CHAPTER 7

Bottom-up Initiatives of Economic and Symbolic Innovation in Oporto City Centre

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Introduction

Knowledge and innovation production processes have an increasing attention in the academia, the business sector and in public decision due to the recognition of its importance to economic growth, in particular, and the development of societies, in general.

Processes of creation, diffusion and application of knowledge are considered the driving force of economic dynamics at different scales and recognized as a source of innovation. In scientific literature innovation is considered a key factor of economic growth and competitiveness of territories. Cities are characterized by high concentration and diversification of economic activities and people, which provides prone environments to generation, dissemination and accumulation of knowledge and innovation. They attract talent, knowledge-intensive investment and are friendly places to creativity, innovation and entrepreneurship.

The structure and organization of the economy of cities result from individual actions of many economic agents (individuals, families, business, government institutions, diversified organizations), as well as from the network of relationships established between them. Entrepreneurship initiatives of private sector has been of particular attention to researchers and policy makers due to the recognition that they are essential for the development and economic growth, job creation and innovation. The scientific literature explains entrepreneurship as a product of local context and characteristics of individuals. The territories are endowed with different infrastructures of knowledge, institutions and resources. Individuals are heterogeneous with regard to knowledge, skills, values and preferences that guide their motivations and behaviors. Thus, the entrepreneurship process depends on the opportunities offered by territories and the capacity and motivation of individuals to identify, evaluate and exploit these opportunities. In other words, for people with the same individual characteristics territorial context can make a difference in the extent that can favor an entrepreneurial attitude or, on the contrary, inhibit it (Boschma & Martin 2010; Bosma & Sternberg 2014). Urban areas are particularly privileged in what concern to the existence of favorable conditions for entrepreneurial process. Characterized by a high population density and a strong flow of people (inhabitants, workers, students, visitors), they facilitate the increase and diversification of demand and the access to inputs needed for production of goods and services (financial capital, labor force, suppliers, among others) (Garcia 2014).
As is characteristic of European cities, retail sector is linked to Oporto from its beginning, being a key aspect in understanding the development of city in general and in particular of its centre (Fernandes 1997).

It is our aim to analyze bottom-up initiatives of economic entrepreneurship in Oporto city centre through the approach of urban agents related to retail sector. Our results are based in 24 semi-structured interviews, made during 2015, to entrepreneurs of different types and formats of economic activity. Respondents were owners, managers or employees of fixed establishments and responsible for management and organization of urban markets.

This work is structured this way: first its approached some important ideas about theory, analytical models and public strategies in what concerns to economic development and innovation; in a second point are presented the main challenges faced nowadays by cities and the issues related to entrepreneurship and bottom-up initiatives for local economic development; in the following point is explained the case study discussed in this paper; and finally, some conclusions are systematized.

Economic development and innovation: theory, analytical models and public strategies

Recognition of the importance of knowledge and innovation production processes for the development of societies, in general, and for economic growth, in particular, is at the root of growing attention given to them in the context of academic research, business sector and public decision. With the advancement of economies and societies, knowledge matter even more and in ways that are not always predictable or controllable. The well succeed performance of developed and developing economies depends increasingly on knowledge (Carayannis & Campbell 2011).

Knowledge is considered the driving force of economic, social and technological dynamics at different scales and recognized as a source of innovation (van Geenhuizen & Nijkamp 2012). There is a broader body of scientific literature where it is argued that innovation is a key factor of economic growth and competitiveness of territories (Carayannis & Grigoroudis 2014; Dabic et al. 2011). Innovation is a phenomenon inherent to human development. The emergence of innovations capable of changing people's behavior, working methods and the labor market characterize the history of mankind (Galindo & Méndez 2014). It has become increasingly important to meet the societal challenges of our time. Ideas, creativity, skills and ability to solve problems are considered driving forces of innovation (Saari et al. 2015).

Innovation is often linked to the creation of a sustainable market around the introduction of new or improved products or processes. A broader interpretation refers innovation as an idea, practice or material artifact adopted by individuals or organizations. It tends to change perceptions and relationships at the organizational level. But in its wider context (socio-technical, economic and political) can significantly impact, shape and evolve the way people live their lives, how business are created, managed and how they perform, and how nations thrive or decline (Carayannis & Campbell 2011).

