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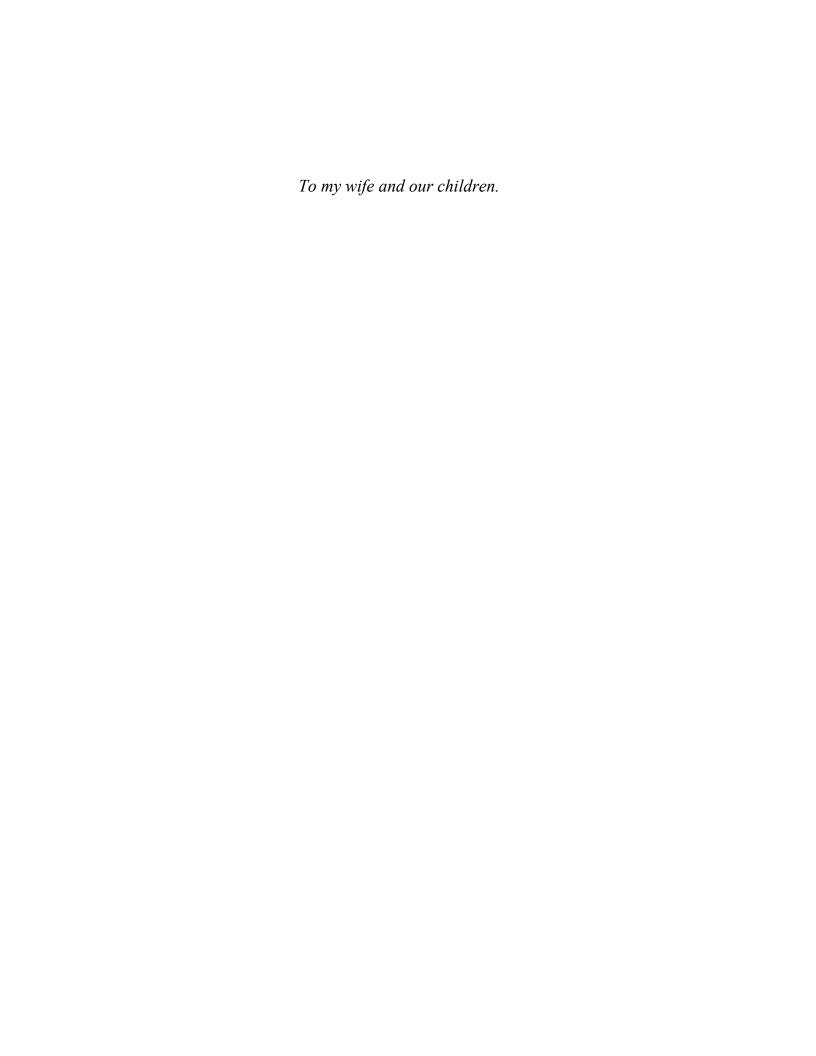
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# ENTREPRENEURIAL DYNAMICS IN LOCAL ECONOMIC DEVELOPMENT



# Ph.D. THESIS | AUGUST 2011

# ENTREPRENEURIAL DYNAMICS IN LOCAL ECONOMIC DEVELOPMENT

By Lucio Carlos Freire-Gibb (also Lucio Carlos Freire García-Zarco). Department of Development and Planning Aalborg University, Denmark.



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2011 - Doctoral Dissertation

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# **Abbreviations**

CRISP: City Region Innovation System Promotion

CSR: Corporate Social Responsibility

DKK: Danish Kroner (currency)
GDP: Gross Domestic Product
GNP: Gross National Product

ICT: Information Communication Technology

LED: Local Economic Development NGO: Non-Government Organization

OECD Organisation for Economic Co-operation and Development

PBL: Problem Based Learning
R&D: Research and Development
SI: Systems of Innovation
TEE: The Experience Economy
UC: University of California

#### **Collection of Articles**

This Ph.D. thesis is formed by a collection of individual articles, following the instructions of the Danish Ministerial Order no. 18 of 14 January 2008, and conforming the regulation of the Doctoral School of Engineering, Science and Medicine of Aalborg University. The thesis is submitted in partial fulfillment of the requirements for the degree of Ph.D. in the Department of Development and Planning at Aalborg University.

The articles included in this thesis (Chapter 6 to 9) are based on the following:

- 1. Freire-Gibb, L.C. & Lorentzen, A. (2011). A platform for local entrepreneurship. The case of the Lighting Festival of Frederikshavn. *Local Economy*, 26 (3), 157-169
- 2. Freire-Gibb, L.C. (forthcoming 2011). The rise and fall of the concept of the experience economy in the local economic development of Denmark. *European Planning Studies*, (19) 10.
- 3. Freire-Gibb, L.C. & Nielsen, K. (2011). Entrepreneurship within Urban and Rural Areas. Individual Creativity and Social Network. *DRUID* working paper 11-01. Also under consideration in *Regional Studies* (May).
- 4. Freire-Gibb, L.C. (forthcoming). Vallejo, California. A case for City Region Innovation System Promotion? Accepted pending revisions in the *International Journal of Innovation and Regional Development* (July, 2011).

#### **Preface**

The main aim is to understand the relationship between entrepreneurial dynamics and local economic development with a specific focus on peripheral cities.

I was born and raised in Madrid, Spain. As a child I visited my father's native country of Ecuador in Latin America, and I was struck by the vast socioeconomic differences I saw there. This spurred my interested in learning about economic development; therefore, I did my Bachelor's in Business Administration, my Master's in Innovation and Entrepreneurship, and I embarked on a Ph.D. in Economic Geography. I have obtained different regional perspectives having attended different institutions in Spain (Universidad de Alcalá), USA (Southeastern Oklahoma, Georgia Tech and UC Berkeley), and Denmark (Aalborg University). I also have a varied work experience including working in my family's business since I was a teenager, being a business consultant and creating several businesses myself. All of this experience has helped me to understand basic principles about entrepreneurship and economic development. All in all, since I was a child I have tried to understand why some places can have their economies grow and others not. Now, this doctoral thesis is an attempt to assemble my ideas about economic development.

The project that funded my research is oriented towards the municipality of Frederikshavn in the North Denmark Region. I introduce the concept of 'entrepreneurship in a broad sense', which is rooted in its geographical location. This idea was first hinted at by Schumpeter in the first half of the XX century and is related to systems of innovation in the 'broad sense' developed a couple of decades ago. My view is that this approach has many useful applications at the local level, particularly for improving entrepreneurship or what I refer to as entrepreneurial dynamics. Thus this thesis may have some contributions for the field of regional and local economic development.

I hope I have been able to find useful lessons for cities like Frederikshavn and Vallejo throughout the European Union and the United States. Hopefully, I have also learned some lessons for my father's homeland.

L. Carlos

# Acknowledgments

First, I am grateful to Anne Lorentzen for having obtained funding for the project my Ph.D. studies were part of. Most economic support came from the *Nordjyske Vækstforum* responsible for European Union funding, and the Department of Development and Planning at Aalborg University. I am also grateful to the Department of Geography at the University of California at Berkeley for making it possible for me to spend a semester there.

As is any Ph.D. candidate, I am immensely grateful to my supervisor, who always helped me out of difficult situations, particularly with many early drafts. Actually, in my case, I have had not one, but a remarkable team of scholars supporting my work: my main supervisor Birgitte Gregersen, and secondary supervisors Anne and Phil Cooke. I always looked forward to hearing Phil's wisdom. I am also thankful for the constant support of Søren Kerndrup. Dick Walker made it possible for me to have a remarkably productive experience in Berkeley. I am also grateful to various professors of the IKE Group at the Department of Business and Management who generously shared their time and insights with me.

Regarding the papers, I am in debt to the co-author of Article 1, Anne, who guided me in thinking through the critical issues. For Article 3, I thank Kristian Nielsen for his diligence and for good times. As I specify in the introductions of chapters 6, 7, 8 and 9, besides the aforementioned professors, I am also obliged to several other scholars for their input into the articles. I also thank several anonymous referees.

I am grateful to the Ph.D. student communities in Aalborg and in Berkeley where I always felt supported. I am particularly thankful to the ten colleagues who read parts of my thesis and gave me feedback in my pre-defense and for the maps of the GIS team. It has been especially joyful and fruitful to have shared an office with friends since 2008. They know. I am appreciative of my brothers', Juan and Jorge, and Jan-Philipp Kramer's comments on my thesis.

I am thankful for 'la Familia Freire' and the Gibbs who always trusted me. Finally, this thesis would not have been possible without the help of my beloved wife, Sarah, who provided invaluable help as a sounding board and editor, as well as for her general support during this challenging endeavor. Of course, all errors are mine, and mine alone.

# **PART I – INTRODUCTION**

# Chapter 1. Overview

# 1.1 Research Journey

In September 2007 I applied for a Ph.D. student position at the Department of Development and Planning at Aalborg University. The point of departure of my research was a project under the auspices of *Nordjyske Vækstforum* (Growth Forum of the Region of North Denmark). The name of the project is *Entreprenørskab, oplevelsesøkonomi og regional udvikling* (Entrepreneurship, experience economy and regional development). This project required research to be done on some innovative projects that had been started in the municipality of Frederikshavn. Key actors in the local government of Frederikshavn, region and the private sector were partners in the research project. I officially started working as a full-time researcher at Aalborg University on April 1, 2008.

The three main focuses of the project (entrepreneurship, experience economy and regional development) suggested that regional development could be related to entrepreneurship and 'the experience economy'. On one hand, there is a plethora of international academic literature pointing out the relationship between entrepreneurship and economic development. On the other hand, the field of 'the experience economy', although related to research done on cultural and leisure activities, was practically inexistent in the economic development literature. In fact, internationally the term 'the experience economy' was rarely known outside a small community within the business-marketing field. Interestingly, the concept somehow caught the attention of Danish society. Such widespread dissemination would not have been possible without the national government's promotion of 'the experience economy' in 2003. This support influenced the regional and municipality government levels, and by 2008 many Danish municipalities had established local development policies based on 'the experience economy' and/or tourism. This was the case of Frederikshavn, which had invested heavily in projects related to 'the experience economy'. During the first part of my Ph.D. studies, I carefully researched the concept of 'the experience economy' in Denmark. I found that it may be applicable to some academic discipline and certain municipal projects, thus making it useful for some areas. However, because of its blurriness combined with the capacity of the municipality and its geographical location, I concluded the strategies based on 'the experience economy' were not an effective contribution to local economic development for the majority of the municipalities, including Frederikshavn.

In 2007 when the research project for my Ph.D. studies was framed, there were

several gaps in the literature concerning the issue of 'the experience economy'. For example, it was not clear how entrepreneurs were adapting to the "new" experience economy and/or creative economy, nor was it very clear what might be necessary to foster effective entrepreneurial dynamics in peripheral areas under these circumstances. Overall, during times of relatively fast economic growth characterized by rising competition, many researchers began debating the economic potential and limitations of peripheral Western cities. The original geographical focus of this thesis was the municipality of Frederikshavn in the North Denmark Region. Later, however, it expanded into a much wider and diffuse concept, namely peripheral or more ordinary cities. In short, the thesis is not focused on remarkable or outstanding cases of economic development but

on 'normal' cities where 'normal' people live 'normal' lives.

Furthermore, my Doctoral School encourages and supports Ph.D. candidates to go abroad. For that reason, I looked at similar examples in foreign countries that could potentially be applied to a small struggling municipalities like Frederikshavn. Thus, I was a visiting researcher at the Department of Geography at the University of California at Berkeley, where I studied the city of Vallejo in the region of the San Francisco Bay Area. This research experience was highly beneficial for my overall studies and perspectives. The complete thesis uses many examples from cities in the European Union and the United States-- primarily from Frederikshavn and its environs and the city of Vallejo, in the San Francisco Bay Area (California, USA).

These aforementioned municipalities have tremendous differences. They are located in two vastly different countries, and Frederikshavn is in a more rural area while Vallejo is in an urban one. However, they also have significant similarities; both coastal communities are considered to be in the peripheries of their regions, and both have recently endured social and economic struggles. Through the case studies of the evolution of both cities regarding actors, networks and institutions as well as their relationship to their regions/countries, I have been able to come up with some conclusions for these types of ordinary cities.

In regard to methodology, I use a mixed method research that combines qualitative and quantitative research. Concerning theories, I use a systemic approach as a focusing device for understanding local economic development and entrepreneurial dynamics. As with any theory, this systemic approach has limitations; however, I have decided to employ this approach due to the nature of the empirical evidence I have been required to gather. In particular, my research is rooted in the systems of innovation, which includes paying attention

to a wide range of actors, networks and institutions. I combine the innovation studies with entrepreneurship research and local economic development literature, with a particular focus on peripheral cities in the Western countries. With these factors in mind, the research questions have been developed.

During these studies, my research has benefited from presenting papers at six different international conferences<sup>i</sup> as well as several seminars and workshops in Aalborg and abroad<sup>ii</sup>. Furthermore, it has been highly positive for me to interact with students and supervise projects. In particular, I received insights while teaching economic geography, entrepreneurship and demography classes at the bachelor and master's degree. My skills and research abilities have also been strengthen by attending to a wide variety of Ph.D. courses at Aalborg University and other universities<sup>iii</sup>. Lastly, I have benefited from being an author of the chapter *Lokal erhvervsudvikling i oplevelsesøkonomien* (Local business development in the experience economy) in the book edited by Lorentzen and Smidt-Jensen (2011). That chapter as well as other articles is not included in this thesis due to their format. For this thesis I have chosen four articles to illustrate the focus of my research. The next section will give an overview of the organization of the thesis.

## 1.2 Thesis Structure

The thesis is structured into four main parts that build on each other. Part I introduces some key concepts and presents the research question and three sub-research questions. It also includes the research methodology of the thesis and its geographical focus. Part II proposes a theoretical framework of entrepreneurship and local and regional economic development (LED). Since this thesis is based on articles that have been submitted to journals which leave little room for theoretical discussion, a stronger theoretical framework is important. Part II also gives an overview of the concept of 'the experience economy'. Part III is the presentation of the four articles. Part IV has one final chapter, which begins with a general discussion based on the main findings and aspects that have contributed to the research process. It also answers the original research question and gives some final conclusions. See figure below.

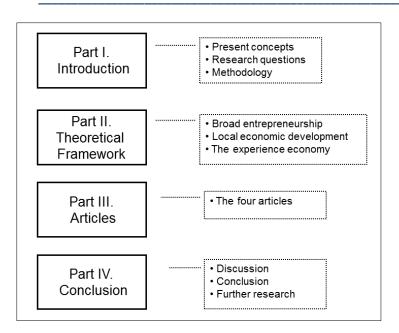


Figure 1 Main parts of the Thesis

Here Chapter 1 concludes. The following chapter will discuss the methodology of the Ph.D. research.

# Chapter 2. Research Design.

#### 2.1 Introduction

This chapter has four sections. After this introduction, the following section introduces the research questions that guide the thesis. The next section discusses the methodological aspects of the whole Ph.D. research. The last section of the chapter contains the geographic scope of the research—peripheral cities like Frederikshavn and Vallejo.

The research of the thesis is framed within the research tradition of Aalborg University. This model is known as Problem Based Learning (PBL) or sometimes outside of Denmark as the Aalborg model (Kolmos, Fink, and Krogh, 2004). With this approach "the idea is to begin with a problem scenario integral to the [course or research project] and require students to formulate a research question and find what they need to learn to answer it" (Spence, 2004). The research question tends to evolve during the research, and it is not unusual to end up with several research questions. The PBL model enhances the possibilities of having projects with a strong focus on practicality, which attempt to solve a real problem. The PBL model has influenced my overall research design and was complemented by educational approaches I have experienced in Spain and in the United States.

All in all, PBL can be described as a philosophical approach that, although is mainly used in education, also has applicable principles for research development. The PBL model, based on solving a real problem in which students are given much freedom, has influenced my research questions and methodology to be developed through an open approach. While this way of researching is motivating, one of the drawbacks of the PBL model is that if taken too seriously, one can get stuck in the problem. If the researchers (and supervisors) are not careful, they can be constrained to finding a solution to a bogus problem<sup>iv</sup>. The overall problem I am tackling in the Ph.D. project is, "How can peripheral localities have an effective LED?" This question considers two factors at the same time. First, that economic geography evolves, thus the concept of peripheral cities does not have a fixed geographical location. Secondly, that peripheral cities, although secondary cities, can offer very good standards of livings for many of their citizens.

The Ph.D. project deals with economic development, an interdisciplinary field with multifaceted problems. Therefore, early in the project, I realized that I needed a broad approach in which I could draw from eclectic results. Hence, the

methodology of this thesis is constituted by a mixed methods research, which combines qualitative and quantitative approaches (Creswell and Clark, 2007; Creswell, 2009). This will be further explained in section 2.2. The next section introduces the research questions.

