguese NUTS II (except for Lisboa in 2009).
Considering the percentage of expenditures on cultural and sports in Gross Domestic Product (GDP) (Table 4), we can observe that the municipalities of regions Norte, Centro, Algarve, Açores and Alentejo spend more than the Portuguese average. Additionally, in absolute terms (see Figure 4), there was also a decrease in the expenditure on cultural activities and sports in all municipalities during the last years in focus.

Table 4 - Expenditures on cultural activities and sports as a percentage of GDP (current prices), by NUTS II, 2002-2012 (%)
We can also observe an increase in the number of sold live show tickets (Table 5) and in the number of live show performances (Table 6) between 2011 and 2012 (the only available data). Additionally, we may notice that the music sector is the most important in terms of sold live show tickets in both years and that between 2011 and 2012 this relative importance has increased. Concerning live shows performances we can observe that the modalities of theatre and music are the most represented. But in this case, live shows performances, the modality of music is the second most represented.

Table 5 - Sold live show tickets by performance modality and type of performance, Portugal, 2011 and 2012

<table>
<thead>
<tr>
<th>Data reference period</th>
<th>Total</th>
<th>Theatre</th>
<th>Opera</th>
<th>Music</th>
<th>Recitals and choirs</th>
<th>Dance</th>
<th>Folklore</th>
<th>Circus</th>
<th>Mixed (varieties)</th>
<th>Multidisciplinary</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>3424615</td>
<td>911449</td>
<td>58245</td>
<td>1685142</td>
<td>12277</td>
<td>159336</td>
<td>7677</td>
<td>139333</td>
<td>101164</td>
<td>325152</td>
<td>24840</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>27%</td>
<td>2%</td>
<td>49%</td>
<td>0%</td>
<td>5%</td>
<td>0%</td>
<td>4%</td>
<td>3%</td>
<td>9%</td>
<td>1%</td>
</tr>
<tr>
<td>2012</td>
<td>3450148</td>
<td>822892</td>
<td>32256</td>
<td>1994435</td>
<td>6748</td>
<td>155383</td>
<td>6527</td>
<td>161490</td>
<td>72598</td>
<td>173973</td>
<td>23846</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>24%</td>
<td>1%</td>
<td>58%</td>
<td>0%</td>
<td>5%</td>
<td>0%</td>
<td>5%</td>
<td>2%</td>
<td>5%</td>
<td>1%</td>
</tr>
</tbody>
</table>


Table 6 - Live shows performances (No.) by performance modality (2011 and 2012) and type of performance; Annual

<table>
<thead>
<tr>
<th>Data reference period</th>
<th>Total</th>
<th>Theatre</th>
<th>Opera</th>
<th>Music</th>
<th>Recitals and choirs</th>
<th>Dance</th>
<th>Folklore</th>
<th>Circus</th>
<th>Mixed (varieties)</th>
<th>Multidisciplinary</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>25871</td>
<td>12174</td>
<td>126</td>
<td>8576</td>
<td>552</td>
<td>1056</td>
<td>616</td>
<td>167</td>
<td>988</td>
<td>1113</td>
<td>503</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>47%</td>
<td>0%</td>
<td>33%</td>
<td>2%</td>
<td>4%</td>
<td>2%</td>
<td>1%</td>
<td>4%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>2012</td>
<td>27566</td>
<td>11599</td>
<td>128</td>
<td>9918</td>
<td>528</td>
<td>1171</td>
<td>660</td>
<td>168</td>
<td>732</td>
<td>2247</td>
<td>415</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>42%</td>
<td>0%</td>
<td>36%</td>
<td>2%</td>
<td>4%</td>
<td>2%</td>
<td>1%</td>
<td>3%</td>
<td>8%</td>
<td>2%</td>
</tr>
</tbody>
</table>


It is also important to collect information about spaces that are available to welcome events such as concerts and music shows. As we can observe in Table 7 there
are multiple rooms that can host live shows. The most frequent are auditoriums, while the supply of coliseums is minimal. In Porto between 2010 and 2011 we can observe a decline in the number of available rooms and the same effect happens in Lisboa and in Portugal in general.