The geography of innovation is complex and the capability to pass from knowledge to innovation and innovation to economic growth is different from region to region (Camagni & Capello 2013). The great development of the theoretical framework around innovation took place since the 50s of twentieth century and was around 30 years after, in academia, with the development of innovation systems studies, that the processes and dynamics of innovation were explained as a result of networks of interaction between agents - companies, universities and laboratories, government, schools and other intermediary institutions. It is consensual that the innovation process is the transformation of knowledge into goods, services or processes and is the result of the activity of different agents and the network of relationships between them (Salavisa & Fontes 2012).

Networks facilitate the flows of information and knowledge, the access to resources, the reduction of transaction costs, the influence of agents, the promotion of reputation and social recognition or the enhancement of personal or group qualities. The social capital can be seen as the sum of current and potential resources that a person or organization can access or derive through network integration (Soetanto et al. 2012). In scientific literature have been discussed explanatory models of these processes in an attempt to create analytical frameworks that constitute a reference for the analysis and understanding of knowledge and innovation production in different fields of knowledge or geographical areas. Models became more complex over time, due to the consideration of multiple actors and factors involved. Some authors argue in favor of co-existence and co-evolution of different analytical models in a given innovation system of a given area (Carayannis & Campbell 2011).

Classic in terms of formulation, the linear model of innovation gives a simplistic view of the production and use of knowledge. The emergence of more complex models, based not only on the interactions between multiple agents as well on their territorialization, derived from the growing need of intermediation generated as relations became more complex and multifaceted (Alexander & Martin 2013). In summary, the linear model of innovation explains the production of innovation through the succession of stages: the fundamental research of universities becomes applied research of institutions related to the academy; in turn, applied research is adopted and transformed into experimental development that is put on the market by companies. In nonlinear models of innovation, basic research, applied research and experimental development are developed in parallel, occurring interaction between the different actors involved throughout the process (Carayannis & Campbell 2011). There are various approaches in terms of non-linear innovation models (Carayannis & Campbell 2011).

In 1996, Loet Leydesdorff and Henry Etzkowitz presented the model of Triple Helix as an analysis tool of the dynamics associated with knowledge-based economies and innovation systems. In terms of formulation, the model can be seen by two different sides: as neo-institutional model it reflects the relationships and exchanges among different institutions and as neo-evolutionary model it translates the mechanisms of exchanges between three different functions – creation of wealth, knowledge production and regulatory control (Leydesdorff 2012). Each of the propellers acts reflexively in response to the actions of the other two. The knowledge-based economies and innovation systems evolve depending on the actions and mutual adjustments. The university represents the role of knowledge creation and intellectual capital and reflects the academic leadership; the industry is the creation of economic wealth and reflects the business strategies, and government institutions represent normative control function and regulation of the public sphere (Leydesdorff et al. 2006; Leydesdorff & Meyer 2006; Leydesdorff & Meyer 2007).
The model of the Triple Helix is considered today a classic perspective (Alexander & Martin 2013). Based on the analytical model of Leydesdorff and Etzkowitz, Carayannis and Campbell (2011) present two more comprehensive models to explain the advanced innovation systems. Each model comprises the models less comprehensive (Figure 1).

Figure 1 – Framework of triple, quadruple and quintuple helix models

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<th>Quintuple Helix Model</th>
<th>Quadruple Helix Model</th>
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| - Societies and economies environment | - Civil society and citizens (shaped by culture and the media) | - University
- Industry
- Government |

Source: Adapted of Carayannis & Campbell (2011, p. 343)

The Quadruple Helix model adds, to the three original propellers, civil society and the public, shaped by cultural characteristics and the media. In this model, emphasis is given to the culture of knowledge and knowledge of the culture and to the values of society and their lifestyles. The sciences and the arts are placed in the same importance plan. The model refers to the structures and processes of the glocal knowledge-based economy and society. It brings to the discussion issues related to the democracy of knowledge. The Quintuple Helix model adds the ambience of societies (social ecology) and economies as the driving force of progress in knowledge production processes and innovation systems. The innovation ecosystem contextualizes Quadruple and Quintuple Helix models. It combines and integrates social and natural systems and environments, stressing the importance of diversity of agents. This can result in democracy of knowledge led by the pluralism of different paradigms in terms of knowledge and innovation (Carayannis & Campbell 2011).