# 2.2 Research Questions

During the relatively fast economic growth of the 1990s and up to 2008, many peripheral cities lagged behind the core areas. This has been attributed to the limitations of entrepreneurship due to factors such as localization effects, urbanization effects, and the 'creative class' argument of Richard Florida (Glaeser, Rosenthal, and Strange, 2010; Acs, Bosma, and Sternberg, 2011). Policy can do little regarding localization effects (i.e. economic geographic location), and urbanization is a long and a slow process that can hardly be managed by policies within Western political systems. However, policy makers and academics have increased their interest in promoting local and regional economic development on the basis of the 'creative class'. In the case of Denmark, the creative class has been strongly associated with the idea of 'the experience economy' (Sørensen, Fuglsang, and Sundbo, 2010). At the same time, many cities and regions see entrepreneurship as the most crucial factor in their economic development (Audretsch, 2009). Some struggling places have implemented strategies such as giving financial incentives, offering education to fit existing industries, improving transportation, et cetera, for decades, yet have still lagged behind. In order to improve their entrepreneurial potential, many places attempted to implement some ideas based on the argument of the "creative class", which they claimed sought 'the experience economy'. The project research I was involved in had the goal of better understanding how peripheral localities, in particular Frederiksahvn, could better implement factors related to 'the experience economy' in their entrepreneurial dynamics and economy development policy.

The present thesis is guided by a main research question and three sub-research questions. These questions attempt to offer some guidelines and a framework for the research project<sup>v</sup>. Each research question discusses the reasoning behind its particular pattern and scope. The box below contains the questions.

How do entrepreneurial dynamics evolve in peripheral cities?

- a) How can the concept of the experience economy improve the entrepreneurial dynamics and local economic development (of a city like Frederikshavn)?
- b) How does a rural/urban environment affect the entrepreneurs?
- c) How can an urban municipality (like Vallejo in the San Francisco Bay Area) improve its economic development?

The main question works as a frame for the entire Ph.D. research, and the three more detailed sub questions guide its scope. The sub questions here are developed in the articles. The questions and the articles co-evolved together. 'Question a' creates Article 1 and Article 2, 'Question b' facilitates Article 3, and 'Question c' introduces Article 4. Each of the four articles included in the thesis explains its own methodology; however, this section gives some more details about each question's methodology as it was not feasible to discuss it in such depth in the articles due to the format of the journals. Below, each question will be briefly discussed.

Main Question: How do entrepreneurial dynamics evolve in peripheral cities?

The question explores how the process of entrepreneurship and economic development can flourish (or decay) in peripheral cities. The question is taking into consideration that my vision of entrepreneurship goes beyond the concept's popular understanding and the mainstream literature's views (See section 3.1.3 on Entrepreneurship in the broad sense).

The geographical scope here is "peripheral cities", an idea that I will further develop in section 2.3. In short, these are cities that are not the most fancy or famous places of a regional economy, but are instead related to the social, economic and/or geographic fringes. They are normal cities by definition, where most of urban citizens live.

During the majority of my research, the main research question has been along the lines of: "How do entrepreneurship and economic development evolve *in Frederikshavn*?" However, due to the development of the research, it seems more appropriate and motivating to have a more inclusive approach which addresses cities sharing some of Frederikshavn's characteristics, namely its

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"peripheral city" nature. Frederikshavn and Vallejo are in parenthesis of 'Question a' and 'Question c', respectively. The parentheses could have been dropped, but I included them to emphasize that I am not only interested in these two cities but also in cities with similar characteristics.

a. How can the concept of the experience economy improve the entrepreneurial dynamics and local economic development (of a city like Frederikshavn)?

Even though the above question is now a secondary research question, originally it was the primary research question. In fact, chronologically it was the first question, and it remained the main focus of the research for nearly half of the research time. The reason for initially devoting so much time to this question is that it was stipulated in the research project I was a part of. The research done on the experience economy led to the first two articles. Article 1 finds some positive aspects related to the experience economy, while Article 2 concludes that an excessive focus on 'the experience economy' (TEE) it is not effective for local and regional economic policy.

First, I tried to find out the most useful things about the experience economy, and successfully discovered some potential applications that could be related to TEE. However after some of my preliminary research during the first months of my Ph.D., I became skeptical of TEE. In the field of TEE, professors Birgitte Gregersen, Søren Kerndrup and Anne Lorentzen assisted me in expanding my approach to the benefit of the whole project I was part of. Anne and I eventually coauthored a paper together, which Article 1 is based on. The paper discussed how actors from the public and private sector in Frederikshavn came together to create an event that can be related to TEE. I should note that the connection between the event and TEE is more clearly explained in the Danish version of the study (the chapter I published in the book by Lorentzen and Smidt-Jensen (2011), not included in the thesis) than in Article 1.

As will be shown in more detail, for the most part, the concept of TEE did not (and most likely will not) improve the entrepreneurial dynamics of Frederikshavn, nor has it improved the municipalities local economic development. This conclusion is based on qualitative and quantitative material done by several researchers and myself, and is found to be true not only in Frederikshavn, but in many other similar places as well. The weakness of the concept of TEE, combined with the limitations of the local context (or capacity), is the primary problem in orienting economic policy towards TEE. For example, TEE can be weakly defined, but it does not really damage the

economic prospects of Copenhagen. However, when the concept is implemented in unindustrialized localities, TEE becomes meaningless. I explain this in more detail in Article 2. Another issue is the Western economic cycles explained in the last part of the thesis. All in all, even though it may look like the local government of Frederikshavn made a mistake by supporting strategies based on TEE, overall conclusions should not be overly hasty.

By late 2009, it was clear to me and the majority of the researchers in Denmark that the experience economy had little potential of improving the wellbeing of the majority of the municipalities it had been implemented in, including Frederikshavn. Admittedly, I could have stopped my Ph.D. research there since this was precisely what the funding for the project had asked me as a researcher to investigate. Perhaps, it could have been useful to investigate other projects that I had done preliminary research on like the *Tordenskjoldagen* (a historical festival), which I had invested many resources on. However, upon concluding that TEE approach was not an effective policy for Frederikshavn, personally I felt like continuing such research would have been like beating a dead horse.

Consequently, for the second half of my Ph.D. studies I decided to go one step further. If the experience economy could not really help the economy in this municipality, what could? I realized first that I needed to better understand the local economic development process. Therefore the new main research question ["How do entrepreneurial dynamics evolve in peripheral cities?"] became more important and provided an umbrella or overarching research question that could guide my work. Thus, my task became not about finding out if and how the experience economy could help the city of Frederikshavn, but about understanding the economic development process of a city like Frederikshavn. The new main research question was not completely new since it stemmed from the original research question and was only broader in its nature.

The last two research questions, or sub-research questions, evolved during the research. The first one (Question b) deals with the effects of a rural environment on entrepreneurial dynamics, and the second one (Question c) addresses the challenges cities face within a large urban environment.

# b. How does a rural/urban environment affect the entrepreneurs?

My project required me to focus somewhat on the municipality of Frederikshavn. Whether or not the municipality with 61,576 people is rural can be debated (it has a density of 95 people per km<sup>2</sup> compared to the Copenhagen municipality with 6,114 / km<sup>2</sup>), but in the Danish context its peripheral status is

indisputable. Frederikshavn is the northern most municipality in Denmark. It can take over six hours to drive to Copenhagen<sup>vi</sup> making it among the most peripheral places in the country. The fact that driving to Copenhagen without

peripheral places in the country. The fact that driving to Copenhagen without the use of ferries was impossible until recently when the *Storebæltsbroen* (The Great Belt Bridge) opened to traffic in 1998 must be considered. Even though Denmark is a small country compared to other Western countries, its particular geography consisting of islands and a relatively slight peninsula has kept places like the Region of North Denmark relatively isolated (Hansen, 1991).

Apparently for Frederikshavn, its geographical location seemed to be a significant burden on its economic development. In several interviews, when talking to key informants about Frederikshavn's future possibilities (e.g. attracting qualified employment, professionals coming for a conference, tourists), people formulated the challenge as something like "Ok... Frederikshavn's problem is its location... Nobody wants to travel so far!" Furthermore, much economic geography literature has pointed out the importance of urbanization on entrepreneurship and economic development. Many have argued that people living in rural areas have different socio-cultural traits that inherently present barriers to entrepreneurship. People in peripheral areas have been described as "rooted", meaning they are people who favor stability over creativity (Florida, 2008). Organisation for Economic Cooperation and Development (OECD) researchers simply concluded that in rural areas the "dominant culture appears to be of a dependency on state funds and intervention, which may be viewed as the antithesis of an entrepreneurial culture" (Smallbone, 2009 p. 16). Arguably because Denmark is among the smallest countries in the European Union, there should not be much difference between the urban and rural populations regarding entrepreneurial choice; however, this is not the case. A Eurobarometer report showed Danish entrepreneurs to have the lowest likelihood of being an entrepreneur if the respondent was from a rural area compared to respondents from non-rural areas, among the 25 countries in the European Union in 2006 (Flash Eurobarometer, 2007).

Given this data, it seemed reasonable to explore the characteristics of Danish peripheral entrepreneurs compared to the ones at the core. My initial research, as well as the academic literature on the subject, made me wonder about the basics of urban and rural entrepreneurial dynamics. I came up with questions like: Does the superior economic performance of the core over the periphery have something to do with the entrepreneurial traits of its residents? What are the key differences between urban entrepreneurs and rural entrepreneurs? What about the employees who are involved in the crucial Danish intrapreneurship;

do they have different entrepreneurial attitudes? In other words, do urban citizens have inherently better entrepreneurial traits than rural ones, as researchers have suggested (e.g. Richard Florida, OECD, Eurobarometer) or is the statistical difference between the two groups related to geographical fate (like urbanization and localization effects, a different milieu) as other research has suggested? (Acs, Bosma, and Sternberg 2011, Glaeser, 2011). Kristian Nielsen and I spent much time studying these types of issues and arguments. In 2010 we presented two conference papers, and after much trial and error, we were eventually able to design a research method that tackled these questions. This research would not have been possible without the perseverance and scientific expertise of Kristian Nielsen. Article 3 is based on the final paper we finally submit to an international journal in May 2011. In this article, these topics are discussed in more detail.

With the preliminary results of Article 3, I decided to find similar peripheral cases that could help me gather empirical evidence in order to understand the periphery better and enable me to give more useful suggestions to the project I was a part of. I concluded I had done enough research at the marginal-rural level and believed more research in urban places was necessary. From the research I had done, the main reason for the lack of economic development was the lack of urbanization<sup>vii</sup>; however, evidence proved that there were many struggling places that were also trying to improve their economic possibilities in populated areas. This led me to my last research question:

c. How can a struggling urban municipality (like Vallejo in the San Francisco Bay Area) improve its economic development?

The main motivation for using this question was to learn more about regional and local economic development (LED). My academic and work background had given me experience in the entrepreneurship field, and I heavily researched the experience economy. However, I did not have much knowledge of the LED field. For example, I knew many of the entrepreneurship scholars' arguments about LED, but the positions of LED scholars on entrepreneurship were unclear to me.

The answer to 'Question c' was mostly developed in Article 4. In order to understand this question's approach, it is important to recognize where this question was researched—the Californian city of Vallejo. If I had chosen another city, the research question would have been similar. The following paragraphs will explain why I chose Vallejo to tackle this research question.

As previously explained, my Doctoral School encourages Ph.D. candidates to study abroad for a two to six-month period. I wanted to find a place where I could speak the language fluently (Spanish or English) since I intended to do extensive qualitative research viii. Before choosing Vallejo, I considered places in the European Union (United Kingdom, Ireland and Spain) and a couple of places in the Midwest rustbelt of the United States. I wanted to find a situation similar to Frederikshavn's. My criteria for choosing a city to study mainly consisted of finding a place that was traditionally industrial, that was preferably coastal and that had a below-average economic performance. It was also important that the city have some aspects related to the experience economy and be in an area that provided a good research environment (maybe in a major university or specialized research center). The main difficultly was that I wanted to find a somewhat peripheral place that was, at the same time, urban. I found the place that best fit all of my criteria was Vallejo. This city was interesting because it recently went bankrupt, and many viewed it as the canary in the coal mine for other cities. Perhaps this will be the case, but fortunately, so far, it has remained the only city in bankruptcy in the United States. Furthermore, it was an interesting locality to study because it is in the San Francisco Bay Area, which is such an innovative region. Since Vallejo is only a 20 minute drive north of Berkeley, I applied for a visiting researcher position in the Department of Geography at the University of California at Berkeley. Choosing the Californian case was also based on the contacts I had in the region and the research environment Berkeley offers, including its recognized research groups, high academic standards, motivated individuals, critical approach, outstanding libraries and networking opportunities.

During my time at Berkeley, I primarily focused on trying to answer research Question c. The discussions and collaboration with other economic geographers, urbanists, planners and economists was highly beneficial to my research. I focused on studying different aspects of LED and its relationship to other factors such as entrepreneurship and TEE, but I also explored other relevant issues such as urbanization, governance, innovation policy and regionalism. These issues will be covered in more detail in Article 4.

In conclusion, it is important to emphasize the evolutionary process involved in the development of the research questions. The project did not start out with a set of rigidly predetermined questions, and from the beginning I acknowledged the very complex nature of formulating questions. The next section will give an overview of the varied methodology used during the Ph.D. research and in the articles.

# 2.3 Methodology

The methodology and the research questions have evolved with the scope of the Ph.D. project. From the beginning, the research questions called for an interdisciplinary approach, which led to a mixed-method research approach that combines quantitative and qualitative research. Statistical databases and econometric studies, mixed with some grounded theory, were complementary to two main case studies. I recognized "that all methods have limitations, [and] researchers felt that biases inherent in any single method could neutralize or cancel the biases of other methods" (Creswell, 2009 p.14). Each individual paper can be categorized as being either more qualitative or quantitative; however, overall, the Ph.D. methodology is a combination of varied approaches. This next sub section will analyze the methods research used in the entire Ph.D. project, and the following section will examine the background aspects of each article's methodology.

According to Creswell (2009), mixed-methods strategies have several variations, which can be distilled into three general strategies: sequential, concurrent and transformative. My studies as a whole fall into a type of "transformative mixed methods", in which the "researcher uses a theoretical lens as an overarching perspective within a design that contains both quantitative and qualitative data" (ibid. p.15). Overall, I tend to use as the concept<sup>ix</sup> of systems of innovation as a theoretical lens. As mentioned in the Chapter 1, it has a particular focus on actors, networks and institutions. Each article attempts to capture a different perspective of these three aspects as they pertain to entrepreneurship and LED.

In order to create the knowledge reflected in this thesis, I have gathered information in many different ways. Besides observing, information mainly comes from reading and listening. The bibliography at the end of the thesis contains the quoted texts I have referenced. The years dedicated to earning a Ph.D. are characterized by intensive reading that influences the way the student understands the issues related to his/her Ph.D.. However, there are many important things that one reads that cannot be quoted either because a direct quotation is not pertinent or occasionally because the author is unconsciously forgotten. In regards to listening, I have referenced some conference talks and even a couple of videos. The availability of specialized broadcasts over the internet has become an important way of influencing the thought process of students even though much is not referenced. Student ideas are also shaped by listening and discussing with many people. Upon reflecting on how many people I have had casual or deep conversations about subjects related to my

thesis, I realized there are approximately 200 people that have given me important information. In Appendix 5, I include an interview guide consisting of people I have interviewed to different degrees. This is a standard procedure required of academics, but does not mean that most of my knowledge came from them. For example, I have carried out some interviews that I digitally recorded and later analyzed, but which ultimately developed into much less knowledge than conversations with someone I met at a workshop, an interested citizen met randomly or a fellow Ph.D. student. I have also gained much knowledge from blogging, which is explained in more detail in Appendix 6. Paradoxically, many of these informal interactions which have provided key knowledge are not quoted because of the reasons mentioned above. I have tried to name some important people in the acknowledgments, but unfortunately some are missing.

Most of my research has been qualitative. This includes a large number of interviews (for example: 25 interviews in Article 1, 30 interviews in Article 2, and 15 interviews in Article 4, and other formal interviews in general). Various interviews have been digitally recorded and analyzed, and some of the interviewees that I considered to be key informants were transcribed and analyzed. There are several misunderstandings of case studies methodologies. However it is important to acknowledge their relevance in finding general truths, creating scientific development and potentially "develop[ing] general propositions and theories on the basis of specific case studies" (Flybjerg, 2011, p. 302). To sum up, the interviewing process and case studies have been immensely helpful in understanding and clarifying the central concepts of the thesis and coming up with some proposals.

By always using a systemic approach which tries to gain input from the different actors, the triangulation process to attempt obtaining the highest possible validity, comes easier. Regarding validity, I found that my project would not allow me to use either only qualitative or only quantitative research. When dealing with some economic measures and demographic issues, on occasion there seemed to be a need to confirm the qualitative material with quantitative data. The following paragraphs provide some examples of the limitations of the both qualitative and quantitative approaches.