**Table 7 Rooms/ spaces of precincts of performances by NUTS and type of room/ space**

<table>
<thead>
<tr>
<th>Data reference period</th>
<th>Geographic localization (NUTS - 2002)</th>
<th>Type of room/ space</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Auditorium</td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portugal</td>
<td>500</td>
<td>219</td>
</tr>
<tr>
<td>Norte</td>
<td>128</td>
<td>76</td>
</tr>
<tr>
<td>Centro</td>
<td>119</td>
<td>51</td>
</tr>
<tr>
<td>Lisboa</td>
<td>144</td>
<td>49</td>
</tr>
<tr>
<td>Alentejo</td>
<td>60</td>
<td>21</td>
</tr>
<tr>
<td>Algarve</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>Açores</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Madeira</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Portugal</td>
<td>485</td>
<td>186</td>
</tr>
<tr>
<td>Norte</td>
<td>116</td>
<td>56</td>
</tr>
<tr>
<td>Centro</td>
<td>112</td>
<td>45</td>
</tr>
<tr>
<td>Lisboa</td>
<td>133</td>
<td>44</td>
</tr>
<tr>
<td>Alentejo</td>
<td>68</td>
<td>20</td>
</tr>
<tr>
<td>Algarve</td>
<td>28</td>
<td>9</td>
</tr>
<tr>
<td>Açores</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Madeira</td>
<td>17</td>
<td>10</td>
</tr>
</tbody>
</table>


*Entertainment venues survey.*

### 4.2 Findings and analysis

This study aims to identify the existence of a music cluster in Porto, namely if music schools and music halls are connected and how these entities interact with others.

### 4.3.1 Collecting information

In order to collect information about the actors who have been interacting in the music cluster in Porto, we started by identifying the music schools, music halls and bars with live shows that exist in Porto. We use Páginas Amarelas that allowed us to identify 16 music schools, 14 music halls and 9 bars that organize live music shows in Porto (Annex 1).
In a second stage we implemented a survey to these entities. For this implementation, first, during May, we send the inquiries by email to identified actors but we only received two answers. Then, we proceeded with phone contacts during the first week of June. With this approach we were able to gather more answers but they were no enough. In a third stage, we have contacted personally these entities to implement the inquiry. Table 8 synthesizes this information.

Table 8 - Sample vs number of answers, Porto, 2013

<table>
<thead>
<tr>
<th>Type of entity</th>
<th>Sample</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Schools</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>Music Halls</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Bars</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

Taking into account the aim of this study - to identify the existence or not of relations between actors like music schools, music halls, bars and other institutions - we have elaborated two inquiries: one to collect information about music schools (see Annex 2) and the other to collect information about music halls and bars with live shows (see Annex 3).

The inquiry for music schools is composed by four groups of questions:

I – Characterization of the Music School;

II – Promotion of the student through concerts;

III – Description of the relationship with older students;

IC – Characterization of the relations with other entities.

On the other hand, the inquiry for music halls and bars has three groups of questions:

I – Characterization of the institution;

II - Information about the actors in the institution;

III - Characterization of the relations with other entities
4.3.2. Results

In order to analyse the answers to the implemented inquiries we use a battery of descriptive statistics that allow the characterization of the main actors in the music cluster.

The inquiry implemented in Music schools allows for the identification of the available courses, the number of students allocated to these courses and the available annual vacancies. This inquiry also includes questions which intend to understand the relations between Music schools and other actors who also act in the music cluster of Porto such as Music halls and Bars. After gathering the information from the inquiries implemented in the Music schools, we systematize the following results.