Science and technology are increasingly considered as main sources of sustainable and competitive advantages for regions and nations. However, the determining factor for its effectiveness is the quality and quantity of entrepreneurship-enabled innovation to unlock and capture the financial benefits of science in the form of private, public or hybrid goods (Carayannis & Campbell 2011). Consequently, we are increasingly involved in a globalized knowledge-based economy, marked by increasing turbulence, uncertainty and ambiguity. This new reality began to emerge in the 90s of the twentieth century. When Information and Communication Technologies (ICT) have revolutionized communications, facilitating access and wide dissemination of knowledge. In the theoretical literature, this revolution has been widely studied and new ways of producing innovation are highlighted. The open innovation is one of that forms (Johannessen & Olsen 2010). It has deserved particular attention in recent years not only by academia and policymakers but also by the business sector (Papadopoulos et al. 2013).

All organizations from different sectors of activity use any product or process that directly influences its competitiveness, which motivates them to get the innovation they need or that contributes to its efficiency internally or externally (Robertson et al. 2012).

Since, in 2003, Henry Chesbrough published a paper on this issue, open innovation is being debated not only in the domain of innovation management, but also in others areas of knowledge. Although there is no single and completely clear definition of concept, as the name indicates, the base premise is the opening of innovation process to the outside, in a movement that takes place in both directions - inside knowledge flows from organizations or business to the outside and the outside knowledge flows to the inside of organizations or business - with the aim of accelerating internal production of innovation and expand markets where innovation is placed (Huizingh 2011).

Open innovation reflects the free transfer of knowledge between multiple partners (Alexander & Martin 2013). But it depends not only on circulation of knowledge as well as its incorporation by organizations or business and its effective application (Robertson et al. 2012). It is related to the collective intelligence (involvement in communities where is possible to deal with different ways of thinking and acting) and with participation in innovative communities that relate voluntarily (Papadopoulos et al. 2013).

Carayannis wrote about open innovation diplomacy, in the context of Quadruple and Quintuple Helix models, arguing that it is the concept and practice of shortening distances and minimizing obstacles (cultural, socio-economic, technological) through initiatives that promote the connection of ideas and solutions, evaluated and potentiated by the markets and investors. In this sense, open innovation diplomacy qualifies a new strategy, a new way of doing politics and a new governance approach (Carayannis & Campbell 2011).

Cities and economic development

Challenges and local responses

Cities of developed countries made the transition to knowledge-based economies mainly in the 80s of the twentieth century. Contours of these economies are different depending on the characteristics of cities (van Geenhuizen & Nijamp 2012).

In the 90s of the twentieth century, the dynamics and impacts of economic globalization became particularly evident, and instead of a loss of importance of local in new geographies of global influence, it occur the affirmation of local on global and of global on local. Glocalization, in the interconnection between the different scales of action and influence, has become one of the most important phenomenon of contemporaneity (Seixas maio 2013). As a process of interpenetration of convergent systems, networks and innovation sectors, driven increasingly by complex, non-linear and dynamic processes of creation, dissemination and use of knowledge, glocalization confronts us with the need to recontextualize the ways and means of production, use and renewal of knowledge (Carayannis & Campbell 2011).

Cities are par excellence locals of generation, dissemination and accumulation of knowledge, which is central to the phenomena of innovation and economic growth (Fujita & Krugman 2004).
A significant and growing proportion of economic activities of the countries is located in urban areas as a result of proximity and density of externalities. Urban contexts are characterized by the diversity and density of organizations, companies and people, which, in turn, attract new economic activities necessary to meet the arising needs and expectations of this concentration of people, business and organizations (Nijkamp & Kourtit 2013).

Sectoral diversity of urban economies provides a creative environment (Caragliu et al. 2012). The diversity of assets (knowledge institutes, economic diversity, labor market dimension, cultural animation, international orientation, consumption values) attract talent, knowledge-intensive investment and makes them friendly places to innovation and entrepreneurship (Carvalho et al. 2014).

The structure and organization of the economy result from individual actions and behavior of many economic agents (individuals, families, business, government institutions, diversified organizations). In evolutionary economic geography, entrepreneurs and consumers are considered basic units of analysis at the micro level (Boschma & Martin 2010). Economic and social phenomena are closely related and there is consensus in the scientific literature that should be analyzed in a complementary way (Bathelt & Glückler 2003).

Urban planners, economic geographers and policy makers recognize that the factors underlying the economic growth of cities are increasingly intangible (such as institutions and culture) and of increased mobility (such as financial capital, codified knowledge and, in part, human capital). There is also the recognition that innovation is a cyclical process, resulting from interaction of different actors in networks (Nijkamp & Kourtit 2013).