On the one hand, during the first months of my research, I found that many stories did not match some of the results extracted from the quantitative data<sup>x</sup>. By only taking into consideration the opinions given in interviews, media articles, or academic research based on a qualitative approach, a skewed portrait of a city can be made. For example, several individuals in the city of

Frederikshavn and its environs gave the impression that the city was doing well, particularly in projecting an attractive image. However, basic economic, social and demographic data did not confirm this<sup>xi</sup>. In the case of Vallejo, many complained that the city was being consumed by a recent spike in violence; however, basic quantitative data contradicted this popular narrative<sup>xii</sup>. The positive and negative images of Frederikshavn and Vallejo, respectively, can be called into question by considering demographic numbers. In both municipalities, the population has been quite stable for the last decade<sup>xiii</sup>.

On the other hand, quantitative research also has inherent biases. For example in Article 3, we have tried to fill a lacuna in the entrepreneurship literature by combining the person and the environment. Without the limitations of time and resources, it would have been beneficial to interview thousands of individuals all across urban and rural Denmark. However, we based our research on two main databases: longitudinal official data on Danish residents and firms and a questionnaire administered in 2008. Each methodology used to gather data as well as the way people answer the questions and the way the researcher codifies them has inherent inaccuracies. Even though we tried to be as fair and accurate as possible, the relevant data we chose to use may have had certain inconsistencies or unconscious biases. Furthermore, the way we interpreted the statistical results could carry some errors to try to find data. For instance, in our preliminary statistical results the main finding was that urban and rural entrepreneurs were not very different from each other (instead the primary difference was between entrepreneurs and non-entrepreneurs). Nonetheless, in our decision to find the main differences between urban and rural entrepreneurs, we developed econometric models and specifications of the multivariate analysis for that purpose. To sum up, quantitative research in general can easily acquire some subtle biases and inaccuracies, an important fact to acknowledge, particularly when scientific findings are used to help us better craft economic policy suggestions.

Regarding the different research methods that have influenced my Ph.D. research, the grounded theory approach can be included. During my academic career, I have taken a few classes on the theory of science and research methods. Even though grounded theory seems to have several limitations it attracted me. In 2007 when I decided to apply for a Ph.D. position, I believed from the beginning that due to the complexity of the problem ("How can a peripheral city improve its economy?"), some sort of grounded theory would be useful. Much of my research has been guided by collecting material without trying to probe a theory or hypothesis, after which I have attempted to draw my own conclusions. Grounded theory has been defined as: "theory derived from

data that has been systematically collected and analyzed using an iterative process of considering and comparing earlier literature, its data and the emerging theory" (Makela and Turcan, 2007)<sup>xiv</sup>. This mentioned process has many similarities to the process I went through in my study of Vallejo. Moreover, it can be argued that I have used some grounded theory aspects throughout my entire Ph.D. research.

Concerning the particular methodologies of each article included in the thesis, each one has used different methodologies. Article 3 is definitely a quantitative paper, while Article, 1, 2 and 4 rely more heavily on qualitative research. However, the three qualitative articles have very different methodological approaches. Article 1 is a classic case study (Flyvbjerg, 2011; Yin, 2009), and Article 2, even though it includes some statistical data, can be described as a type of discourse analysis (Richardson and Jensen, 2003). Article 4, by avoiding a predetermined line of thought or theory verification, has some aspects related to grounded theory (Glaser and Strauss, 1967; Strauss and Corbin, 1998).

All in all, I have chosen a mixed-method research approach that combines quantitative and qualitative research in order to improve the validity of my results in this complex field. The methodology of each included article is different (as well as in the other articles not included in the thesis). Combining several methods of research could be seen as a limitation for a doctoral thesis, but it can also be seen as strengthening the results it produces. I believe that a mixed-method approach was necessary in order to tackle the research questions; in fact, I believe it is strength of the research<sup>xv</sup>. That said, I have greatly benefited from researchers or other Ph.D. candidates who used only quantitative or qualitative research.

Although it was not predetermined, at the end of the road I look back with conviction that combining methodologies has been a worthwhile and gratifying research methodology to use. The different papers required me to use different approaches to tackle the research questions and complexity of the problems, a task which has something been quite challenging. This would not have been possible if my educational and work backgrounds would have not been in the field of business studies, in which quantitative and qualitative material is regularly combined. Perhaps this is why I was inclined to address things from a mixed-method research approach from the beginning.

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## 2.4 Geographic Scope

This thesis does not directly deal with economic development at global, continental or national scales: its focus is at the regional and local scale. The study of the economies of cities and regions is typically known as local and regional economic development (LED). As previously mentioned, my main geographical focus has been the municipality of Frederikshavn in the North Denmark Region, but I have also looked at other examples that could be potentially pertinent and useful to other cities concerned about their economic development. Examples used here come from places in the European Union and the United States. Therefore, when I refer to LED, cities, regions, economic crisis or other terms indiscriminately throughout the thesis, and if not stated otherwise, I am referring to places in both in the United States and the European Union<sup>xvi</sup>. Sometimes I would refer to 'Western countries' even though there has always been a discussion whether the United States and Europe are becoming more different (Spiegel International, 2011) or alike (The Economist, 2011). (Countries like Canada, Norway and Switzerland are also popularly considered to be Western countries.)

As previously explained, the project I was a part of required me to have a particular focus on the municipality of Frederikshavn. This later evolved into looking at cities that were similar to Frederikshavn that could be informally described as 'normal cities'. This contrasts with places that are known for being fancy or exciting. It is important to bear in mind a caveat that can be ascribed to it. Research has a bias towards things that stand out, and the LED research does not avoid this particularity. Average things are not seen as interesting even though, by definition, they are the most common. This is a reasonable approach to use since it is useful to learn from the remarkable. As a researcher once told me, "all the students can learn from the smartest kid in the class, even though, they can not become the smartest kid in the class". Unfortunately this way of thinking has left peripheral cities understudied.

The term 'normal' city is extremely vague. I have tried to be more precise by referring to 'peripheral' cities, by which I refer to secondary cities that can be categorized as peripheral due to their social, economic or geographical situation. Regardless of whether I use the word 'peripheral', 'secondary', 'average' or 'ordinary', each has a social construction that conveys a negative perception. It is not my intention, however, to give a negative connotation to these 'normal' places. This is similar to what the urban geographer J. Robinson (2006) did in her book called "Ordinary Cities", when she defended the peculiarities of these settlements. Overall, much research has been devoted to

the cores of city regions, touristic places or highly innovative places (e.g. industrial districts, clusters, milieus, etc.); however it is useful to keep in mind that "dynamic areas (...) tend to be exceptions, [today most] regions and localities struggle to adapt their economic fabric" (Pike, Rodríguez-Pose, and Tomaney, 2006, p. 8). Thus, it is necessary to pay more attention to 'peripheral' places.

Concerning the geographical scope of the articles of the thesis, Article 1 covers Frederikshavn, Article 2 (on the experience economy's influence on Danish local economic development) uses various examples from Frederikshavn and Article 3 (comparing urban and rural entrepreneurship in Denmark) covers the municipality indirectly. Article 4 deals with Vallejo. Below, there is a brief description of the two municipalities that this thesis particularly focuses on. As 'peripheral' cities outside of the core of the nation (Denmark) or region (San Francisco Bay Area), each city has many possibilities and limitations. Each city can learn from the other, but Vallejo could learn more from Frederikshavn than the other way around. Nonetheless, Frederikshavn (and similar cities) can learn what not to do from a case like Vallejo.

#### 2.4.1 Frederikshavn

The municipality of Frederikshavn, which had 61,576 inhabitants in 2011, is the most northern municipality of Denmark. The current borders of the municipality were only formed a little over a year before my Ph.D. thesis started. Before January 1, 2007, it was formed by three different municipalities: Skagen, Sæby and Frederikshavn. Because Frederikshavn is centrally located, has 23,331 inhabitants and is bigger than Skagen (9,380 inhabitants) and Sæby (8,875 inhabitants), it was chosen as the municipality's administrative center. Roughly two thirds of the populations of the municipality live in these small cities, which some consider to be towns. The three former municipalities although they are similar in many socioeconomic indicators, historically have been rivals. Thus, there has been certain political tension since 2007.

Frederikshavn has been a traditional industrial city that peaked by the late 1970s. During the last three decades it has been slowly losing its industrial vitality, population and tourism. By 1999 the shipyards, which were the largest employer during the 20th century, either closed down or were transformed into repairing firms or specialized providers. This industrialization process combined with the loss in tourism has created much stress for Frederikshavn.

Meanwhile, the national economy in general, particularly in core urban centers, grew steadily during these last decades.

The municipality of Frederikshavn, in recent years, has tried to implement a policy related to oplevelsesøkonomien ('the experience economy' in English, TEE). This is a concept rooted in the business literature, and many Danish companies have implemented many of its features. In Danish municipalities and regions, TEE has evolved and mutated into some type of cultural policy that is frequently mixed with economic policy. For localities that were slipping behind the core areas in the country, it was seen as a salvation idea. In recent personal communication an experienced researcher told me that in fact "a few years ago [aprox. 2005-2008] if the economy of a city was not doing good, it was believed [by academics and policy makers] that the problem was that the leadership of the city had not had the capabilities to engage in the experience economy".

As explained in Article 1 and Article 2, the peculiar transformation of the city of Frederikshavn has been held up as a paradigm for the local strategy based on TEE. Local development specialists have talked about the transformation of Frederikshavn [through] many innovative projects which have contributed to redefining the identity and atmosphere of the city (Lorentzen, 2007). They have also highlighted the "changes in mentality and identity of Frederikshavn" (Therkildsen, Hansen, and Lorentzen, 2009). New projects include a Caribbeanlooking palm beach which is a popular tourist attraction; the festival of the Days of Tordenskiold; and the Lighting Festival (such projects are analyzed in Article 1). The purported image transformation of Frederikshavn has not been achieved through projects solely related to TEE. There is an ambitious energy project that attempts to make Frederikshavn, by 2015, "the first medium-sized city in the world to rely exclusively on renewable energy resource" (Danish Ministry of Foreign Affairs, 2007). This energy project is believed to be on a good trajectory, and the project has a chance to be mostly achieved by 2017. According to my colleagues at the Dept. of Development and Planning, who also deal with projects in Frederikshavn, the city is on its way of reaching its "100% renewable energy" goal. While the project had to be adapted along the way, it seems that eventually Frederikshavn will be a model town. If the two main projects are implemented –construction of 6 offshore turbines, of which 4 are already in place, and the building of a large biogas facility- then the bulk of the project will be complete. Another important issue is the heat savings (20%) that will require a wide range of activities like house retrofitting (Sperling, 2011). It is not within the scope of my project to analyze the energibyen (EnergyCity) project, but I find it interesting how the city has tried two different lines: the EnergyCity and the experience economy. xvii

Still today, many in Frederikshavn's local government believe it is crucial for

Still today, many in Frederikshavn's local government believe it is crucial for the city's economic development to support a strategy based on TEE. In fact, in the current business-economic strategy (laid out in the Municipality Plan 2009-2010) one of four pillar strategies is TEE (Frederikshavn Municipality, 2008).

Frederikshavn's strong support towards the experience economy (and renewable energies) could be defined as an extreme case due to the radical approach that the city has taken to change its economic capabilities in a stressful situation. However, there are several factors that make one consider the city more normal than extreme by Danish standards. First, even though Frederikshavn is a provincial city in the periphery of Denmark, it should be noted that nearly 40% of the population of Denmark live in these rural/peripheral areas (see Article 3). Second, trying to reach 100% renewable energy use has been done in different ways by several Danish urban areas (Sperling, Hvelplund, and Mathiesen, 2011). Third, the strong orientation towards TEE, although it has been significantly strong, has been a strategy used by all municipalities in the North Denmark Region (Lorentzen and Krogh, 2009) and that up to 1/3 of all Danish municipalities can also be linked to 'the experience economy' (Caspersen, 2009). All in all, Frederikshavn's resources and the projects they have produced, can categorize it as an average small Danish city. In fact, Frederikshavn has many similar patterns with other Danish towns in the periphery. For example, the city of Nakskov, in the farthest Danish municipality from Frederikshavn, and Frederikshavn share striking similarities and patterns over the last decade regarding LED projects and socioeconomic factors.

# 2.4.2 Vallejo

The city of Vallejo is located in the northeast part of the San Francisco Bay Area, in Northern California. The municipality was funded in 1851, and since then its demography and economy have had several booms and busts. Today, with nearly 115,000 inhabitants, it is considered a working-class community. Vallejo is very ethnically diverse. Until recently, the city was considered a prosperous place that had high expectations; however, it is currently trapped is some vicious circles. A report explained that the metro area in which Vallejo is located "has taken one of the hardest hits in the nation from recent housing woes. The economic and financial consequences have been so severe, in fact, that the city of Vallejo was forced to declare bankruptcy" (DeVol, Bedroussian, Klowden, and Kim, 2008, p. 11).

Since the local government decided to declare bankruptcy in May 2008, the city has been in the spotlight of the regional, national and international media. Its public agencies, public budgets, actors and networks have been scrutinized. The majority of media have blamed the public unions, in particular the police department and firefighters. Members of the city council also blame poor city management over the last decades. From my point of view, the city's path dependency, framed by historical, geographical, political and other socioeconomic issues, is equally important to understand the problem.

Members of the City Council and some key informants believe by the end of summer of 2011 the city will eventually exit the technical phase of bankruptcy<sup>xviii</sup>. From that moment, the city is expected to be stable but at the bottom. Even though slightly positive changes are occurring in the city, like a decrease in crime and an increase in population, in general the perception of most of the Bay Area residents about the city continues to be negative. Today, as in the past, the economic development of Vallejo is interdependent with its region, the San Francisco Bay Area.

Article 4 will suggest some potential solutions for the city of Vallejo and cities in a similar situation. The city of Vallejo is quite different from Frederikshavn even though they share many similarities between them. See Appendix 12 for key differences and similarities between Frederikshavn and Vallejo.

PART II – THEORETICAL FRAMEWORK

My Ph.D. project required a focus on entrepreneurship, LED and certain events that have been categorized as the experience economy. Thus, this part has three chapters: Chapter 3 Entrepreneurship; Chapter 4 Local Economic Development; and a short Chapter 5 The Experience Economy in Denmark.

## Chapter 3. Entrepreneurship

#### 3.1 Introduction

The first sections of this chapter give an overview of methodological approaches to understand entrepreneurship (3.2), and I present a way to look different entrepreneurs (3.3). Then I define the three main concepts I have used in regard to entrepreneurship, namely: entrepreneurship in the narrow sense (3.4), entrepreneurship in the broad sense (3.5) and entrepreneurial dynamics (3.6). The latter in short, can be defined as the process by which entrepreneurs, either in the narrow or broad sense, undertake their activities and the entrepreneurial functions evolve.

Trade and specialization are the origins of entrepreneurship, and these are as old as mankind. The earliest known use of the word entrepreneur comes from Irish-French, Richard Cantillon circa 1730 (Cantillon, 1755 [2010]; Schumpeter, 1949; Jacobs; 1983). Today there are many definitions of entrepreneurship<sup>xix</sup>. In this thesis, I present two main definitions, one narrower and one broader.

The dictionary definition of entrepreneuship is the one most commonly understood in society, policy making and academia (Blakely and Bradshaw, 2002; Shane, 2008). The Oxford dictionary states that an entrepreneur is "a person who sets up a business or businesses taking on financial risks in the hope of profit". This is clearly the definition of someone who owns a business and nothing else, a concept more related to entrepreneurship in the narrow sense. On the other hand, many others purposely walk away from such dictionary definitions and define an entrepreneur as "someone who undertakes certain projects" (Wickham, 2004 p. 6) or someone who "recognizes the opportunity to create something new" (Baron and Shane, 2005 p. 7). These wider definitions are more related to entrepreneurship in the broad sense.

The ideas of entrepreneurship in the *broad* and *narrow* sense are not at all novel. In fact, the concepts are similar to the ones articulated by Schumpeter when he explained his ideas about the two different types of understanding entrepreneurs:

"The carrying out of new combinations we call 'enterprise'; the individuals whose function it is to carry them out we call 'entrepreneurs.' These concepts are at once **broader** and **narrower** than the usual. Broader, because in the first place we call entrepreneurs not only those "independent" businessmen (...) but all who actually fulfill the function (...) even if they are (...) 'dependent' employees of a company (...). On the other hand, our concept is narrower than the traditional one in that it does not include all heads of firms or managers or industrialists who merely operate an established business, but only those who actually perform that function." (Schumpeter, 1934, p74-75, bold added)<sup>xx</sup>

Schumpeter knew that by presenting a broader definition of entrepreneurship he was going against the mainstream. However, he suggested that differentiating between narrow and broad entrepreneurship<sup>xxi</sup> was important for analyzing economic evolution/development<sup>xxii</sup> and entrepreneurial dynamics.

The main driver of this thesis is to explore the possibilities of creating an efficient and sustainable local-regional economic development. Therefore, I introduce the concept of entrepreneurship in the broad sense. The idea has been partially inspired by the notion of "system of innovation in the broad sense", which was popularized by Lundvall (p.13) and Freeman (p.173) in the seminal book National Systems of Innovation (Lundvall, 2010a) first published in 1992xxiii. My intention is to explain that policy makers and academics would have more possibilities of achieving an effective local and regional economic development if they took into consideration entrepreneurship in the broad sense instead of primarily focusing on the narrow understanding. The next section analyzes different ways researchers have proposed to understand entrepreneurship.