In Figure 5 we depict the size of schools in terms of number of students. As we can see there are schools with a small number of students (around 30) and schools with a large number of students (maximum 1053).

Figure 5 - Number of students in each school, Porto, 2013
We also inquired the schools about the available annual number of vacancies. The majority does not impose a limit. Exceptions are Conservatório de Música do Porto (80), Escola Superior de Educação – Instituto Politécnico do Porto (15) and Escola de Jazz do Porto (100). The number of students and the number of workers in school, positively related, are depicted in Figure 6.

Figure 6 - Number of students vs. number of workers, Porto, 2013

All together the several inquired schools offer thirty nine different kinds of courses, although these schools do not offer all courses and not all of them assign official degrees (degrees correspond to a scale from 1 to 8). In our sample there are two schools with an extensive supply of courses: Rockschool – Jahas, Academia de Música de Costa Cabral, Escola Valentim de Carvalho and Conservatório de Música do Porto. As we can see in Table 9 among the ten schools that have answered the inquiry only three do not assign any degree.
The courses with a higher supply (in ten schools, there are four or more that teach these courses) are clarinet, contrabass, drums, flute, guitar, piano, saxophone, trumpet, violin, violoncello, band, vocals and music teaching (see Figure 7). There is also a school that offers courses in music teaching/music education - *Escola Superior de Educação* - whose educational *curriculum* also integrates a Master in music education (in the region of *Porto* there are other institutions that offer this type of course (*Escola das Artes - Universidade Católica do Porto*) but they were not available to answer our survey).

**Figure 7 - Number of schools that offer each course, *Porto*, 2013**
Shows are relevant for the students’ future careers, offering an opportunity for the presentation of their work. All the music schools that have answered our inquiry organize concerts/shows to announce their students. In Table 10 we can register the number of concerts done inside these schools’ facilities; out of the schools; and inside or outside Porto (not all schools identify the number of concerts promoted but they answer yes or no to our question). Most schools organize concerts inside their facilities, with the exceptions identifying the lack of space as the main reason for organizing shows outside. As we may observe, these schools also organize concerts in Music halls inside and outside of Porto, mostly within Porto region.

<table>
<thead>
<tr>
<th>Schools</th>
<th>Inside the School</th>
<th>In Music Halls in Porto</th>
<th>In Music Halls outside of Porto</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escola de Música do Marquês</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Rockschool - Jahas</td>
<td>Yes(10)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>A pauta</td>
<td>Yes(10)</td>
<td>Yes(5)</td>
<td>Yes(1)</td>
</tr>
<tr>
<td>Rockschool - Teclarte School</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Academia de Música Costa Cabral</td>
<td>Yes(130)</td>
<td>Yes(14)</td>
<td>Yes(4)</td>
</tr>
<tr>
<td>Curso de Música Silva Monteiro</td>
<td>Yes(46)</td>
<td>Yes(19)</td>
<td>Yes(1)</td>
</tr>
<tr>
<td>Escola Valentim de Carvalho</td>
<td>Yes(30 a 40)</td>
<td>Yes(12 a 20)</td>
<td>Yes(3)</td>
</tr>
<tr>
<td>Conservatorio de Música do Porto</td>
<td>Yes(200)</td>
<td>Yes(32)</td>
<td>Yes(8)</td>
</tr>
<tr>
<td>Escola Superior de Educação - Politécnico</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Escola de Jazz do Porto</td>
<td>Yes(12)</td>
<td>Yes(36)</td>
<td>Yes(24)</td>
</tr>
</tbody>
</table>

An important issue that we aim to explore with the inquiry to Music schools concerns potential relations between students and schools after students finish their courses. Most schools invite some of their graduated students to teach or to play in concerts. We cannot identify a standard for all schools but we can state that there is a common feature concerning the preservation of a relation with graduated students (see figure 9)
In what concerns the relations with other entities, most schools categorize the relation with music halls as relevant and only Escola Valentim de Carvalho considers the relation with bars as relevant. The relationship with the City Hall is not consensually assessed by the inquired schools: some identify it as null and others consider it as relevant. The same thing happens regarding the relations with other institutions like Fundação Serralves (see figure 9)