A system, as in the case of a city, is more resilient when in a state of reorganization, growth and innovation. After a shock (as it was, in the past, suburbanization of retail activities) city centres may simply resist without significant changes, modernize with significant changes that change its character, or be resilient, maintaining their key attributes and identity but adapting to new economic, social and cultural contexts. In these times of economic-financial crisis it has been promoted a new approach of urban management, with a strong link between the regeneration of the city centre and the resilience of the retail sector. The relationship between urban spaces, retail activities, planning structures and actions and governance are different from country to country and even at the local level. On the same street where the same policies and the same cultural contexts are applied, we can find different answers from retail entrepreneurs and different reactions/actions by consumers (Fernandes & Chamusca 2014).

Global phenomena, such as the consequences of the financial crisis for consumer purchasing power, the rising prices of basic goods, the demographic trends (notably the aging population) and the effort towards sustainability, pose challenges to the current business models and processes in the retail sector (CE 31/01/2013). The retail sector include all resale activities of new or used goods for consumption of individuals, companies or institutions, through various formats, including fixed establishments, fairs and markets, doorstep correspondence selling, peddling or e-commerce (Barata-Junho 2012).

Innovation is one of the crucial factors in ensuring economic growth. Retailers are important innovation vectors. They contribute to form and follow closely consumer trends, conveying this information to suppliers. They act as innovation multipliers, adopting and applying innovative technologies quickly throughout the supply chain (CE 31/01/2013).

The characteristics of entrepreneurs, their networks and capacity of investment, innovation and anticipation of change are key aspects of designing and implementing successful adaptation strategies, with consequences for the decline or prosperity of retail areas in the urban context (Barata-Salgueiro 2014).

It is recognized that retail sector has undergone significant changes in recent decades. Small street shops gradually lost importance and sought to add additional value to the goods in an attempt to reach new consumers. Specializations, locations, shapes and formats multiplied and modes of operation diversified and the size of firms and the interactions between producers and consumers have also changed considerably (Fernandes & Chamusca 2014). The significant expansion of e-commerce has led to greater competition between traditional retailers and online distribution channels (CE 31/01/2013).

Nevertheless, the retail sector was, is and always will be an urban activity par excellence (Cachinho 2014). There is also consensus that consumption patterns change considerably in recent decades, in terms of requirements, values, practices and power of consumption. Shopping became increasingly associated with leisure, entertainment and social distinction (Barata-Salgueiro 2014). Consumer preferences are nowadays much more heterogeneous and of highly individual nature (Seixas maio 2013). Consumers constantly renew their needs and above all their desires and expectations, change their behavior and lifestyles. This has direct consequences for trade activities, involving challenges to entrepreneurs in order to survive. Currently, the private sector investment in terms of attraction of consumers is intended not only sell goods and provide services but also to provide new retail concepts, pleasant ambiances, new or different types of goods or services and multiple opportunities and consumer experiences (Cachinho 2014; Fernandes & Chamusca 2014; Sorescu et al. 2011). Retailers are best described as ecosystems conductors where is created value delivered to consumers and appropriate by entrepreneur and their business partners (Sorescu et al. 2011).

Entrepreneurship and bottom-up initiatives

Entrepreneurship research dates from 1755 when Cantillon introduced the term entrepreneur in his Essai sur la nature du commerce en général. Since then, this topic has been of particular attention to researchers and policy makers because of the recognition that it is essential for the development and economic growth; job creation and innovation (Simón-Moya et al. 2014).

Over the past two decades there has been a strengthening of entrepreneurship research, with particular attention to the spatial dimension of entrepreneurial activities and its causes and effects. There is still a long way to go to arrive at a theory or at least a theoretical framework to explain the processes, causes and effects of entrepreneurship in urban areas (Bosma & Sternberg 2014). The current economic situation encourages research on the driving forces of economic growth. Entrepreneurship has a positive effect on economic growth by generating economic activity. Schumpeter and many other authors have argued in the early twentieth century that entrepreneurship and innovation was becoming gradually a driving force of job creation and economic growth (Audretsch 2015; Castañó et al. 2015; Galindo & Méndez 2014). Thus, determine the factors that lead to entrepreneurship has become important in academia,
namely in an attempt to support the formulation of policies that create conditions for their development (Castaño et al. 2015).

The scientific literature explains entrepreneurship as a product of local context and characteristics of individuals. The territories are endowed with different infrastructures of knowledge, institutions and resources. Individuals are heterogeneous with regard to knowledge, skills, values and preferences that guide their motivations and behaviors. Thus, the entrepreneurship process depends on the opportunities offered by the territories and the capacity and motivation of individuals to identify, evaluate and exploit these opportunities. In other words, for people with the same individual characteristics territorial context can make a difference in the extent that can favor an entrepreneurial attitude or, on the contrary, inhibit it (Boschma & Martin 2010; Bosma & Sternberg 2014).