#### **Schumpeter and Entrepreneurship**

Joseph Alois Schumpeter was born in 1883 into a German family living in Austria-Hungary (today Czech Republic). He died at the age of 66 in 1950 in Connecticut, USA. In the field of innovation studies, Schumpeter has been the most quoted researcher (Fagerberg and Verspagen, 2006). In the field of entrepreneurship, to the best of my knowledge, there is no type of ranking for the most influential researchers; arguably, however, he is one of the most referenced together with Shane Scott, Saras Sarasvathy, Israel Kirzner, David B. Audretsch and Zoltan Acs, among others who are all still alive xxiv. Schumpeter, as someone who wrote in the early XX century, is often quoted first and is cited in thousands of publications. Researchers tend to use the definitions from his early writings. Ironically, the bulk of entrepreneurship researchers (who usually quote Schumpeter) have not paid much attention to Schumpeter's later work. This is unfortunate because his earlier writings are related to entrepreneurship in the narrow sense, while the latter ones discuss entrepreneurship in the broad sense.

After Schumpeter's death, some researchers discussed the "Schumpeterian entrepreneur" (Strauss, 1963; Kanbur, 1980). This entrepreneur was "essentially disruptive, destroying the pre-existing state of equilibrium" (Kirzner, 1999), who was also seen as a sort of hero. In general, this entrepreneur has been regarded as someone who started his/her own business. It was not until recently that an increasing number of researchers have pointed out that the drivers of economic growth were actually the "Schumpeterian entrepreneurs and intrapreneurs" (Carree and Thurik, 2003)<sup>xxv</sup>. Note, however, that they still see the "Schumpeterian entrepreneur" and the intrapreneur as two distinct groups of individuals. When Schumpeter defined entrepreneurship in the broad sense, he knew he was confronting the mainstream view of his time (a view that has not changed much in nearly a century). He suggested, for example, that some innovative "employees of a company" (see previous quotations of Schumpeter, 1934) are more important to entrepreneurial dynamics than some business managers. This innovative entrepreneurship by employees has later been called by the business management literature "corporate entrepreneurship" (Burgelman, 1983; Shils and Zucker, 1979) or "intrapreneurship" (Pinchot, 1985). Intrapreneurship is something that even today academics outside the business management and administration literature have not paid much attention to.

# 3.2 Methodological Approaches to Entrepreneurship Research

This section introduces five different ways entrepreneurship scholars approach the study of entrepreneurs. These ways of doing research should not be confused with the study of different types of entrepreneurs.

The purpose of this section is to familiarize the reader with the wide range of

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entrepreneurship approaches and point out their different scopes. By doing so, I can then introduce the entrepreneurship perspective I use in the thesis. I should point out that the majority of entrepreneurship research is done in what I define as entrepreneurship in the narrow sense. I will also show that some researchers have influenced my understanding of entrepreneurship in the broad sense and entrepreneurial dynamics.

Ph.D. theses dealing with entrepreneurship usually contain taxonomies of entrepreneurs. For example, Berglund (2005) explains three approaches often taken in entrepreneurial studies. These are behavioral (more empiricism, mainly quantitative), cognitive (more related to rationalism, mainly quantitative) and discursive (more related to interpretavism, mainly qualitative). Furthermore, another framework Sørensen (2007)provides for understanding entrepreneurship. Through a literature review, she presents Stevenson and Jarillo's (2002) three main streams of research, namely: economic, psychological and management. Then she elaborates on a type of taxonomy which puts the first two, economics and psychological, into more historical traditions and a third, newer tradition called management. Berglund and Sørensen mainly focus their work on individuals who start businesses, or entrepreneurship in the narrow sense.

Excessive focus on entrepreneurship in the narrow sense is also present in academic journals. In an article containing one of the most comprehensive literature reviews of the rich and diverse (European) entrepreneurship research, Hisrich and Drnovsek (2002) categorize 641 articles from 18 academic journals specialized in the field as well as conference proceedings (Babson, European Small Business Seminar [ESBS] and Research into Entrepreneurship [RENT]). Influenced by Gartner's (1985, 1990) entrepreneurship framework, they propose five different categories of how to understand entrepreneurs: a) individual (e.g. gender, ethnicity), b) environment (e.g. SME support, employment, financial markets, spill overs, venture capital, alliances), c) process (e.g. growth, strategy, internationalization, marketing, human resource), d) organization (e.g. firm creation, success, survival, performance), and e) transition economies (e.g. regional development in Eastern Europe)<sup>1</sup>. Again, all the categories listed above are primarily related to what I describe as entrepreneurship in the narrow sense. The next paragraphs explain how the

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<sup>&</sup>lt;sup>1</sup> They also make a secondary classification based on their theory base. Most of them are more like a contextual theory since most journal articles do not significantly develop their theory due to space constrains. The following subjects do develop theory in journal articles: a) economic theories, b) business strategy, c) cognitive, d) finance, e) sociological and d) psychological. An analysis of this subject is out of the scope of this thesis.

work of Bergland (2005), Sørensen (2007), and Hisrich and Drnovsek (2002) are connected to my thesis.

The approaches taken by Berglund (2005) and Sørensen (2007) show the strong degree of focus on entrepreneurship in the narrow sense, as they only look at individuals who have started a business and not other types of entrepreneurship. However, their categorizations could be useful to better analyze the different actors across entrepreneurship in the broad sense. For instance, using Bergland's approach, Article 3 (which I have mentioned uses entrepreneurship in the narrow sense) would be in the cognitive strand, and my overall Ph.D. research could be framed as discursive-interpretavism, which "emphasizes that entrepreneurial action must be understood in relation to its greater context" (Berglund, 2005, p. 24). According to Sørensen's categories, my overall research is related to her third category of management. Among the five images of entrepreneurship that she proposes (i.e. mechanized, evolutionary, methodological, contingency, behavioral/cognitive), it could be argued that most of my Ph.D. research falls into contingency. The contingency image has an ontological presumption that would be defined by "individual and social aspects, without disregarding the environment. (...) It sees the entrepreneurial process as an open system" (Sørensen. 2007, p. 161). In this regard, the epistemological purpose would encapsulate a focusing tool to explain the entrepreneurial process. The environment is also very important for understanding the entrepreneurship process.

In Hisrich and Drnovsek (2002), there are a few articles that examine aspects related to the broad sense of entrepreneurship, but from my scrutiny, I can not find one that covers the complete view of entrepreneurship from a broad sense. In relation to the five categories they present, my overall Ph.D. research and understanding of entrepreneurship can be classified as a combination between environment and process. In Article 3 special efforts have been taken to bring together the person and the environment. Nonetheless, it is still regarded as entrepreneurship in the narrow sense because it only considers the entrepreneurs as owners of firms and does not consider intrapreneurship or not-for profit, both key aspects of entrepreneurship in broad sense. Using the categorization of Hisrich and Drnovsek, Article 3 would be (as mentioned in the article) an analysis of the combination of individual and environment. It also borrows much from the organization strand by taking into consideration start-up decision and success.

Hisrich and Drnovsek (2002), Berglund (2005) and Sørensen (2007) have been selected to show the highly different analyses in their research for two reasons.

The first is to point out that their approaches can be used to better understand different types of entrepreneurship, including entrepreneurs in the broad sense. The second reason, implied in the first, is that the vast majority of research, although very wide and rich, has predominantly been carried out in entrepreneurship in the narrow sense.

On the other hand, other scholars, in order to understand economic development, go well beyond entrepreneurship in the narrow and even broad sense. Even though their central focus is entrepreneurship, they end up attributing economic development to the geographical environment. In a way, Julien (2007) and I both talk about entrepreneurship in the narrow and more broad sense. He uses some interesting metaphors to compare various entrepreneurship research approaches to the work of four famous detectives from fictional criminal literature. The characters are Columbo, Sherlock Holmes, Maigret and William of Baskerville. Through the use of these characters he is able to articulately define different entrepreneurship approaches.

The first detective is Columbo<sup>xxvi</sup>, a "naive policeman with his drab raincoat, star of a number of films, is simple, if not simplistic. (...) The audience knows from the outset who is guilty, and the detective quickly identifies the right suspect." The second detective is Sherlock Holmes, who is a "much more complex detective who finds the guilty party by gathering clues and looking at where they were found and how they are linked (...) Clearly the milieu plays a role in supporting [the] action." The third detective is Maigret. He concentrates on the "history and psychology, explaining that killers rarely choose their victims by chance (...) the detectives need to put themselves in the victim's shoes". The important part to this approach is not the "entrepreneur, but what he or she has done and is doing now, and why". The last detective is the medieval Franciscan monk William of Baskerville, the "detective who goes further in his search for the truth". Julien explains that:

"In seeking out the people responsible for a series of deaths in the Melk monastery in the fourteenth century, Baskerville realized he would have to go beyond the monks' personal conflicts, jealousy and hatred in order to understand what had happened. For example, there was the long conflict as to whether the Emperor of the Pope should lead the Empire, and then the conflict between the minor orders, including the Franciscans, who supported the Emperor, and the major orders—the Dominicans—who supported the Pope. (...) The murders were simply an outcome of all these conflicts" (p. 16).

Julien shows four different ways of understanding a crime as a metaphor for how to understand entrepreneurship and its role in economic development. The simplest detective could be compared to research that only looks at official start-up entrepreneurship rates or interviews a couple of entrepreneurs without much consideration for the environment. Following Julien's argument, the most advanced researcher would attempt to look at multiple factors surrounding entrepreneurial activities even to the point of suggesting that the enterprises in certain locations "were simply an outcome" of the environment. Julien (2007) many times uses the approaches of Sherlock Holmes and Maigret to understand entrepreneurship, but at the end of the book, he wraps up his theory in William of Baskerville fashion by emphasizing the environment. The book xxvii focuses on three factors very closely related to the analysis of this thesis—the combination of local economic development, entrepreneurship and a type of social transformation. I take a very similar line in my thesis. When he uses detective Baskerville's approach, he exits the limits of entrepreneurship in the narrow sense xxviii and crosses over into the borders of entrepreneurship in the broad sense. My research has been influenced by the work of regional economists like Julien and other economic geographers that stress the importance of the environment combined with the individual. Hence, the next sections, present a 'broader' entrepreneurship that includes a wide variety of entrepreneurs linked to the environment. I see the environment as being related to specific historical and socioeconomic factors, among other institutions.

As discussed in the previous section, Schumpeter has already reflected on these types of issues. The following way of understanding entrepreneurship is relevant to me because it can be related to what I refer to as entrepreneurship in the broad sense; in turn, this is linked to the last "Mark", as explained in the next two paragraphs.

In order to organize the extensive work of Schumpeter on entrepreneurship and understand its relationship to innovation, Chris Freeman proposes categorizing Schumpeter's work into two different theoretical models (Andersen, 2009) known as Mark I and Mark II (a categorization first used by early XX century British military tanks). Mark I considers established firms to be conservative in order to focus on the single entrepreneur who is coming up with an innovation by creating a new firm. On the contrary, in Mark II, Schumpeter points out that innovation is "not any more embodied *typically* in new firms, but goes on, within the big units now existing [within large companies]" (Schumpeter, 1928: 70, his italics). These established firms perform repeated innovations in which

intrapreneurs play a key role. The Mark I and Mark II models are quite acknowledged by innovation scholars.

Andersen (forthcoming) is relevant for this section because as he has recently proposed the addition of Mark III and Mark IV models. In these models, the innovation process goes far beyond the economic systems in which entrepreneurs are normally seen to perform their tasks. Mark III refers to the relationship between the entrepreneur and the public sector, and Mark IV examines the entrepreneur in a context that not only includes the public sector, but also the environment. Here Andersen goes far beyond Schumpeter by suggesting "models that include the environmental impact on evolution, and vice versa" (Andersen, forthcoming). Summing up, Mark I focuses on the classic entrepreneur, Mark II includes the intrapreneur, Mark III includes both I and II plus innovative entrepreneurs in the public sector (sic), and Mark IV includes I, II, and II and takes into consideration the influence of the particular environment. According to Andersen's categorization, Mark IV may be the way Schumpeter would suggest we could better understand local/regional economic development. I will explain more about the characteristics of these entrepreneurs in Section 3.5.

In conclusion, entrepreneurship research is very broad and can be said to depend on its orientation (Hisrich & Drnovsek, 2002), how entrepreneurial action is tackled (Berglund, 2005) and the methodological approach it uses (Sørensen, 2007). All these authors suggest that entrepreneurs are a very broad group with many internal variations. Nonetheless, from my perspective, these approaches have only focused on the narrow sense. In contrast, some researchers like Julien (2007) also introduce different ways of understanding entrepreneurs. Julien's "Baskerville approach" is almost within the bounds of entrepreneurship in the broad sense, although he gets so broad that he argues that the entrepreneurs are not as important as the milieu. Thus some approaches are too narrow, and others are perhaps too broad. The late work of Schumpeter seems to be the most suitable for the overall approach of this thesis. From Andersen's perspective, it is only Schumpeter, in his writings at the end of his life who best describes the different ways of approaching entrepreneurship understanding. Schumpeter will be referenced again when discussing entrepreneurship in the broad sense as I have found his proposals, which go beyond entrepreneurs and their firms, to be the most fitting to my whole Ph.D. research.

In the sections 3.3 and 3.4 I will discuss the concepts of entrepreneurship in the narrow sense and the broad sense. To make this easier, I will first introduce the

'Entrepreneurship Matrix'. This matrix has the main entrepreneurial types that the literature captures.

## 3.3 Entrepreneurship Matrix

My particular vision of entrepreneurship has also evolved. After my master's degree in entrepreneurship and innovation and given my particular entrepreneurial experience, I understand the importance of entrepreneurs and intrapreneurs. Upon starting the Ph.D. project and learning more about the entrepreneurial dynamics in the municipality of Frederikshavn, I recognized the important of entrepreneurs who were not motivated by monetary profit. In May 2008 at the Regional Studies Conference, I presented my idea of entrepreneurs in a table similar to the one below.

Table 1 Entrepreneurship Matrix (Freire-Gibb, 2008)

	for profit	"not-for profit"
	classic entrepreneur,	creators of NGOs, foundations,
entrepreneur	common firms	social entrepreneurs, community
	(formal and informal)	<u>entrepreneurs</u> , etc.
intrapreneur	corporate entrepreneurship, new business units, parental owned spin-offs, franchising, etc.	CSR, institutional entrepreneurs,
		certain government workers,
		not-for profit organizations,
		continuous NGO projects, etc.

*Italics means in the private sector.* Underlined means in the private sector.

No italics or underlining means it is part of the "third sector"

This matrix represents the main actors for entrepreneurship, divided in two columns: for profit and not-for profit, and two rows: entrepreneurs and intrapreneurs. The first cell [entrepreneurs & for-profit] contains the classic entrepreneur and/or the common firm, where most research focuses its attention. Informal and the illegal enterprises (not necessary criminal<sup>xxix</sup>) are heavily understudied. As previously explained, this thesis focuses on Western countries, making the informal economy less important to consider than in developing countries. However, even in the OECD-Western European countries, the "Shadow Economy" in percentage of GNP is on average 18% xxx.

The second cell [entrepreneurs & not-for profit] includes all the actors and networks that create foundations and thousands of non-governmental organizations. In developing countries, NGOs are sometimes dubbed as the Aid

Industry and are oriented towards economic development; in Western countries many NGOs are oriented towards the cultural sector. While there is much research on these types of organizations, in Western countries they are not considered to be major local economic development influencers. Nonetheless, any local economic development agency would do whatever possible to attract a not-for-profit hospital or higher education center (more common in the United States) that could hire hundreds of people. Another group in this cell is what has been called community entrepreneurs (Borch, Førde, Rønning, Vestrum and Alsos, 2008; Johannisson and Nilsson, 1989; Lotz, 1989). These are individual entrepreneurs who help other entrepreneurs establish their businesses either by sharing knowledge, vouching for them or helping them access to networks. For most entrepreneurship researchers, many of the elements contained in this cell are not considered to be part of entrepreneurial dynamics

The third cell [intrapreneurs & not-for-profit] includes intrapreneurship or corporate entrepreneurship and the process of creating new business units and/or projects. Here most of the research comes from the business management literature. Economists, economic geographers and economic planners have paid much attention to classic entrepreneurs while paying little attention to intrapreneurship. Arguably, it would be more effective if entrepreneurship scholars paid equal attention to intrapreneurs and classic entrepreneurs since "Studies have shown that while Denmark has a relatively low entrepreneurial rate among developed countries, it has the highest level of intrapreneurship in the world, only after Hong Kong (Hancock, 2004)" (Article 1).