Figure 8 - Relation of music schools with other entities, Porto, 2013

The second inquiry is implemented in actors like music halls and bars in order to understand the influence of their location in the establishment of connections with other actors. As we can observe in Figure 10 the capacity of the music halls and bars is diversified (between 100 and 380) and most of all are seating places. It is also relevant to refer that the larger music halls in Porto like the Coliseum, Casa da Música and Pavilhão Rosa Mota did not answer our inquiry.
As we can observe in Figure 11, and considering our samples, entities like Mosteiro São Bento da Vitória, Teatro Carlos Alberto – TECA, Teatro Nacional São João and Armazém do Chá are responsible for the largest number of concerts that occurred in Porto in 2013.

Figure 11 - Number of concerts, Porto, 2013

With the inquiry we also tried to understand if the concerts were performed by actors who are Portuguese and how frequently they act in the same space. Most of the
institutions affirm that they do not contract the same person frequently, only the bar Maus Hábitos answers with a rate of 5% for residents. Typically, the concerts are made for non-residents. In respect of the concerts that are made by foreign individuals, institutions like Mosteiro São Bento da Vitória, Teatro Carlos Alberto, Teatro Nacional São João and Armazém do Chá confirm that 50% or more are performed by foreign persons. Others like Teatro Municipal Campo Alegre and Teatro Helena Sá e Costa affirm that 20% of the performers do not have the Portuguese nationality. These two institutions also assert that 80% of the musicians are resident in region of Porto. All of this statistics can be conferred in Table 11.

Table 11 - Type of contracted artists by music halls and bars, Porto, 2013

<table>
<thead>
<tr>
<th>Music Halls</th>
<th>Residents</th>
<th>Foreign</th>
<th>Resident in region of Porto</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSBV, TECA &amp; TNSJ</td>
<td>0%</td>
<td>59%</td>
<td>12%</td>
</tr>
<tr>
<td>Teatro Municipal Campo Alegre</td>
<td>0%</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>Teatro Helena Sá e Costa</td>
<td>0%</td>
<td>0%</td>
<td>Não respondeu</td>
</tr>
<tr>
<td>Maus hábitos</td>
<td>5%</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>Armazém do Chá</td>
<td>0%</td>
<td>50%</td>
<td>Não respondeu</td>
</tr>
<tr>
<td>Culturgest Porto</td>
<td>0%</td>
<td>42%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Finally, we tried to categorize the relations that these actors have with others entities. The relationship with music schools was classified as median or high by music halls and null or low by bars. Additionally, the relations with the City Hall were classified as median or high. The same thing occurs mostly with the relation with other institutions. In respect of the relation between music halls and bars, it was classified by both actors as low or median (see Figure 12).

Figure 12 - Relations between music halls and bars with other entities, Porto, 2013
In sum, we may argue that there is a strong connection between music schools and music halls mostly focused on students’ performances. Most of these shows do not have a financial return because tickets are free. When students finish their courses they keep connected with the school mostly due to invitations to lecture or to perform shows.

4.3. 3. Final Perceptions

Music is a creative industry and our goal is to analyse the music cluster in the region of Porto. As said by Florida (2002), the geographic concentration of people may induce development and economic growth due to gains of efficiency. Also, a cluster is a system of interconnected firms, where players benefit from concentration and relationships. So, it is important to verify if the actors who performed in the music cluster of Porto cooperate with which other to create efficiency and economic value.

Musicians are categorized within the class of creative people. As Cohendet et al. (2010) say a creative city is more the accumulation of people’s talents than urban orientation to creativity. So, the students of music or other musicians that belong to the underground are the centre piece of this puzzle; they are the workforce.