Urban areas are particularly privileged in what concern to the existence of favorable conditions for entrepreneurial process. Characterized by a high population density and a strong flow of people (inhabitants, workers, visitors), they facilitate the increase and diversification of demand and the access to inputs needed for production of goods and services (financial capital, labor, suppliers, among others) (García 2014).

With regard in particular to urban markets, various international organizations recognize that this form of economic activity, very ancient in its origins but with innovative contours today, have advantages to urban areas in economic, social, cultural and even environmental domains. They create employment and entrepreneurship opportunities, to the extent that allow people with micro businesses to show their work, products and skills (NABMA Sem data; URBACT março 2015).

Several studies emphasize that entrepreneurs do not work in social, cultural or economic isolation. They are encouraged or constrained by local societal and organizational infrastructure. Entrepreneurship takes place in a specific environment in which the entrepreneur looks for employees, business partners and consumers. The spatial, temporal, social, historical and institutional context should be taken into account to the extent that generates opportunities or limitations to entrepreneurship (García 2014). Education, especially higher education, is an important factor in that it provides the acquisition of skills and attitudes conducive to entrepreneurship, contributing to a greater ability to identify opportunities (García 2014; Simón-Moya et al. 2014). There are, however, some studies indicating a reverse situation. In some European cities are the low skills that lead to entrepreneurship (García 2014).

In a study about entrepreneurship in European cities, Bosma and Sternberg (2014) concluded that urban areas characterized by economic growth and diversity of economic activities (more than specialization) have more entrepreneurs motivated by opportunity.

Taylor, in a study of forms of self-employment in the UK, says that statistics on employment indicate a growing number of people who are self-employed. The discussion around this topic is complex due to the variety and diversity of possibilities that fall under this designation, that includes the self-employed with employees, the freelancers, those who have their small business assembled at home, among others. The author points out that is increasingly self-employment by unemployed, elderly people with insufficient pensions or people with a second job. In their opinion, these are not the entrepreneurs considered potential drivers of economic prosperity, but marginalized figures of economies (Taylor 2015).

In a comparative study of English communities, Bailey and Madeleine (2015) concluded that the top-down initiatives led by government institutions tend to result in a smaller community empowerment, while the bottom-up initiatives which may in part be supported by the state create opportunities with potential for higher levels of transformation. However, the most prosperous areas, with skilled people and greater involvement in business, are more likely to
take advantage of these opportunities than the most depressed areas. In relation to entrepreneurship measurement, Estrin et al. (2013) believe that the combination of theories about entrepreneurship and the empirical testing of hypotheses is not a trivial matter, as they consider that entrepreneurship is often measured imperfectly. Several authors have used new business registered and self-employment as proxies of entrepreneurship. The former is used as indicative of entrepreneurship dynamics. The self-employment is understood as the creation of income through a business in individual name or professional activity. It is used as a proxy measure since many of these businesses grow and create jobs. However, there is the awareness that not all self-employed are entrepreneurs (García 2014). Galindo and Méndez (2014) used private investment as proxy of entrepreneurship.

In terms of public policies and strategies, at the turn of the twenty-first century, the Lisbon Strategy guidelines aimed making Europe the most competitive and dynamic knowledge-based economy, capable of sustainable economic growth with more and better jobs. The Strategy underlined the role of entrepreneurship in adaptation to economic changes and increased competitiveness, emphasizing the need to provide a favorable environment for the creation and development of small and medium enterprises (García 2014). It was succeeded by Strategy Europe 2020, focused on smart, sustainable and inclusive growth, highlighting the importance of entrepreneurship for achievement of these goals (CE 3/03/2010). The European Commission in European Action Plan for Retail Sector defines as strategic goals: to meet the challenges the retail sector face nowadays, to implement the single market in this sector and to create a coherent and comprehensive strategy to contribute to their full operationalization. It is recognized in the document that to pursue these objectives is necessary not only measures imposed from the top to the bottom but it is strongly required the active cooperation and initiative of retailers themselves (CE 31/01/2013).