Going back to the Entrepreneurship Matrix, the last cell [intrapreneurship & not-for-profit] is perhaps the most complicated to analyze. Here the individuals in charge (either in form of actors or networks) of creating important projects for big corporations or organizations are encompassed even if they do not have an explicit for-profit goal. Among multinational companies these projects are framed under 'corporate social responsibility' (CSR) or corporate philanthropy (Frynas, 2005; Porter and Kramer, 2002). Humanitarian projects in developing countries as well as projects oriented towards social justice in Western countries continue to survive. These projects can influence local economic development, in particular when they are embedded in the political system.

Finally, the intrapreneurship category in the last cell is complicated because it also exists in the public sector. In the public sector there are certain key public officials from across the public sector spectrum in places such as the national government, local government, academia, and the military, among others. These people are important influences on the capacity and will that increase the

possibilities of having effective entrepreneurial dynamics (see Section 3.4). Similarly, these actors play an important role in supporting the right (or wrong) institutions that are crucial for entrepreneurial dynamics. These can be compared to the concept of 'institutional entrepreneurs' (DiMaggio, 1988; Crouch, 2005).

This section has pinpointed important actors in entrepreneurial dynamics. In my systemic approach this is only one part. The second part will analyze the relationships among them, in other words their networks. Networks do not only have to be local or regional but can have national and global links.

To sum up, the Entrepreneurship Matrix presents the different actors that have an important role on the economic development process. These are the actors involved in entrepreneurship, including those in not-for profit endeavors and intrapreneurs. Being able to identify them offers me a better position from which to analyze the entrepreneurial dynamics<sup>xxxi</sup>.

#### 3.4 Entrepreneurship in the Narrow Sense

Referring to the previous section, entrepreneurship in the narrow sense is mainly circumscribed to the first cell of the entrepreneurship matrix. This is described as classic entrepreneurs or common firms and excludes informal and illegal small entrepreneurs from the entrepreneurs. Entrepreneurship in the narrow sense can be defined as individuals who have a business under their name on the official records. This is a practical and useful definition for understanding crucial segments of entrepreneurship when exploring LED in part because these individuals are able to create a product or service that society demands. Some of them, after much risk and effort, are successful in making their businesses survive over many years. These businesses give these entrepreneurs the ability to provide for themselves and their families and occasionally employ other individuals.

Entrepreneurs can be useful to society, and a highly efficient, well-positioned and/or lucky minority can create radical improvements in socioeconomic innovation, yet the vast majority may make only incremental innovations. In Europe these small and medium enterprises account for 2/3 of the total employment, and in the United States they represent about 1/2 (Hill, 2011). The analysis of how they start their businesses and what they do to make them survive is sometimes called 'entrepreneurial dynamics' (Glancey, Greig and Pettigrew, 1998; Gartner, 2004; Reynolds, Carter, Gartner and Greene, 2004).

Unfortunately, because the analysis of this particular 'entrepreneurial dynamics' is solely based on entrepreneurship in the narrow sense, its analysis is therefore somewhat limited, hindering a full understanding of effective entrepreneurial dynamics.

Shane, for instance, emphasizes the importance of entrepreneurship in the narrow sense, although he does not use this term. He argues: "[Entrepreneurs are] people who found new businesses, not people who found new religions, social movements, or corporate ventures, or people who are just acting creatively" (Shane, 2008 p.3)xxxii. Thus, he makes sure the definition of the entrepreneur is limited to a specific field. At this point, I would agree with him and support his definition mainly because sometimes it is necessary to operationalize who entrepreneurs are to avoid confusion xxxiii. Analyzing entrepreneurship from the narrow sense, by viewing the classic business owner, can be very helpful. In my own work, I subscribe to this type of definition in Article 3; in reality, the definition we used had to be even narrower xxxiv for our statistical purposes. In that article, Nielsen and I present some entrepreneurship theory and show how different geographical locations can affect individuals. By using entrepreneurship in the narrow sense, we found important factors of entrepreneurship, and their relationship to start-up decisions and survival possibilities.

Attention to entrepreneurship in the narrow sense has come from quantitative researchers as well as qualitative researchers. Nevertheless the vast majority, if not all, of quantitative entrepreneurship research has to be categorized within entrepreneurship in the narrow sense, because it is futile to put the main entrepreneurial actors in a mathematical model. A statistician can use models based on the rates of individuals who have started a business and then calculate different variables in many fashions, but these hypothetical models would be much more complicated if, for example, they considered people who did not start new businesses, but instead stayed within firms and started new departments or projects. Powerful databases (like the one we worked with in Article 3) can track rates of spin-offs<sup>xxxv</sup>. However, at the risk of confusing the reader, I will give the following example: the line between an "entrepreneur" (starting project X in a new firm xxxvi), an "intrapreneur" (starting project X in a new department) and a new employee (starting project X in another firm) is certainly a very fine line. In other words, Peter, the one with the idea of Project X, would be glorified by some researchers as a great entrepreneur if he chose to start a new business but would be completely overlooked by the same scholars if he did it within a company. This is unfortunate because in reality most of the knowledge that leads to innovation and economic development in our societies

is done within experienced companies (Lundvall, Johnson, Andersen and Dalum, 2002). This phenomenon is not researched by most quantitative entrepreneurship researchers. In conclusion, quantitative-only researchers are better off sticking to entrepreneurship in the narrow sense because it is harder to track entrepreneurs within firms or the public sector xxxvii.

Entrepreneurship in the narrow sense is highly important; nonetheless, in order to foster effective entrepreneurial dynamics, it is crucial to understand and promote entrepreneurship in the broad sense. Unfortunately, policy and entrepreneurship research (in particular research interested in LED) has barely paid attention to entrepreneurship in the broad sense. Furthermore, quantitative research is very limited in its ability to track entrepreneurship in the broad sense. In review, the dictionary definition is what I use to refer to entrepreneurship in the narrow sense. Following this line of thought, Article 3 uses this more strict definition of entrepreneurship. My research in general, however, goes beyond this definition to investigate a broader type of entrepreneurship, which is explored in Article 1 and Article 4.

### 3.5 Entrepreneurship in the Broad Sense

This section as well as the next one (3.6) introduce the key concepts of the thesis. While entrepreneurship in the narrow sense is very important, its active actors are also included in entrepreneurship in the broad sense since entrepreneurship in the narrow sense only refers to entrepreneurship in the first cell of the Entrepreneurship Matrix (Figure 2). I believe that by fully understanding entrepreneurship in the broad sense, cities and regions will have more possibilities of improving their entrepreneurial dynamics and economic development.

I chose six main traits of entrepreneurs that are not usually found in the mainstream understanding of entrepreneurship. These characteristics highlight the striking difference between Schumpeter's approach in his later writings and those in the popular definition of entrepreneurship. This view of entrepreneurs, articulated by Schumpeter, is acknowledged throughout the literature; however, rarely, in the ocean of entrepreneurship literature are the points taken as a whole and used together the have been put forward by many researchers, but to the best of my knowledge, Schumpeter was the first to include all of these traits altogether. For simplification purposes, I only quote him since I want to emphasize his broadening view of the entrepreneur from his originally narrow concept (Schumpeter, 1934). In the Mark I model he described the entrepreneur as the man who set up an innovative firm. The Mark II model, in contrast,

broadens the conception of the entrepreneur in several directions. The six different traits Schumpeter highlights have been confirmed by my work and can be seen in the four papers presented. Academics and policy makers must acknowledge entrepreneurship in the broad sense or there will be inescapable problems for efficient economic development. The six traits below have already been presented in Article 4 and are a complementary analysis to the previous introduction.

- a) The entrepreneur's main motivation is not monetary profit. This statement contradicts the basic dictionary definition of an entrepreneur. The majority of economists believe economic profit is at the core of an entrepreneur's endeavor (as they are biased to economic factors). Because the mainstream definition believes that entrepreneurship is about economic profits, some small not-for-profit entrepreneurs are not treated seriously. Furthermore, the free reign given to the idea of for-profit entrepreneurship may have paved the road to things like speculation (euphemistically called "investment") in housing and the stock market. Article 1 and 4 show that many leaders of key projects are not motivated by pecuniary profit. Article 3 which explores the motivation of business owners suggests the same thing.
- b) It is not unusual for the entrepreneur to be a dependent employee. There is too much focus on supporting the establishment of new businesses per se. Also, while industrial policy addresses large companies, it does not really consider their intrapreneurs. Betting on an individual who has a greater possibility of failure is peculiar. Article 1 discusses the leading roles of several employees in the lighting industry as intrapreneurs.
- c) Entrepreneurs often resemble a network (instead of an individual). Linked to the previous trait, this one claims that there is too much focus on the individual xxxix. For example, many (especially in the United States) believe that perseverance is the most important ingredient for entrepreneurial success. This perseverance is often portrayed as an individual characteristic. The importance of a network is overlooked. Article 2 emphasizes the importance of networks in shaping society and the economy.
- d) The entrepreneur makes things available to the economy and society (an inventor is not the same as an entrepreneur). Many people come up with great ideas, achieve scientific discoveries or even invent products and services. Entrepreneurs, however, are the ones who put these things on the market. Academics and policy makers have focused too much on invention and high technology. Article 4 discusses the public support going to Silicon Valley or

large universities due to the bias towards science and high technology. Meanwhile, the entrepreneurial dynamics of adjacent cities is typically neglected.

- e) The entrepreneur can be a civil servant. Policy makers and the private sector should be more aware of the potential benefits the public sector can offer in terms of social and economic benefit and vice versa<sup>xI</sup>. Articles 1, 2 and 4 show public employees involved in many key projects that can change society and the economy.
- f) In a proper environment, the entrepreneur can improve socioeconomic factors. Inspired by socialism, some have a negative perception of entrepreneurship. Perhaps this is because entrepreneurship is equated to entrepreneurship in the narrow sense. In contrast,, some believe that entrepreneurial achievements automatically blossom in the right environment. Still others believe that the entrepreneurs are special creatures who transform society, fighting against a bad environment. The truth (according to Schumpeter) probably lies somewhere in the middle, however. Article 3 presents research supporting the impact of environment on entrepreneurship while emphasizing the characteristics of the entrepreneur versus the non-entrepreneur. Also articles 1 and 4 provide evidence to support these views.

The table below summarizes the six traits related to entrepreneurship in the broad sense, the year in which the trait was explicitly suggested by Schumpeter<sup>xli</sup> and how each trait has influenced the four articles included in the thesis

Table 2 Six selected traits of entrepreneurship in the broad sense

Relevant traits of	Schumpeter	Portrayed
entrepreneurs	source	in articles
a [money not main motive]	1934	1, 3, 4
b [intrapreneurs]	1927	1
c [often a network]	1949	2
d [only sometimes inventors]	1949	4
e [can be civil servants]	1949	2, 1, 4
f [environment crucial]	1949	3, 1, 4

In this section, I have explained more about what the term entrepreneurship in the broad sense means in relation to my work. The next section places entrepreneurship in the broad sense into a process that could promote a more

effective regional and local economic development.

#### 3.6 Entrepreneurial Dynamics

Entrepreneurship in the broad sense has been defined and some empirical evidence from the articles pinpoints its role in achieving an effective LED. This section gives details about the process through which a more effective LED can be achieved. In order to explain this continuous process, I have purposefully chosen 'entrepreneurship in a broad sense'. Once the main entrepreneurial actors are taken into account and considered as not isolated actors, then researchers and policy makers may be better positioned to embrace the next element of 'entrepreneurial dynamics'. The entrepreneurial dynamics contain the network evolution of the main actors. Here it is important to assess the actors and the networks in a systemic way.

Entrepreneurial dynamics refers to the process in which the entrepreneurs undertake their activities and evolve. The dictionary defines dynamics as "the forces or properties which stimulate growth, development, or change within a system or process" (Oxford). Hence, the process is entrepreneurship, and the forces or properties which stimulate growth are the main actors and their networks. The dynamics will make sense if these are seen as working as a system in which the different actors interrelate effectively.

Beginning on the left of the diagram (Figure 3), entrepreneurship in the broad sense is represented. Then, from the top 'capacity' and 'will' are depicted as affecting the process by which entrepreneurship in the broad sense evolves into 'entrepreneurial dynamics'.

'Capacity' and 'will' are two distinct things that have been recognized as crucial factors in understanding the development of local governments (Sokolow, 1981). First, 'capacity' relates to the available resources of a particular geographical location. These resources are mainly related to labor and capital. 'Capacity' is an important predetermining factor in much economic evolution. For example, while leaders in two different cities or regions can support entrepreneurship in the broad sense, if one is rich and another poor (either in labor or capital), their outcomes may be quite different. Poor places tend to be at a disadvantage.

'Will' also matters. In my head, 'will' represents the intentions of the local leaders concerning economic development of their city and region. The local leaders can be in the public, private or 'third' sector. Examples of the differing

'wills' in Vallejo and Frederiskhavn could be given, but perhaps a better example comes from the Danish cities of Nakskov and Frederikshavn. In the 1970s, both were thriving shipbuilding cities. Around a decade ago, Nakskov had the 'will' to implement classic industrial policy development (Hansen and Smidt-Jensen, 2004), and Frederikshavn had the 'will' to initiate a strategy to attract the creative classes through the use of the experience economy (among other strategies). The different 'wills' have influenced each city's economic development process.

'Capacity' and 'will' are important factors in determining policy making. In turn, 'capacity' and 'will' are affected by institutions and can affect institutions<sup>xlii</sup>. Below, the five main elements I refer to are depicted.

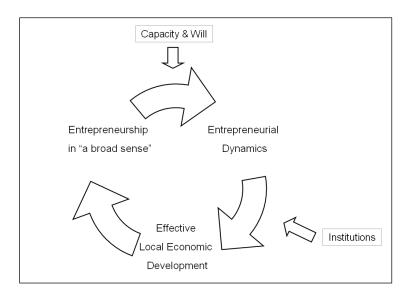


Figure 2 Model to effective LED

The second important element, located in the bottom right corner, is institutions. Institutions are significant to each element and process of the figure. However, they are important in determining the entrepreneurial process (understood from a broad sense) and LED because the relationship among the actors (for example the 'trust' among them) highly impacts economic development. Institutions will be discussed in more detail in the next chapter on LED.

By promoting entrepreneurship in the broad sense through the implementation of proper institutions, entrepreneurial dynamics can create growth not only in small businesses, but also in intrapreneurship. This broader view can also create growth in organizations in the so called for-profit field and not-for-profit field<sup>xliii</sup>. Such economic growth would be more related to my idea of holistic

economic development than traditional economic growth.

This is a circulatory process in which everything must evolve except 'will'. 'Will' should take in to account the principle of fairness to others, as explained in the introduction of Chapter 4 when defining economic development, in order to reproduce economic development over time.

The path to effective LED is intimately related to a particular geographical location—defined as a specific place and its immediate surroundings. Thus, because capacity and institutions are related to a certain region (this may also refer to a city region, province or small country), small cities should not embark on this process in isolation. That said, as explained in the articles, the local economies are greatly affected by some national, supranational and global factors completely out of their control.

Going back to the first two research questions, in a positivist way, both assume that entrepreneurial dynamics and local economic development come together. Although both concepts are different, I see them as having major overlaps. Namely, rich entrepreneurial dynamics tend to create rich LED, while a suppression of the entrepreneurial dynamics usually leads to poor economic development (as exemplified by some authoritarian dictatorships). Today, in most cases, the private and public sector coexist, and it is not unusual for entrepreneurial dynamics to be sustained by government officials, cooperatives or other type of workers' associations (Article 1; Article 4).

It is important to keep in mind the importance of the geographical location on the entrepreneurial dynamics. The location is mainly local because from the perspective of entrepreneurship in the broad sense economic development is fomented by the main actors with the greatest degree of proximity. The 'first law of geography', or Tobler's law, postulates: "Everything is related to everything else, but near things are more related than distant things". However, this does not imply that national and global networks of the local economy are unimportant.

This chapter has overviewed different methodological approaches to entrepreneurship, and has introduced concepts relevant for entrepreneurship in this thesis. These include, the 'entrepreneurial matrix, entrepreneurship in the narrow sense and broader entrepreneurship. I have also explained about the 'entrepreneurial dynamics' and proposed some ideas (showed in Figure 2) which need further research.

## **Chapter 4. Local Economic Development**

#### 4.1 Introduction

This chapter will discuss regional and local economic development (LED), or how cities and regions can improve their socioeconomic factors. The issue is discussed from several perspectives in each of the four papers included in the thesis. In fact, LED is what links all four papers.

After this introduction, the chapter has two different sections. First, 4.1 is about the different LED views held by professionals and academics. The second section (4.2) then introduces key local and regional economic growth theories. This is a brief literature review of the work done in the spheres of the European Union and the United States. I focus particularly on the "systemic approach" (4.2.1) which, more than a theory, works as a combination of principles and the crossroads between LED and Entrepreneurial Dynamics (4.2.2). Before introducing these sections, I will define what I understand economic development to be.