In the upperground we find institutions that have financial and unification capacity to create new knowledge, so in this group we find music schools. In the middleground we find intermediaries, where creative knowledge is formalized and creative products (music productions) turn into new services consumable for the population. Music halls and bars belong to this group.

The music cluster in Porto could be described as a network where the nodes would be the actors and the ties would represent the relations between these actors. In a first phase of our research we intended to use the methodology Social Network Analysis to discover some cohesive groups between the actors and illustrate their relations through a network. However, to implement this technique it was necessary to collect individual data about actors working on music in Porto and, their interaction with all the other actors. During the implementation of the inquiry it was not possible to collect
information about individual relations of the actors with each other. Thus this method was abandoned.

Despite this important limitation, based on the information collected with the inquiries, we may argue that the actors who act in the music field of Porto are related to each other. We were able to identify that Music schools establish contacts with Music halls to reveal their students. The Music halls also classified the relation with Music schools as relevant. They also classified the relations with Council Hall and with other entities as important. So, we may sustain that there is a network between the actors related to music who act in Porto. Music is a creative industry and our goal is to analyse the music cluster in the region of Porto. As said by Florida (2002), the geographic concentration of people may induce development and economic growth due to gains of efficiency. Also, a cluster is a system of interconnected firms, where players benefit from concentration and relationships. So, it is important to verify if the actors who performed in the music cluster of Porto cooperate with which other to create efficiency and economic value.

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5. Concluding Remarks

The concept of creativity only recently started to be addressed in economic analysis (Cohendet et al., 2009). Creativity aims to change the way we produce things or the rules of use. These rules may be broken because the process of production cannot be codified. It aims to produce new knowledge or a different combination of the knowledge that already exists, thus leading to invention or to creativity (Cohendet et al., 2009). This concept is dissimilar from innovation or invention but all the three complete the process of innovation. Innovation is the process of bringing new ideas to the market (Schumpeter, 1942) and invention is the foundation of innovation (Cohendet et al., 2009). All of these processes require time and the conjunction of knowledge, skills and resources (Fagerberg et al., 2005).

For our study we considered that it was important to explore concepts related to creativity such as creative economy, creative industries and creative cities. Florida (2002) states that the geographic concentration of people may induce development and economic growth. Thus, due to gains of efficiency, the author understands cities as sources of creativity and innovation because they are cauldrons of diversity and difference. Creative cities normally combine creative industries and the cultural economy even if they occupy different corners of the city (Cooke et al., 2008). Creative industries depend on the creativity, skills and talent of individuals that have the potential to create wealth and jobs through developing and exploiting intellectual property. The ideas embodied in individuals are the most significant inputs, rather than property or capital, in a creative economy. Thus, individuals are the centre piece of the creative process and production. The central question of our study was to analyse the existence of a music cluster in Porto. In order to sustain our analysis we have revised the crucial concepts of cluster (e.g., Porter, 2000) and milieu (Camagni, 1991). We have also implemented a bibliometric study provide a quantitative perspective concerning the research related with music and economics, and to understand what kind of articles or reviews are published in this research field. We collected information from Scopus database, using as keywords economics and music, and we systematized the information about the evolution of the number of articles/reviews that were published, the journals where these articles were published, the main authors and their
geographical affiliation. The analysis of the abstracts of the 154 articles/reviews allowed us to conclude that a significant fraction contemplates themes like piracy of cultural products such as music, films or books. There is then a significant dispersion concerning research topics within this field that goes from studies on price elasticity to the analysis of the interaction between music and teaching, festivals and tourism related to music.

In the second part of this dissertation we describe and analyse the music industry in Portugal. According to a macroeconomic study about creative industries in region Norte of Portugal, the region of Norte has the capability to explore cultural, creative and innovative sectors namely the creative industry of music. This conclusion derives from the assessment of the cultural and creative equipment available in the region that mostly belong to private sector (Fundação Serralves, 2008). With data collected in Instituto Nacional de Estatística (INE), Statics of Portugal (http://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_base_dados), accessed on 3rd of April., we analyzed the available infrastructures and expenditures allocated to the music sector in Portugal, also at a regional level.