Bottom-up initiatives in Oporto city centre

The city of Oporto has reached in recent years a greater visibility at national and international level. Its landscape, the architectural and cultural heritage, the emblematic equipment (such as Music House and Serralves Foundation and Gardens) and recreational and cultural events, as well as evening entertainment, especially in the centre, are factors of attraction of people. The growth of tourism along with the number of residents, workers, students and other users who use the city in their day to day contribute to the large flow of people at different times of the day, generating diverse experiences of the city, in general, and of its centre, in particular. The centre has always played an important role in the history of the city as an important economic hub and is nowadays the center of political and institutional decision of the municipality. In 2000, economy of Oporto city centre was heavily focused on the trade of various formats, from traditional shopping streets, traditional fairs and peddling to shopping centers and galleries (Quaternaire 2000). Since then many changes occur.

However, as is characteristic of European cities, retail sector is linked to Oporto from its beginning, being a key aspect in understanding the development of city in general and in particular of its centre (Fernandes 1997). It is our aim to analyze bottom-up initiatives of economic entrepreneurship in Oporto city centre retail sector. Our objects of study are fixed establishments, fairs and markets.

In terms of geographical area of reference, it should be noted that there is no defined and agreed limit of the centre of Oporto.

In Figure 2, we can see the limit of Historic Centre of Oporto (UNESCO World Heritage since 1996) and the limit of Urban Rehabilitation Areas defined by the municipality. City centre is considered broader than the Historic Centre but not as extensive as the limit of Urban Rehabilitation Areas. In this work we consider the limit of Urban Rehabilitation Areas as city centre because it would be reductive and misleading choose the lowest limit.

Figure 2 – Location of Oporto and its centre

In terms of methodology, it should be noted that there is no statistical information related to the topic available to our analysis scale, so that could not be tested indicators referred in scientific literature. Our results are based in 24 semi-structured interviews, made during 2015, to entrepreneurs of different types and formats of economic activity. Respondents were owners, managers or employees of fixed establishments and responsible for management and organization of urban markets. Once the centre of Oporto is diverse in terms of establishments opening date, having also centenarians business, they were interviewed older establishments and establishments recently opened (Figure 3). The goal is to analyze the features of recent business in what concerns to relationship with consumers, entrepreneurship and innovation as well innovation and adapting strategies to new consumer expectations in the case of business that endure for decades. It is considered old business those that opened during the last century.

We used content analysis to analyze the interviews. This is considered one of the most elaborate techniques in the field of documentary observation (Bravo 1994). We also used direct observation. It was used a framework with aspects on which it was intended to gather information.
Results

In Oporto city centre, recent years are marked by new dynamics in terms of strengthening and diversification of the hotel establishments, the revitalization of cafes and restaurants, the diversification of street commercial establishments and the promotion of urban markets and craft fairs. There has been an increasing number of establishments that not only have the product commercialization component but also, associated with it, there is a cultural and entertainment component. We refer for example bars and nightclubs that have spaces suitable for holding live concerts and diversified art exhibitions (Figure 4).

In what concerns to the fixed establishments, in the oldest ones there is majority a family heritage, the management passes from parents to children who want to continue a profitable business. In the case of the most recent establishments, respondents reported that the opening of business was due, in some cases, to situations of unemployment or precarious employment and, in other cases, because they work in the type of economic activity concerned or because they are somehow linked to that activity, aspiring to have their own business where they could apply their ideas.

The so-called fairs and urban markets, with more modern and innovative characteristics, began to emerge in 2009 in Oporto. They differ from traditional fairs and markets because of products marketed, the promotion of small businesses and brands, the animation associated to them and because they bring new audiences and experiences to urban spaces (Figure 5). Their achievement arises from the awareness that there was a shortage in Oporto of similar initiatives to those observed in other European cities. The main objective behind the organization effort of the markets relates generally to the stimulation of urban spaces, the revitalization of more or less forgotten areas and to the promotion of recreational and cultural activities of squares or streets, generating flows of people - residents, visitors and tourists - and attracting new audiences, new business, new experiences.

In the case of the oldest business establishments, expectations surrounding them focus on to succeed, create jobs, become increasingly known and keep pace with the new demands of consumers in order to increase or at least maintain customers. Newer businesses have the same expectations, however are still in process of affirmation and recognition of the business. The respondents refer that there are opened many properties in recent years, which it is positive, on one hand, because reflects significant economic dynamics of city centre; on the other hand, it creates more uncertainty because it represents in many cases competition.