Economic development has many definitions. My preferred definition, or idea of economic development, is more in line with the United Nations Development Program (2001) definition of 'human development' which states that: "development is about much more than the rise and fall of national incomes. It is about creating an environment in which people can develop their full potential and lead productive, creative lives in accord with their needs and interest" (p.9). The UNDP measurement includes economic and social elements. Since the UNDP's main concern is developing countries, it looks at factors such as literacy, life expectancy and years of schooling. Because my focus is on advanced economies, I am interested in other more complex measures. For example, in Western countries the literacy rate is close to 100%; therefore, unlike the UNDP, it is not one of my main concerns. However, I find their description of creating a place "in which people can develop their full potential and lead productive, creative lives in accord with their needs and interests" valuable. Popularly, this is referred to as living in a nice place and having a good life. Technically, it is much harder to measure xliv.

In my mind, economic development should always be directed by a principle of justice to others. These others can be ascribed to three groups. Fist, people in one's own community, second, people in other communities and third, other forms of life (this could be related to the work done on the basis of sustainable development). The reasoning of guiding economic development by justice to

others has been defended by religious, anthropological or humanistic arguments. From a strictly economic point of view, justice to others can be argued in short because: a) the more people within an advanced economy gives more possibilities of offering individuals more opportunities to be benefited, b) it avoids conflicts that can be damaging to individuals and c) it allows for future development without scarcity of resources. I would connect this type of economic development with what many researchers have defined as an expansion of the real freedom people enjoy (Sen, 1999).

Therefore, economic "development" is different from economic "growth" alone, an important consideration at the city level. For example, the Local Government Commission in Britain explained: "One of the biggest myths is that in order to foster economic development, a community must accept growth. The truth is that growth must be distinguished from development: growth means to get bigger, development means to get better — an increase in quality and diversity" (Local Government Commission, 2004). LED scholars Pike, Tomany and Rodriguez-Posé (2006, p. 26) also refer to this quote in their discussion about what type of LED is desired. They argue that depending on the geographical location, LED would represent something different and address different world frameworks. This thesis uses some examples that could be interpreted as only having an economic growth focus; hence, I can not overemphasize that my intention is to better understand the process which leads to equitable and sustainable LED.

This chapter addresses the importance of entrepreneurship for LED since current economic development literature gives entrepreneurship a fundamental position. For example, Audretsch (2009) explains: "It is becoming increasingly the case that it is upon this new mantel of entrepreneurship that economic policy, ranging from communities to cities, states and even entire nations hangs its hopes dreams and aspirations for prosperity and security" (p. 96). Therefore, I will give an overview of LED theories in which entrepreneurship matters. The next section discusses the different relationships professionals and academics have towards LED.

#### 4.2 Professionals and Academics

Since the dawn of cities, there have always been practitioners in charge of the wellbeing of citizens who have tried to control for things like safety, sanitation, water, trading procedures, et cetera. Such appointed individuals made sure that institutions were satisfactory for the citizens' prosperity, which can be defined as a basic form of local economic development. Philosophers like Plato and

Xenophon in ancient Greece, or Guan Zhong and Mozi in ancient China envisioned how cities should be (Yates, 1997).

In recent decades, in the United State alone, there have been 15,000 economic development organizations that employ tens of thousands of practitioners (Boyle, 1990). In Europe, cities usually have departments or offices dedicated to economic development issues. In Denmark, there are a vast number of organizations and knowledge networks that can be categorized as LED organizations (Tostensen, 2006). More prominent are the Erhvervsråd<sup>xlv</sup>, which are prevalent throughout Danish municipalities and regions. Danish municipalities have had clear LED programs since the 1940s, but not until the second half of the XX century when the Erhvervsråd took such programs over did LED programs become more professional (Snell, 1988). Therefore, over the last decades, policy makers and practitioners have paid serious attention to LED. Arguably, these specialists have contributed to the rapid growth of the Western countries since World War II.

In academia, American researchers have pointed to LED as a new academic discipline (Mier, 1991). The foundations of LED theories draw from the fields of regional economics, economic geography, resource management and planning. Today, many university programs and research centers are attempting to establish a serious theoretical framework for LED (Rowe, 2009). Interestingly, many researchers have found compelling evidence that most LED strategies fall short. They argue that besides being very hard to assess the actual performance of the projects, there are problems of zero-sum game (e.g. the national economy does not improve by moving a factory from one city to another), bad governance, and shortsightedness by local politicians, among other issues (Blair and Kumar, 1997; Dewar, 1998).

All in all, there are two distinct communities in the LED field; professionals (or practitioners) and academic researchers two communities can be compared to the Tanzanian lions and the scientists by their side. Both are watching what is going on in the Serengeti, but they have little interaction. This separation is widely acknowledged in both communities, and I have confirmed its existence in Denmark (See Article 2, section 4.2) and in the United States xlvii. As I am in the academic field, I believe that the academic community must make efforts to increase interaction with practitioners.

Another aspect of the LED debate is the tension between urban and rural (or core versus periphery) academic research. Metropolis are considered superior regardless of whether they are analyzed by practitioners or academics. Partly

because of population density and partly because of the greater amount of resources an urban environment offers, more research has been done on the urban side. The better performance of the core has been explained by the presence of localization effects, urbanization effects, and the 'creative class' argument of Richard Florida (see Article 3). In response to this information, many cities and regions have implemented economic policy based on, for example, the creative class. These endeavors are carried out by economic development professionals, something that Koo (2005) explains as possibly problematic:

"Economic development professionals often lack a theoretical understanding of the regional development mechanism. As a result, many regions simply follow fashionable ideas or recent successes of other regions without paying a fair amount of attention to what role their strategies will play in the development process. Many previous failures of economic development strategies can be attributed to such ill-informed planning practices" (Koo, 2005, p. 100)

Rowe (2009), referencing Koo, uses Florida's ideas about the "creative class" to show how an idea can become a packaged solution fit for all municipalities. As explained in Article 2, clearly something similar has happened in Denmark where ideas distilled from the combination of 'the creative economy' and 'the experience economy' were implemented throughout the periphery, creating both opportunities and threats for Danish municipalities (see chapter 5 and 7 for more about 'the experience economy'). The next sections will give an overview of some of the theories in the LED field.

### 4.3 Local and Regional Economic Growth Theories

As the thesis draws from examples of cities in Europe and the United States, it seems necessary to review theories developed on both continents. Much of the abundant research on LED is not necessarily about economic "development" as described in the beginning of this chapter, but rather about economic "growth". Generally speaking, American researchers provide "an excellent overview of practice with almost no original theory" (Rowe, 2009), while Europeans planners analyze different concepts in perhaps too much of an abstract and confusing way (Richardson, 2002). In stereotypical fashion, the American approach is more based on competition. As the work of influential Blakely (1994) explains: "In market-driven economies, communities are also marketplaces. As a result, communities must market their resources intelligently

and gain competitive advantage to create new firms and maintain their existing economic base" (p. 48). European researchers, on the other hand, are more holistic and try to avoid the type of American competition by establishing more collaboration with the public sector, which is more fitting to the European environment (Pike, Rodriguez- Posé and Tomaney, 2006). Speaking in very general terms and from my limited experience, I see that the European research is less in touch with practitioners. In the particular case of Denmark, however, while there is a divide between academics and professionals, in general, it seems less pronounced and Danish academics seem to have a better working relationship with industry and policy makers than academics in other parts of the European Union.

In order to categorize different theories in the field, I have chosen three books that discuss a taxonomy of LED theories. The following framework is based on Pike, Rodriguez-Posé and Tomaney (2006), Rowe (2009) and Blakely and Leigh (2010). Such a compilation can be categorized into six strands of thought and includes the usual social science taxonomy disclaimer that the strands are not completely separated, but are all interrelated. See table below.

**Table 3 Local and Regional Growth Theories.** 

Based on Pike, Rodriguez-Posé and Tomaney (2006), Rowe (2009), and Blakely and Leigh (2010)

Strands		Explained in
Neo-classical		
Increasing returns and cumulative causation		Arthur, 1998; Kaldor, 1981; Martin, 1999
continuir	ng regional concentration ar	nd diffusion
	commodities and factors	Myrdal, 1990 [1954]
	industries	Hirschman, 1970; Hirschman, 1988
fomenting growth poles or propulsive industries		Hansen, 1967; Parr, 1999
amalgam	nation of extended neoclassi	cal theories
	clusters	Martin & Sunley, 2003; Porter, 1998
	endogenous economics	Scott & Storper, 2003
	location theory	North, 1955
	competitive advantage	Raco, 1999; Garmise, 2006
Keynes		
economi	c base theory	Krikelas, 1992
the staple theory		Watkins, 1963
geographical economics		Krugman, 1990)
Structural and Te	mporal Change	
Marxist		Lovering, 1989; Massey & Meegan, 1989
techno-e	conomic paradigms	Freeman & Perez, 1988
Institutionalism and Socio-economics		Grabher, 1993; Pike, Lagendijk & Vale, 2000
Technological, Kn	owledge and Learning	
innovation Systems		Lundvall, 2010a [1992]; Cooke et al. 1997;
the triple helix		Leydesdorff & Etzkowitz, 1998
the product cycle theory		Vernon, 1966
Urban-Core		Jacobs, 1969, 1984; Florida, 2010
creative class		Florida, 2004, 2005, 2008
urban economic efficiency		Glaeser, 2011

The table above is explained in the next paragraph. The first is the Neo-classical strand which includes: a) increasing returns and cumulative causation (Kaldor,

1981; Arthur, 1998; Martin, 1999), b) continuing regional concentration and diffusion, such as in commodities and factors (Myrdal (1990) explains this approach) or industries (Hirschman, 1970; Hirschman, 1988), and c) fomenting growth poles or propulsive industries because economic growth tends to be around a key industry (Hansen, 1967; Parr, 1999). The Neo-classical strand can also include an amalgamation of extended neoclassical theories (such as clusters (Porter, 1998; Martin and Sunley, 2003), endogenous economics (Scott and Storper, 2003), location theory (North, 1955) and competitive advantage (Raco, 1999; Garmise, 2006). Second, are the theories influenced by the work of Keynes which include: a) the economic base theory (Krikelas, 1992), b) the staple theory (Watkins, 1963) and c) geographical economics (Krugman, 1990). These Keynian theories have a special focus on exportation. Third, Structural and Temporal Change theories which include much of the a) Marxist (Lovering, 1989; Massey and Meegan, 1989) and the b) techno-economic paradigms (Freeman and Perez, 1988). Both structural and temporal change theories focus on the importance of economic waves that change society and economy. The fourth strand is Institutionalism and Socio-economics in which markets are interpreted as social constructs (Grabher, 1993; Pike, Lagendijk, and Vale, 2000). The fifth strand is categorized as Technological, Knowledge and Learning and includes: a) Innovation Systems (particularly in the narrow sense) (Cooke, Gomez Uranga, and Etxebarria, 1997; Lundvall, 2010a), b) the triple helix, which refers to the link between university-industry-government (Leydesdorff and Etzkowitz, 1998) and c) the product cycle theory, which focuses on continual creation and diffusion of new products. The last of the six strands is what I refer to as Urban-Core (Jacobs, 1969, 1984; Florida, 2010), which has been supported by the 'creative class' theories of Richard Florida (2004, 2005, 2008) and simple urban economic efficiency theories (Glaeser, 2011).

This last strand (Urban Superiority) is highly significant for my project because I deal with peripheral cities. Since much LED research is based on findings at the core, many researchers find that peripheral places are understudied, creating a barrier for practitioners who attempt to implement the above mentioned theories in the periphery (Amato, 1993; Chrisman, Gatewood, and Donlevy, 2002; Fløysand and Jakobsen, 2008; Hite, 1997; Hobbs and Blodgett, 1999; Malecki, 2003; Rosenfeld, 2001; Westhead, Ucbasaran, and Binks, 2004). LED is highly linked to national and global trends. During periods of positive trends, economic growth can be initiated in larger cities basically because trade starts there (Jacobs, 1984). Also, during high economic growth periods, not only do firms obtain more profits, but in more populated areas, there is a tendency for a housing bubble to be created. High profits and a large housing bubble lead

many in the cities to believe they are rich and simultaneously create tension between the people in the periphery who view the city as unaffordable. In Denmark, fast economic growth from the early 1990s until 2007 occurred in Copenhagen (Andersen and Winther, 2010) and has caused peripheral areas to justly feel that, comparatively, they have been left behind<sup>xlviii</sup>.

### 4.3.1 Systemic Approach

Local economic development research, mostly carried out in the United States, has noted the importance of approaching development systemically. They may use different terms, but many of them have acknowledged the importance of the networks formed by important actors and have taken into consideration the local context (Bingham and Mier, 1997). For example Luke, Ventriss, Reed and Reed (1988) conclude in their remarkable but little known book:

"Successful economic development strategies not only precipitate from an intergovernmental contest of cities, counties, COG's (Council of Governments), and state and federal agencies, but also emerge from intersectoral collaboration between the public, private, and non profit sectors. Each sector depends on the vitality of the other" (p. 21).

Although they are talking about strategies instead of economic development per se, this way of thinking regarding networks and main actors is repeated throughout LED literature. For example, in the compilation of Walzer (2009) titled "Entrpereneurship and Local Economic Development", the idea of creating a system or more collaborations among the different actors is repeated several times. Another American scholar, Drabenstott (2006), is even more specific about the need for a "systematic approach", which includes the main parties involved in regional economic development (2006). The case of Drabenstott is significant for my work because he stresses the importance of addressing LED from a systematic approach in peripheral areas. To sum up, many LED researchers have pointed out the importance of a "basic system" or "systematic approach" to effectively tackle economic development.

The theoretical framework of this thesis is influenced by the theoretical approach of the systems of innovation (especially shown in Article 4, where I discuss systems of innovation in a broad sense). It can be argued that the system of innovation's main focus is on the strength of the networks of the main actors, taking into consideration the institutional context. From my perspective, this has

much in common with much of the LED research.

Geographically the research on systems of innovation has mainly focused at the national and regional level because the main actors (public and private) and networks involved in economic development (or innovation) tend to reside at these levels. Cities that do not constitute a city region, or regions without large cities, are highly dependent on these main actors (like Frederikshavn and Vallejo). All in all, systems of innovation are not meant to be handled by small local governments, and I acknowledge that the idea behind systems of innovation has many limitations for peripheral cities. Therefore, because I focus on the LED of peripheral towns, I do not use systems of innovation. However, I believe there are certain useful aspects which can be adapted as an "analytical concept and development tool" (Lundvall, 2007b).

The barriers of the system of innovation are not only about its limitations in peripheral cities. The concept has been criticized because of its blurriness and its continually changing nature (Doloreux and Parto, 2005; Lorentzen, 2008; Uyarra, 2011), which it may have been designed to be lost innovation scholars are the first to admit the need for further theoretical research (Edquist, 2005; Lundvall, 2007b). From my point of view, the system of innovation's main problem is that it is usually understood as the "systems of innovation in the narrow sense", to use Freeman's words. This may be because system of innovation's early work, usually the first thing read by researchers, mainly focuses on technical achievements and because the word innovation has popularly been equated to high-technology products. However, recently, innovation scholars have tried to enrich the discussion by not looking at only the STI-mode of innovation (based on Science, Technology and Innovation), but also looking at the DUI-mode of innovation (based on Doing, Using and Interacting) (Jensen, Johnson, Lorenz, and Lundvall, 2007).

As explained in the introduction of Part II [Theoretical framework], the systems of innovation (theoretically) ignores the figure of the entrepreneur. Thus, it could be argued that these theories should not be explored in my thesis. I believe, however, that the principles behind the systems of innovation do take into account entrepreneurial dynamics through their focus on empowering the networks between the different actors in the public and private sector. Fostering these networks from my point of view is parallel to establishing effective local economic development stemming from entrepreneurship in the broad sense. The American research on LED and entrepreneurship quoted above follows a similar vein of thought.

Understanding the role of actors, networks and institutions is vital to the systems of innovation. Inspired by the concept of systems of innovation, the papers included in this thesis pay particular attention to actors and networks as the keys to LED. Furthermore, the importance of a wide variety of institutions is acknowledged. The term institutions can mean agencies or established organizations, yet the meaning used in the systems of innovation and much LED literature is broader, including formal institutions (such as the legislation, public policies, and patents) as well as informal institutions (such as trust, social capital, cooperation methods, and other sociological factors and cultural conventions). Besides these types of institutions, Sforzi (2003) pinpoints institutional entities "like local authorities, local structures of political parties, entrepreneurial and trade union organizations which support and dynamically maintain those practices over time. Human agents of production act through such institutions, rather than as blind followers of rules or as fully autonomous actors" (Sforzi, 2003 p.xi). All of these institutions can be said to play an important role in LED, thus considering local institutions is crucial for understanding the impact of key actors and networks.

Paradoxically, while many social science scholars analyze and theorize very differently, when it comes to policy suggestions, they tend to be quite alike. For example, entrepreneurship policy is remarkably similar across countries and regions regardless of the political spectrum (Lundström and Stevenson, 2001; 2005). When looking at things from a systemic approach, both LED and innovation scholars ask governments to make education available to all citizens (Taylor, 1997; Gregersen and Johnson, 1997). As Rowe summarizes: "Economic Development can be explained as a complex process that is created from a successful fusion of entrepreneurship, education and skills of the community, driven largely by market forces" (p. 6). The next section will discuss the intersection between local economic development and entrepreneurship.