To complete our study and answer our main research question focused on the music cluster in Porto and on how its actors work Porto and interact, we implemented two inquiries. One of the inquiries was implemented in Music School, aiming to do a characterization of these schools and to understand how they interact with other intuitions and promote their students. The other one was implemented in Music halls and Bars, aiming to characterize these organizations, in particular in what concerns their relations with the actors of this music cluster.

As a conclusion, we consider that there are significant relationships between the actors that operate in Porto music cluster. We observed that Music schools establish contacts with Music halls to produce shows. And both intervenient - Music schools and Music halls - consider relevant their relations with each other and with the Council Hall.

In a future research stage, we intend, first, to collect more and better information about these actors and, second, with this broader information, draw the network that exists between these actors using the tools of Social Network Analysis.
References


Cooke, P. and Lazzeretti, L. (2008), Creative Cities, Cultural Clusters and Local Economic Development, Cheltenham (UK) and Northampton (USA), Elgar Reference Collection.


Swann, P. (2009), The Economics of Innovation – An introduction, Cheltenham (UK), Edward Edgar.


Annexes:

Annex 1 – List of the actors of the music cluster in Porto

Music schools
A pauta
Academia de Música de Costa Cabral
Conservatório de Música do Porto
Curso de Música de Silva Monteiro
Escola das Artes (Universidade Católica do Porto)
Escola de Jazz – Jazz no Norte
Escola de Música da Foz
Escola de Música do Marquês
Escola de Música Guilhermina Suggia
Escola Superior de Educação – Instituto Politécnico do Porto
Escola Valentim Carvalho
ESMAE (Instituto Politécnico)
Instituto Musical Portuense
Instituto Orff do Porto
Rockschool-JAHAS
Rockschool-Teclarte School - Academia de Musica

Music halls
Balleteatro Auditório
Casa da Música
Casa das Artes

Centro de Cultura e Congressos - Ordem dos Médicos

Coliseu do Porto

Estúdio Zero

Hard Club

Maus Hábitos - Espaço de Intervenção Cultural

Mosteiro de São Bento da Vitória

Palácio da Bolsa

Passos Manuel

Pavilhão Rosa Mota

Rivoli Teatro Municipal

Teatro Art’Imagem - Espaço Tzero.com.palco

Teatro Carlos Alberto - TECA

Teatro da Vilarinha

Teatro de S. João

Teatro do Bolhão / Academia Contemp do Espectáculo

Teatro Helena Sá e Costa / (ESMAE)

Teatro Latino

Teatro Municipal . Campo Alegre

Teatro Sá da Bandeira/Sala Houdini

Teatro Seiva Trupe no Porto

Bars with music live shows

Armazém do Chá

Bar das Cardosas
Casa do Livro

Culturgest *Porto*

Hot Five Jazz&Blues Club

Labirintho

O Meu Mercedes é Maior Que o Teu

Plano B

Real Feitória no *Porto*

Tribeca Jazz Club & Restaurante
Annex 2 – Inquiry to Music schools

Instituições de Ensino de Música no município do Porto

Os dados fornecidos serão usados exclusivamente para fins académicos, estando garantida a confidencialidade dos mesmos.
Por favor responda a todas as questões.