In terms of difficulties in the implementation of the business idea, respondents particularly stress the lack of investment capacity, the difficulty of funding access and the excessive bureaucracy in licensing (we are talking about establishments opened before legal rules that facilitated the creation of business) and the high tax burden. The high rent of spaces that are practiced in city centre is referred as another difficulty, particularly by newer establishments. The oldest establishments reported that the opening of large shopping centers in the past was a challenge by their strong competition. Respondents related to urban markets indicate that in implementing its initiative they experienced difficulties with obtaining the necessary licenses, considered a very bureaucratic process. Today, the weather is a problem for outdoor markets and is not always easy to find appropriate locations - either because they are private and the owners have no interest in letting occupy the space, or because the spaces are small or even, in the case of public spaces, the municipality is not always in accordance with the chosen locations. Finally, they refer the lack of financial support as an obstacle in improving the conditions of events, both for sellers as to shoppers and other visitors, and the lack of an effective and efficient public strategy of boosting the urban fairs and markets.

When asked what they consider most innovative in their business, respondents of the oldest establishments report that is the ability to combine tradition and innovation, that is keep the old customers loyalty and the traditional character of the property at the same time that are up to date in what concerns to the needs and expectations of customers and to the modernization of services and technologies associated with the selling process. This last aspect is also highlighted in the more recent business inquired. The quality of products and services, the sale of original products or products with a distinguishing feature, the creation of a warm and pleasant environment are the most mentioned aspects by respondents related to the most recent establishments and to the markets.

The location in the city centre brings advantages derived from the centrality of the area, particularly in terms of the high concentration of shops and services and, to that extent, a large supply area is more prone to an increased demand. The flow of people is greater and the potential number of customers is naturally higher.

Tourists generate a greater flow of people and strengthen the economic activity of city centre. The older, traditional and well established retail establishments (like grocery stores, herba-lists, pharmacies, jewelry shops or bookstores) do not consider to have great benefits of these positive dynamics, with the exception of the flagship establishments (such as Lello Bookstore for example) that are themselves tourist attractions. Recent hotel establishments (and we refer particularly the hostels) opened because of the opportunities created by the increasing tourist attractiveness of the centre in recent years and currently benefit from this same attractiveness.

Personal and business networks are valued as ways to access the support they need or the information necessary to originate added value for their business. In the case of urban markets, the connection with the surrounding community and, in particular, establishments in the area, is a constant concern in order to generate mutual gains. The establishment of social relations between sellers, between them and clients or even among people who are in the events, is considered a positive impact of the markets. Responsible for markets aim to promote contact between people and business, to create conditions for the establishment of personal and professional networks that could result in future connections and also to create an environment conducive to the emergence of new ideas. Urban markets are seen as environments of commercial trading, but also of creativity, innovation, interaction and cultural activities.

The vast majority of respondents stated that they had no institutional support and don’t miss it; three respondents reported having the support of Oporto Merchants Association, which they consider very important; the three respondents responsible for organizing the urban markets have support from the municipal company Porto Lazer (with technical issues - sound and power - and bureaucratic issues, like granting of licenses for use of the spaces, as well as with dissemination of the markets), considering this an essential support that should be strengthened. Only one respondent reported having institutional support from a specific association related to his type of economic activity.
When asked what kind of support municipality could give to contribute to the development of their business in particular and the economic activity of the city centre in general, the most mentioned aspects respondents refer are the financial support, particularly for the rehabilitation of buildings, that in many cases are very degraded and thus unattractive at the outside; the availability of free parking or parking at more affordable prices than those currently practiced; the bureaucratic simplification and the increased security on the streets. It should be noted that four of the respondents mentioned that whenever contacted municipality requesting support it has been demonstrated willingness to collaborate and there was in fact effective support by the municipality of Oporto.

Figure 3 – Old and new economic activity establishments in Oporto city centre

Figure 4 – Homepage of internet pages of bars / nightclubs with cultural activities

Figure 5 – Urban markets in Oporto city centre
Conclusions

Since the 90s of twentieth century, the dynamics and impacts of economic globalization became particularly evident in cities of developed countries, occurring the affirmation of local on global and of global on local – the phenomenon of glocalization.

Urban planners, economic geographers and policy makers recognize that the factors underlying the economic growth of cities are increasingly intangible and of increased mobility. There is also the recognition that innovation is a cyclical process, resulting from interaction of different actors in networks. In these times of economic-financial crisis it has been promoted a new approach of urban management, with a strong link between the regeneration of the city centre and the resilience of the retail sector. On the same street where the same policies and the same cultural contexts are applied, we can find different answers from retail entrepreneurs and different reactions / actions by consumers. The characteristics of entrepreneurs, their networks and capacity of investment, innovation and anticipation of change are key aspects of designing and implementing successful adaptation strategies, with consequences for the decline or prosperity of retail areas in the urban context.