# 4.3.2 Local Economic Development and Entrepreneurship

Section 4.3 has attempted to outline key theories of local and regional economic growth. All of these theories address the private sector, but not all of them specifically analyze the entrepreneurial process. Therefore, I would like to give an overview of what the theories say regarding the relationship between entrepreneurship and LED.

Economic development professionals, public officials, consultants and

academics understand the critical role the expansion of the private sector plays in economic prosperity. Blakely, who has been a public official, a consultant and an academic in turn, argues in his seminal book:

"Business development is an important component of local economic planning because the attraction, creation, or retention of business activities is the best way to establish or maintain a healthy local economy. Such an economy is not merely one that is growing. Community business development is a new entrepreneurial role for planners (...)" (Blakely, 1994, p. 178)

Business development is pointed out as important, but its implementation per se is a key challenge for a local government. The intersection between entrepreneurship and LED has been widely discussed, and both processes can be characterized as being highly complex. Thus, understanding them and empowering them is not very clear. (Bathelt, Malmberg, and Maskell, 2004; Asheim and Coenen, 2005; Boschma, 2005; Pike, Rodríguez-Pose and Tomaney, 2006; Rodríguez-Pose and Storper, 2006; Scott, 2007). Many scholars convey the idea that entrepreneurship is created around the idea of a milieu, environment or networks, more than single individuals (Johannisson and Nilsson, 1989; Saxenian, 1994; Bellini, 2000; Julien, 2007;). Similar to local growth theories, a tension between rural/peripheral communities can also be found in entrepreneurship approaches as many claim that entrepreneurship is mainly concentrated in the vibrant urban cities (Jacobs, 1969; Acs and Malecki, 2003; Benneworth, 2004; Acs, 2008; Florida, 2010;). The idea that peripheral areas constrain entrepreneurial dynamics is influenced by path dependency, which claims that while geography matters, it is not more important than history (David, 2005; Hassink, 2005; Martin and Sunley, 2006)

When scholars discuss entrepreneurship, conflicting evidence is sometimes presented. For example, a more neoliberal approach shows that entrepreneurship, led by the hand of classical liberalism, can bring about much wealth (Acs, Audretsch, Braunerhjelm, Carlsson, and Strasse, 2004; Wong, Ho, and Autio, 2005; Blakely and Leigh, 2010; Glaeser, 2011;). On the other hand, what I refer to as 'Anglo Marxism' in economic geography posits that when entrepreneurship and capitalism¹ are uncritically accepted as bring about the greatest efficiency, much misery can be created (Goodman, 1979; Harvey, 1989; Walker, 2010).

The section has given a brief overview of some of the main strands of research in the discussion between entrepreneurship and LED. This discussion has

provided a brief list of characteristics that I believe offer interesting insight into understanding the role of entrepreneurs in LED. Many of the insights given could be much further developed; however, given the resources and scope of the thesis, I judge this is enough. Each of these theories has affected my work to different degrees and some have been deemed more useful than others to the overall thesis. In the articles, I also mention the work of other relevant scholars. For example, in Article 1, there is an overview of some theories regarding (temporary) clusters. In article 2, I examine the Danish research behind local economic development based on the experience economy (see references in the article) and the role of the "creative class", which has been wrongly glorified and vilified. In article 3, we put to test the theories of Jacobs (1984) and Florida (2008, 2010), which suggest that individuals in urban areas are of a special kind. Finally in Article 4, I am greatly influenced by LED scholars and innovation scholars who claim the importance of a "systemic approach" in order to achieve effective socioeconomic development.

## **Chapter 5. The Experience Economy Strategy.**

The Experience Economy (TEE) was first popularized by the American marketing field literature in the late 1990s and gained a strong influence in Danish regional and local economic development. The concept was promoted and has been used as a way to generate economic growth across national sectors and at both regional and municipal levels. My Ph.D. project (as well as others) was funded by public institutions, specifying I research the relationship between TEE, entrepreneurship and regional development. The concept can broadly be described as the field related to leisure activities, or generally when people are not working. This idea is extremely ample, as it is defined by expenditures made on entertainment or a "memorable experience" (Pine and Gilmore, 1999 p. 99).

The support of the national government was decisive for the rise of the TEE in Denmark. In September 2003, the Ministry for Economic and Business Affairs and Ministry for Culture made a joint declaration about *Oplevelsesøkonomien*<sup>11</sup> (the experience economy). This was done by the liberal-conservative party, who won the national elections 18 months earlier. After this key moment, many people in the public and private sector in peripheral regions of Denmark began paying more attention to the idea of TEE. For example, a study of 1006 firms in the North Denmark Region suggested that the first priority of the regional government should be on TEE and/or tourism (46%)<sup>lii</sup> (Christensen, 2006). Casperson (2009) reports how widespread the idea was and how 1/3 of official municipal strategies in Denmark had local development lines based on TEE/Tourism. In the Danish periphery, which tends to have a lagging economy when compared to the core of the nation, TEE has clearly been viewed, as a potential LED strategy in order to not be left behind. For example, in North Denmark, a few years ago all municipalities had municipal strategies based on TEE (Lorentzen and Krogh, 2010). Over the last five years, all across Denmark, dozens of academics as well as consultants have done their fair share to support the advancement of TEE. Serious questioning about TEE did not come until the end of 2008 when Denmark was engulfed in the economic crisis.

There are a multitude of projects that can be related to TEE that have been examined in Denmark. For example, Article 1 about the Lighting Festival is a project that can be categorized as within the scope of TEE because it was supposed to offer 'memorable experiences' to the citizens and visitors of Frederikshavn. As previously mentioned, I am more explicit about the relationship between the Lighting Festival and TEE in a similar version of Article 1, in a chapter in Lorentzen and Smidt-Jensen (2011), which is not

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included in the thesis.

In Article 2, I also reference a great variety of discussions on the potential benefits of TEE in the fields of architecture, business, city planning, entrepreneurship, local economic development, marketing, music, marketing and societal transformation, among others. Taking into consideration its size, Denmark was probably the country which had focused the most on expanding research on TEE. Besides providing gratifying experiences to people, TEE has had several other positive affects including more attention on cultural projects, the establishment of new networks, and most importantly, an innovative mentality that has spurred many projects. This innovative and creative thinking capacity can be considered a positive characteristic which has been fostered by many of these projects in Danish society. Thus, the support of TEE could be categorized as part of a holistic approach to socioeconomic development.

On the other hand, heavy expenditures in promoting 'cool' experiences can be questioned. Some specialists in regional economic development criticized TEE projects for conveying the idea that these expenditures will eventually trickle down into wealth for the society as a whole. Perhaps coincidentally, when the global economic crisis came, many researchers started to heavily criticize TEE even though many of them had initially praised it (see Article 2). Article 2 also discusses the evolution of the concept of TEE in Danish local economic development and several researchers are quoted to show that an excessive focus on TEE is not a good strategy for economic development.

One of the main constraints of assessing TEE projects and economic development is causality. For example, Copenhagen offers a wider availability of leisure and cultural activities than other cities in Denmark, something its higher population density allows it to do. TEE narrative would suggest that qualified people, or those related to the 'creative class', would be attracted to these places because they offer more 'experiences' (Lorentzen, 2009; Bille, 2010b;). In turn, local governments in the periphery have bought into supporting leisure and cultural projects. A similar phenomenon of support for specialized regional food and beer production has also occurred. There are certainly many positive aspects of regional beer production, and TEE can be related to regional economic development (Arthur, 2009); however, other research suggests that specialized beer production occurs because of the higher economic power and not the other way around. For example, Julien (2007) explains:

"Small breweries have always existed - an example would be the restaurant breweries in many regions of Belgium. What has changed is the fact that, after declining steadily, they have now sprung back to life, aiming for a target consumer group of professionals with high spending power seeking new power over their consumption" (p.161).

Between 2000 and 2008, Denmark also saw a strong revival of regional microbreweries (from 19 to 120). The search for flavors other than the ones sold commercially could be attributed to the rise of TEE. However, as suggested by Julien, this has to be put into the context of economic cycles. In fact, in recent personal communication with an official from Danish Beer Association he admitted that in the last couple of years, the number of breweries has been decreasing.

When I started my Ph.D., the use of TEE was ubiquitous in Denmark. For a note for foreign readers, besides the examples given in Article 2, mostly from the public sector, there are also examples everywhere in the private sector, even in the banking industry, an industry synonymous with seriousness. A notable case is Jyske Bank; the third largest bank in Denmark, and the biggest one with headquarters outside of Copenhagen (please see Appendix 4 on the Jyske Bank, which attempts to give an idea of how entrenched TEE was in the Danish society and economy).

On my Ph.D. application in 2007 when referring to the term experience economy, I wrote "this has to be seen with healthy skepticism". During the first months of my Ph.D., using my business and economic background, I tried to measure the performance of the experience economy. My research led me to what other TEE scholars have also encountered: "It does not make any sense trying to measure the experience economy" (Bille, 2010a). Further complicating the process is a wide variety of TEE definitions, which makes it very unclear what is trying to be discussed.

My original research question was: "How does the experience economy affect entrepreneurship and local economic development?" Since TEE is not measurable and barely defined, it makes it difficult to analyze the above research question or asses TEE's relationship to other concepts.

Concepts in the social sciences are hard to define and measure, but local economic development, for example, can be measured by income variables, housing expenditures, unemployment-employment size, type of employment,

educational scores, energy consumption, transportation, utility availability, number of firms, entrepreneurial rates, etc. The field of entrepreneurship can also be measured by start-up rates, opportunity/necessity decisions to start a business, return of investment, firm employment, introduction of new products and services into the market, innovation process, debt ratios, etc. However, the experience economy based on "memorable experiences" is just too fluffy to measure.

Take the example of measuring the blurry concept of love. The above research question would then read: "How does *love* affect entrepreneurship and local economic development?" There are infinite ways to discuss love: how it makes us feel in our hearts and how it is part of our daily lives; yet this can hardly lead to solid results or economic policy. This is not to say that TEE (or love) does not play an important role in our lives or that it does not have many valuable applications in society. Yet, recently many researchers have found, contrary to a high number of Danish local governments, that "*implementing the experience economy should not be a significant local economic development policy focus*" (Article, 2). However, it should also be recognized that a trial-and-error process is crucial for socioeconomic innovation. Thus, such a strong focus on TEE may have been (and still be) a mistake, but nobody knew how things would evolve back in 2003.

This brief chapter has explained a few of the main findings about TEE. My position is that while TEE is an interesting concept with many potential applications in many fields, it is not an effective tool for the vast majority of local and regional governments. This is partly because of its highly fuzzy definition. My position is not novel; much Danish research has recently come to similar conclusions. More details on TEE can be found in Article 2.

This finalizes Part II, the theoretical framework, of the thesis. This part has presented basic concepts and my position on entrepreneurship, local economic development and the experience economy. The next part (Part III) contains the articles or the main investigation of the thesis. After the presentation of the articles, the last part (Part IV) of the thesis will analyze the relationship between some ideas presented in the theoretical framework and some examples from the articles.

PART III – FOUR ARTICLES

This part contains the four articles included in this thesis. These are the correspondent chapters 6, 7, 8 and 9. There are some small differences in the formatting due to journal requirements. Below there is a table showing a basic synopsis of the articles.

Title	Authors	Research Question	Key Concepts	Methodology
The Lighting Festival of Frederikshavn	Freire- Gibb & Lorentzen	Freire- Gibb & strengthens the local entrepreneurial Lorentzen dynamics?	Local Economic Development (LED), Entrepreneurship broad sense, rural	Qualitative, case study
The Experience Economy (TEE)	Freire- Gibb	Why and how has TEE became so influential in LED policy in Denmark?	TEE, LED	Qualitative, discourse analysis
Urban vs. Rural Entrepreneurship	Freire- Gibb & Nielsen	How are urban and rural entrepreneurs different regarding creativity and the social network?	Entrepreneurship narrow sense, LED, urban/rural	Quantitative, multivariate analysis
Vallejo, California Gibb	Freire- Gibb	How can a struggling urban municipality improve its economic development?	LED, Entrepreneurship in Qualitative, a broad sense, Urban case study	Qualitative, case study

# **Article 1. Lighting Festival of Frederikshavn (Chapter 6)**

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# A Platform for Local Entrepreneurship. The Case of the Lighting Festival of Frederikshavn<sup>2</sup>

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Abstract: This article discusses the birth and evolution of a festival that has targeted the entrepreneurial dynamics in the provincial city of Frederikshavn (North Denmark). The festival was initiated in 2004 to confront a local economic crisis and has enjoyed support from a broad range of stakeholders. It started as a cultural project with initial scepticism by the local lighting firms; however, later they realised that supporting the festival was beneficial to them. The concept of temporary geographical proximity is applied to assess the festival's importance in escaping from the city's lock-in situation. Empirically, the article is based on interviews with a wide range of actors across the organizing network. The article offers some preliminary lessons about what such an event can contribute to local entrepreneurship.

#### 6.1 Introduction

This paper analyses a project which has targeted the economic development of the city of Frederikshavn. There are two notable characteristics of the city; first, it is a small city of 23,331 inhabitants in what is considered the periphery of Denmark and second, its employment has been based primarily on traditional technical-industrial knowledge as shipbuilding was the biggest employer of the twentieth century. It can be argued that the city has been immersed in a lock-in situation.

The municipality of Frederikshavn has created several projects to diversify the local economy. This article will discuss the formation and development of a "knowledge network" (Lorentzen, 2008) and how this network aims at improving the local economic development. The venture, called the Lighting

<sup>&</sup>lt;sup>2</sup> I am particular grateful to Birgitte Gregersen, Søren Kerndrup and Rikke Krogh for their assistance.

Festival<sup>3</sup> of Frederikshavn, was initiated in 2004. The importance of such festivals to local development is currently a topic of interest (Getz, Anderson and Larson, 2007; Karpińska-Krakowiak, 2009). For example, Carlsen, Anderson, Ali-Knight, Jaeger and Taylor (2010) state that, "it is evident from the literature that festivals have a key role to play in transforming destinations and organisations through economic, social and political processes" (ibid.). This is particularly the case in more rural areas because they, as compared with urban agglomerations, tend to see festivals as key to their economic development (O'Sullivan, Pickernell, Senyard and Keast, 2009). There is some evidence that cultural projects can be relatively successful in places distanced from large urban agglomerations, as recently found in England (Swords and Wray, 2010). The case of the Lighting Festival of Frederikshavn is significant because it has opened development possibilities for an important sector of the city.

The Lighting Festival was created in the context of a local economic crisis towards the end of the 1990s and sparked dramatic changes in its entrepreneurial zeitgeist (Therkildsen, Hansen and Lorentzen, 2009). There was strong commitment from a broad range of local stakeholders in the community who used the existing local knowledge to transform a cultural project into a business-oriented event for the local lighting cluster. There was strong commitment it from a broad range of local stakeholders in the community who used the existing local knowledge to transform a cultural project into a business-oriented event for the local lighting cluster. In other words, there has been an attempt to change or combine cultural policy (Wilks-Heeg and North, 2004) with entrepreneurship policy (Lundström and Stevenson, 2005). This article suggests that the creation of the festival and accompanying activities can be considered part of an entrepreneurial process. The Lighting Festival aimed to improve the dimensions of marketing, education and networks, and it has successfully done so for the community and businesses.

This article suggests that in the current economy and society, local governments and firms can take advantage of the concept of temporary geographical proximity (Torre, 2008). These activities promote the enrichment and extension of networks which can enhance the local entrepreneurial potential.

This article is divided in three parts. First, it frames the concept of

<sup>&</sup>lt;sup>3</sup> The original name of the Festival in Danish is *Lysfestival*. The first translation used was "Festival of Lights", however after the industry had a dominant role, they changed the translation to "Lighting Festival". While that was a subtle change for the locals, the English meaning was clearly oriented to industry interests.

entrepreneurship relevant to this case, including the role of intrapreneurship and non-pecuniary profit. Particular attention is paid to the concept of temporary geographical proximity, taking into consideration Frederikshavn's lock-in circumstances. It is shown that the economic and social actors of the city created the Lighting Festival as a conscious strategy to enhance the local economy and to support the lighting industry. The second part defines the methodology used and gives an historical perspective to the festival which focuses on the change of actors and networks over time. The gradual development of a complex network in which the lighting cluster may flourish is also described. Third, the article concludes with an analysis and assessment of the project and gives some suggestions to local governments in situations similar to those in Frederikshavn.

#### 6.2 Entrepreneurship and Local Development

In recent years, the literature has pointed out the importance of entrepreneurship to local economies (Shane and Venktaraman, 2000; Glaeser, Rosenthal and Strange, 2010), and the subject of entrepreneurship and economic development has been widely scrutinized since Schumpeter's theory of innovation and entrepreneurship (Lundvall, Johnson, Andersen and Dalum, 2002). Using literature from Schumpeter and others, the following paragraphs will attempt to frame the entrepreneurship process relevant to this case study.