A. Dados da instituição

<table>
<thead>
<tr>
<th>A1. Nome inquirido:</th>
<th>A2. Função na instituição:</th>
</tr>
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A6. Cursos, graus e número de alunos

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<td>Acordeão</td>
<td>Sim</td>
<td>1</td>
<td>Órgão</td>
<td>Sim</td>
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<td>Baixo</td>
<td>Sim</td>
<td>3</td>
<td>Piano</td>
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<tr>
<td>Baixo Elétrico</td>
<td>Sim</td>
<td>5</td>
<td>Saxofone</td>
<td>Sim</td>
<td>6</td>
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<tr>
<td>Bambolim</td>
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<td>7</td>
<td>Violino</td>
<td>Sim</td>
<td>8</td>
</tr>
<tr>
<td>Bateria</td>
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<td>9</td>
<td>Banda/Classe conjunto</td>
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<td>Clarinete</td>
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<td>Ensino de Música</td>
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<td>Jazz</td>
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<td>Som e Imagem</td>
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<td>Tecnologias Digitais</td>
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<td>Outras</td>
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<td>Oboé</td>
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<td>Guitarra Elétrica</td>
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<td>23</td>
<td>B1. Realizam espetáculos com os atuais alunos</td>
<td>Não</td>
<td>Sim</td>
</tr>
<tr>
<td>Guitarra Portuguesa</td>
<td>Sim</td>
<td>24</td>
<td>Nº de espetáculos em 2013</td>
<td>25</td>
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<tr>
<td>Harpa</td>
<td>Sim</td>
<td>26</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oboé</td>
<td>Sim</td>
<td>28</td>
<td>29</td>
<td></td>
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</tbody>
</table>

Legenda: L = Licenciatura, M = Mestrado; D = Doutoramento

B. Promoção dos alunos

<table>
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</tbody>
</table>
### C. Relacionamento com antigos alunos

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<thead>
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<th>Baixo</th>
<th>Médio</th>
<th>Alto</th>
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<tbody>
<tr>
<td><strong>C1. Realização de espetáculos</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>C2. Docência</strong></td>
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<tr>
<td><strong>C3. Outras atividades:</strong></td>
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### D. Relação da instituição com outras entidades

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<th>Médio</th>
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<tbody>
<tr>
<td><strong>D1. Articulação com outras instituições de ensino da música no Porto</strong></td>
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<td><strong>D2. Articulação com casas de espetáculo no Porto</strong></td>
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<td><strong>D3. Articulação com bares no Porto</strong></td>
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<tr>
<td><strong>D4. Articulação com a Câmara Municipal do Porto</strong></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td><strong>D5. Articulação com outras entidades do Porto (e.g. Fundação Serralves)</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Annex 3 – Inquiry to Music halls

Casas de espetáculo no município do Porto
Os dados fornecidos serão usados exclusivamente para fins académicos, estando garantida a confidencialidade dos mesmos.
Por favor responda a todas as questões.

A. Dados da empresa
A1. Nome inquirido: 
A2. Função na instituição: 
A3. Lotação: _______ Sentados: _______ Em pé: _______
A5. Volume de vendas (euros) (2013): _______

B. Artistas contratados no ano de 2013
Por favor identifique:

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<tr>
<th></th>
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<tbody>
<tr>
<td>B1. Nº total de artistas que atuaram</td>
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<td></td>
</tr>
<tr>
<td>B2. Nº de artistas residentes/fixos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B3. Nº de artistas estrangeiros</td>
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<td></td>
</tr>
<tr>
<td>B4. Nº de artistas residentes no Porto</td>
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</table>

C. Relação com outras entidades

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<thead>
<tr>
<th>Como avalia o grau de interligação com outras entidades?</th>
<th>Nulo</th>
<th>Baixo</th>
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<td>[ ]</td>
</tr>
<tr>
<td>C2. Articulação com outras casas de espetáculo e/ou bares no Porto</td>
<td>[ ]</td>
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</tr>
<tr>
<td>C3. Articulação com a Câmara Municipal do Porto</td>
<td>[ ]</td>
<td>[ ]</td>
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<td>[ ]</td>
</tr>
<tr>
<td>C4. Articulação com outras entidades (e.g. Fundação Serralves)</td>
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<td>[ ]</td>
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</tbody>
</table>