Consumers are constantly renewing their needs, desires and expectations, changing their behavior and lifestyles. This has direct consequences for retail activities, challenging entrepreneurs to keep up to date with customer’s trends. The scientific literature explains entrepreneurship as a product of local context and characteristics of individuals. The territories are endowed with different infrastructures of knowledge, institutions and resources. Individuals are heterogeneous with regard to knowledge, skills, values and preferences that guide their motivations and behaviors. Thus, the entrepreneurship process depends on the opportunities offered by the territories and the capacity and motivation of individuals to identify, evaluate and exploit these opportunities.

Our focus in this work was the analysis of bottom-up initiatives of economic entrepreneurship in Oporto city centre retail sector. Our research was based on 24 interviews and direct observation of fixed establishments, fairs and markets. We conclude that coexist in Oporto city centre different situations: the situation of those who have inherited a family business, adapting it over time to the needs and expectations of consumers; the situation of those who opened more recently a business because in a situation of unemployment or job insecurity or because they wished to have their own business. There is also the situation of those who, through observation of other European cities, have taken the initiative to organize and manage urban markets, aware of a gap at this level in our study area. The latter two situations clearly show an entrepreneurial spirit, of who identifies and takes advantage of opportunities created by the current economic dynamics, largely powered by the growing importance of tourism in the city in general and in its centre in particular. Respondents denote the concern on keep up to date in what concerns meet the needs and expectations of consumers. In older business is also the concern to update the technologies associated with the selling process.

Consumers are actors of economic initiatives, in that nowadays they experience while shopping. The innovation strategies of entrepreneurs pass through providing experiences, by creating pleasant establishment environments, inviting to fruition, apart from the innovation in terms of products (new or with differentiating characteristics), forms of marketing and cultural and playful animation of spaces. This is particularly clear in the case of bottom-up initiatives related to fairs and urban markets were music, dance and other art demonstrations are almost always present.

A last idea, it should be noted that entrepreneurship stems from an identity development strategy supported on empowerment of agents, upon their resources and possibilities of intervention, in order to improve their living conditions. It is also important to note the importance of do-it-yourself that underlies many of the initiatives, based on the possibility of making part of stakeholders, taking into their own hands the destiny of their lives. For example, many of the hostels are born of this principle, but also many bars / concert halls and art galleries or urban markets. The issues of innovation, knowledge, information and learning are critical in these empowerment processes.
CHAPTER 8

Technological Learning: Experience Curve as a Resilient Learning Mechanism

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Introduction

Literature on knowledge has evolved significantly since the pioneering works of Paul Romer, becoming multi-faceted. Theories of knowledge acquisition suggest that organizations facing similar changes vary in their capacity to learn due to cognitive (Senge, 1990), interpersonal (Argyris and Schon, 1978), structural (Duncan and Weiss, 1979), or managerial (Dutton and Thomas, 1984) factors, and even fail to learn (Hirsch, 1952). In general terms, researchers have all come to a general consensus that, when pursuing a development goal, embodying knowledge should be a priority task in modern organisations.

Thus, it is not surprising that, more recently, management literature has been focused on the management of organisational knowledge including the intangible dimensions of the organisation (Von Krogh et al., 2001), and has been conducted within the frameworks provided by economic theories1. Therefore, there is now a clearer understanding of the nature of knowledge (relationships between data, information and knowledge; between tacit and explicit knowledge; between individual and organization knowledge; between types of thinking), and of the dynamics of knowledge (knowledge acquisition and learning mechanisms, knowledge conversion, knowledge dissemination and knowledge application) in organisational contexts.

Eventually, knowledge accumulation in firms should lead to cost reductions and rising revenues, and from a micro-economic perspective, and assuming the positive contribution of firms for the dynamics of socio-economic change (Schumpeter, 1947), the economic evolution is a process of continuous cumulative learning (Rothschild, 2004).

The cumulative learning can be quantitatively captured in a so-called ‘learning curve’ (LC). The LC concept is based on the empirical observation that the costs of a product fall by a constant proportion with every doubling of cumulative production. Nowadays, the dominant stream of literature of the knowledge management (KM) science assumes that these cost reductions reflect, not only the benefits from learning-by-doing, but also the benefits derived from other types of learning mechanisms, such as learning-by-using, learning-by-searching, learning-by-interacting, and more recently learning-by-learning and learning-by-expanding. All the learning

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1 Economics theories such as the resource-based view, the competence-based view, cognitive frameworks theory, the capability perspective, or dominant logics.