According to Schumpeter (1942), the entrepreneurial process is "the fundamental engine that sets and keeps the capitalist engine in motion" when creating new goods, inventing new methods of production, creating new business models and localizing new markets (Schumpeter, 1942: 83). Although entrepreneurship is related to economic development, the entrepreneur may not be primarily motivated by pecuniary profit. This idea is well accepted in the popular concept of social entrepreneurship (Leadbeater, 1997). This phenomenon was explained by Schumpeter (1934) when he said that entrepreneurial motivation is about the "joy of creating" or "the will of conquering" rather than accumulating personal wealth (Schumpeter, 1934: 93). Furthermore, he also pointed out that "innovation is (...) not any more embodied typically in new firms, but goes on, within the big units now existing within companies]" (Schumpeter, 1928: 70). Today this process is also known as intrapreneurship (Pinchot, 1985). Additionally, intrapreneurs can be found in all types of sectors, including the public sector (Kearney, Hisrich and Roche, 2008).

To understand Frederikshavn's entrepreneurial environment, the role of intrapreneurs is highly relevant. Studies have shown that while Denmark has a relatively low entrepreneurial rate among developed countries, it has the highest level of intrapreneurship in the world, after Hong Kong (Hancock, 2004). During the local crisis, the festival was developed as part of the innovative strategies for revitalizing the local municipality and involved both local entrepreneurs and intrapreneurs from the public and private sectors.

#### 6.3 Lock-in and Ways to Escape it

The lock-in aspects of path dependence are often related to technological, organizational and institutional stagnation or rigidity. In other words, this concept implies that because of historical decisions, local entrepreneurship can have difficulties innovating. Many studies have shown that old industries can limit the economic progress of new industries. In their seminal paper on the subject, Martin and Sunley (2006) explain how in Glasgow in the 1970's heavy industry and shipbuilding restrained the establishment of other economic sectors. Researchers observed that the economy was trapped in a situation of lock-in and that once the shipyards were gone, a whole new frontier opened for local entrepreneurship.

Government support prolonged the existence of shipyards all across Europe, and for a long period of time, prevented the search for alternative economic activities. This "arsenal of subsidies and tax-relief measures [was] typically deployed by state and municipal authorities in an effort to attract new industrial investments, often without proper scrutiny of the total social costs" (Scott, 1998). Hassink (2005) referring to the Rostock area in Germany, pointed out that subsidies to the shipbuilding industry have also influenced a regional lockin.

Martin and Sunley (2006), expanding on the literature, have suggested several ways for regions to escape lock-in. They can be summarized as follows: a) indigenous creation, b) diversification of local industries and organizations, c) importation of industry from elsewhere. Of particular interest to the present analysis are points a) and b). Other contributions have expanded on these primary arguments and suggest that this escape from lock-in can be conceptualized as learning which can be defined as continuous technological, organizational and institutional change. These theories address this issue in terms of "learning regions" (Florida, 1995), "learning cities" (Larsen, 1999) and "learning clusters" (Hassink, 2005). Also, the strand of the innovation systems

has paid particular attention to the concepts of learning (Lundvall and Johnson, 1994). All of these studies suggest that groups of cooperating actors may embark on joint-innovation projects that have wider implications for the competitiveness of the local economy.

These studies are relevant for understanding the process behind learning and entrepreneurship; however, the vast majority of these innovation studies "are based on empirical evidence from metropolitan areas and urban agglomerations" (Fløysand and Jakobsen, 2008). It is not evident that the experience of large cities can be transferred to small or provincial cities which are "completely different organisms" (Jacobs, 1961: 22). The Lighting Festival is an example of how local actors became embedded in a learning process in a small and peripheral city.

One factor which has attracted special attention in the learning literature is the role of proximity among the cooperating actors. Proximity has been discussed in much detail (Lagendijk and Oinas, 2005; Boschma, 2005; Lagendijk and Lorentzen, 2007) and deals with shared geographic, social and cognitive characteristics, which enable actors to understand each other well enough to cooperate successfully on innovation. In relation to learning processes taking place over time, one particularly relevant aspect of proximity is 'temporary geographical proximity'. For example, Bathelt and Schuldt (2008) studied temporary geographic proximity in the lighting industry during Frankfurt's Lighting Fair. They found that these regular events, held every two years, enhanced the process of learning for the actors involved. And even though they only came together for a short period of time, the current ICT allowed them to collaborate more easily. The concept of temporary proximity helps describe what happens in the Lighting Fair of Frederikshavn.

The peripheral geographical position of Frederikshavn limits its innovation and entrepreneurial dynamics since spatial proximity is highly important to accessing knowledge spillovers (Jaffe, 1986). Its geographical position contributes to its lock-in since it is far away from important sources of innovation. Therefore, the temporary geographical proximity of otherwise distant actors holds the potential of overcoming some of the consequences of peripherality. The next section will discuss the potential of a festival as a strategy for local economic development.

#### 6.4 Festivals as Local Economic Development

Scott (2006) has examined the entrepreneurial dynamics of the cultural

economy. Recently, Scott (2010) has described the evolution of a cultural economy in the English Lake District, including food fairs and music festivals. Paiola (2008) discusses research on the relationship between economy and culture, pointing out that "in most cases those studies fail to take into account the impact of cultural activities on the birth and development or relations among local and external cultural and non-cultural actors". He also sheds light on the activities of local networks. Paiola explains that literature does not often discuss "inter-organizational relations" which are crucial in the local context, or "local entrepreneurs, who, animated by the goal of the development of their entire community, act as community entrepreneurs or animateurs - social entrepreneurs" (ibid.). A similar type of entrepreneurial network within festivals in rural areas has been observed by various researchers (O'Sullivan, Pickernell, Senyard and Keast, 2009).

Specifically referring to festivals, "local authorities use [them] to help achieve a diverse range of economic and social objectives" (Wood, 2005). Getz et al. (1997) and O'Sullivan et al. (2009) quote several studies containing different results. Some point out that festivals are positive for the local economy while others acknowledge that effects can be negative.

Referring back to Martin and Sunley, points a) indigenous creation and b) diversification of local industries both relate to entrepreneurial dynamics. It should, however, be taken into consideration that local entrepreneurship policy has very limited options (Lundström and Stevenson, 2005; Hart, 2003). Furthermore, there are few entrepreneurship policy suggestions applicable to rural areas. Some proposals include providing entrepreneurship advice, attracting tourism, developing rich networks both public and private and helping local products stand out. These four policy initiatives are discussed in detail by Julien (2007) who also proposes that a festival may be helpful in a number of ways in small peripheral cities. He explains that the impact of festivals "can extend far beyond the economic repercussions of tourist inflows, if they help create a sense of belonging and pride among local residents, thus fostering the sharing of local resources and local purchases, and even helping keep much needed workers in the area instead of migration to the cities" (ibid.: 246). In these ways, a festival may help improve local business environments. Also, from a proximity perspective, a festival may unite different social and economic actors in a joint endeavour.

Harvey (1989), referring to American and European cities, argued that festivals lose large sums of money while barely creating any wealth for their communities. He summed up the process by saying, "The circus succeeds even

if the bread is lacking" (ibid.). The following sections argue that the Lighting Festival in Frederikshavn is much more than a 'circus'. In the analysis that follows we will look at a) how the network around the festival is organized, b) who is involved, c) how long they cooperate and d) the outcomes of the organization of the festival and its subsequent activities.

#### 6.5 The Case of Frederikshavn

Frederikshavn is the major town of the northern most municipality in Denmark. It is 60 kilometres from Aalborg, the capital of the region. Historically, it has been a fishing village, but nowadays it provides services such as education, elderly care and banking among others. The economy of Frederikshavn has been characterized by two main features—shipbuilding and tourism. The local shipbuilding industry was the biggest employer during the twentieth century and, as with all European shipyards, they have been tremendously affected by superior Asian competition. A decade ago the shipyards either closed or were transformed into repairing firms or specialized providers.

Tourism in Frederikshavn and the whole region of North Denmark has also decreased. The reasons for this include the end of tax-free trade on ferries from Norway and Sweden, the opening of the bridge connecting the Copenhagen region to southern Sweden, the entrance of low-cost airlines and new consumption habits of Scandinavians, among other things (Enevold, 2008).

Faced with these hardships, the city has had to search for an alternative economic base by embarking on more entrepreneurial and diverse economic strategies. Local development specialists have talked about the "transformation of Frederikshavn [through] many innovative projects which have contributed to redefining the identity and atmosphere of the city" (Lorentzen, 2009). They have also highlighted the "changes in mentality and identity of Frederikshavn" (Therkildsen, Hansen and Lorentzen, 2009). New projects include a Caribbean-looking palm beach which is a highly popular tourist attraction and an energy project that attempts to make Frederikshavn, by 2015, "the first medium-sized city in the world to rely exclusively on renewable energy resources" (Danish Ministry, 2007).

A major factor behind the development of a Lighting Festival in Frederikshavn was the collocation of two important firms related to the lighting industry. One of them acted more in the national sphere and the other one internationally. In 2004, the latter opened a second factory in Frederikshavn, investing 23,5

million Euro (Automatik, 2004). The lights of this company have been used in the area around the Eiffel Tower and at the inauguration of the 2008 Beijing Olympics, among many other places. The collocation of their factories is complemented by several smaller companies of the lighting sector that offer lighting products and services. Some of them are spin-offs from the large plants. The direct gross employment from the lighting industry represents a few hundred people in the municipality. The local government considers it a lighting cluster, and local policy makers have paid much attention to it.

## 6.6 Methodology

The research was designed to cover the development of the festival from its inception to the present. The empirical study of the Lighting Festival in Frederikshavn is based on primary and secondary sources.

Over 30 different official reports and articles produced from 2004 to 2009 have been examined. Some of the texts have been published or are available on-line, others are not. Also, over 25 persons involved in the Festival and the Light Visions Innovation Centre (LVIC<sup>4</sup>) were interviewed. The majority of the interviewees were targeted because of their different positions, others were found through snowball sampling.

Interviewees came from several local government institutions including municipal planners (2), teachers from the technical school (2), the Business Council of Frederikshavn (in Denmark this is like a Chamber of Commerce) (2), public utility companies (2), small entrepreneurs (2), visiting light designers from London and Tokyo (2), employees at LVIC (2), artists (3) and

<sup>&</sup>lt;sup>4</sup> The idea of an innovation centre emerged from the organizers of the first festival, and in 2006, it was established (see www.lightvisions.dk). The goal was to enhance the lighting cluster. Members from the lighting factories and the public agencies were on the board of directors. Also individuals from smaller companies related to the lighting industry, as well as public employees, artists, technicians and other technical educators joined the LVIC. The technical school planned to provide professional lighting education to potential students. LVIC was envisioned as the coordinating entity of the Lighting Festival, along with other activities. However, a more ambitious festival consumed more time than initially planned. The leadership from the local Business Council, besides fostering cooperation, coordinated the application for EU funding, obtaining roughly 600 000 Euros. This grant gave the LVIC a stronger organisation by allowing them to hire staff. In mid-2009, LVIC found out that the organisation had not been able to secure public funding. This setback from public funding has combined with the global economic crisis in which the private firms have also announced economic cutbacks. Therefore the future of LVIC is unknown.

others such as an executive of a large firm, an involved engineering professor, lighting consultants and ordinary citizens (8). Twelve in-depth interviews with key individuals were carried out. Whenever possible, these interviews were digitally recorded. Supplementary material was received by email. The main purpose of examining the reports and conducting the interviews was to understand the organization of the festival and the motivation behind its development.

Furthermore, the authors participated in several of the 2008 festival activities. The majority of the material was collected between October 2008 and September 2009, and follow-up was done at several times in 2010.

#### 6.7 The Lighting Festival

The following sections are based on the above mentioned interviews and analyse the role of and the relationships between the actors who worked as entrepreneurs and intrapreneurs to create the festival and LVIC. The section also deals with the history of the festival, its form and content and its partial success. Frederikshavn's selection as the Danish Cultural City in 2004 was the catalyst for initiation of the bi-annual Lighting Festival. Representatives of Frederikshavn's public, private and educational sectors launched the first Lighting Festival that year. Successful editions followed in 2006 and 2008. However, the 2010 edition has been postponed until autumn 2011.

The original idea for the Lighting Festival came from two city planners, and it quickly found support among public entities. Some capable teachers from the local technical school also engaged in the venture from the beginning with the aim of bringing together the worlds of technical-design and architecture. Individuals from the public utilities company and the local Business Council also played crucial roles. These agencies fostered the initiative of a joint venture that combined the business, educational and cultural communities and provided the premises and a workforce for the Lighting Festival and LVIC. In the beginning, however, the private firms were somewhat sceptical. Nonetheless, one of the lighting companies participated in the 2004 festival by lighting up one of the six projects on display. A new partnership was born. (See Table 1 for more details on the different actors and the development of their roles.)

Originally, the concept of the festival was for it to be an open-cultural event that would provide opportunities for the local technical centre to implement some course work. One of the organizers commented that, because of an element of

surprise, more and more people came every night; by the end of the festival, attendance had totalled 30,000. With media coverage and industry attention, the lighting companies realized that participating could be highly beneficial to them. Also, after the first festival, the key organizers behind the project learned more about Lighting Festivals by visiting one in the city of Allingsås, Sweden. The festival in Allingsås, held every year since 1999, has its lighting set up by outsiders, namely an organization called ELDA (European Lighting Designer's Association, currently called PLDA). With the Swedish experience in mind and insistence from the industry, the organizing board decided to make an agreement with ELDA to set up the lighting for the 2006 festival in Frederikshavn.

Consequently, in 2006, ELDA controlled the organization of the festival. Thanks to its global network, this organization was able to hire six renowned international designers. There were many interesting projects to admire and tours were offered to visitors to view the illuminations. Apart from the illuminations, an education lighting camp was organized for technical and architectural students and teachers. This became a forum for state-of-the-art lighting instruction by top international specialists. Unfortunately for the organizers, the 2006 festival was overshadowed by a conference held by former U.S. President Bill Clinton in Frederikshavn on nearly the same dates (Lorentzen, 2009).

The private sector actors and some technical educators were pleased with the international collaboration at the 2006 festival. However, this new collaboration represented a departure from the original ideas and caused frustration for local teachers. After learning from ELDA, the local stakeholders decided to rely on their own resources in the future and created LVIC. This centre stems from the Lighting Festival and is most likely its most important achievement.

In 2008 the third festival was organized by the local LVIC and expectations were high. However, the organization suffered some setbacks. There were divergent ideas on the direction of the festival, and the organizing was complicated by the unexpected death of the Chairman of LVIC in early 2008. New leadership was established only half a year before the festival, and things were done on a tight schedule.

Following the 2006 conference, in 2008 LVIC organized a conference with some sponsorship by well-known international and Danish lighting firms. Keynote speakers presented to roughly 100 participants (down from 175 in 2006). The street projects were more business oriented (using permanent white

lighting instead of colourful effects), which translated into a duller experience for the citizens. In a non-published report, the LVIC admitted they needed to offer a better show "in order to have popular and political support". While in 2004 it could be described a cultural spectacle, in 2008 it was more of a business project with less public appeal. However, the stakeholders realised that public appeal would be indispensable in the future.

At this point, the LVIC became a stable network. While they had decided to organise a festival in 2010, the current economic crisis and stretched public and private budgets were such that the festival has been postponed until autumn 2011. According to Carlsen et al. (2010) such discontinuity is not unusual for festivals.

Reflecting on the 2008 Lighting Festival, it was not as much a spectacle as a competent technical education camp and a professional conference. Nevertheless, the citizens enjoyed a festival. The downtown stores stayed open late, various bands played on the streets and special artistic fairs were set up to take advantage of the lighting theme. Thus, the project comprises education, lighting business promotion and entertainment and art. The entertainment and art components are both important for citizens' satisfaction and sense of belonging (Florida, 2003; Marling, Jensen and Kiib, 2008), and investing in technical education "may do more to promote small firms than virtually any other type of policies" (Brusco, 1989). Furthermore, knowledge sharing and innovation takes place as lighting users –architects, designers and producers at the national and international levels—are brought together. Last but not least, the festival contributes to the reputations of firms and of the city which is of utmost importance to the competitiveness of both. The next section will further analyse the effects of the lighting festival

Table 3 (below) compiles the characteristics of the three festivals held to date. It describes the evolution of the project.

\_\_\_\_\_

**Table 4 Evolution of the Festival in selected areas** 

		2004	2006	2008
Basics	Theme	Cultural (Technical/Des ign and Architecture)	Professional festival	Business orientation
	Experience for citizens	High, Surprise	High	Low
	Type of lighting (no. street projects)	Colours (6)	Colours (6)	White (8)
	Organizer	locals	ELDA	LVIC
Entrepreneurial fertilization	Education Lighting Camp	Education traineeship	Recognized international designers as teachers	Education traineeship
	International Conference and Fair		High expectations not fulfilled (175 participants)	Good quality (100 participants)
Main actors role	Local Tech. School	Set up by a few teachers	Some teachers did not want to participate	Organizers of Light Camp (reconciliation?)
	Frederikshavn Business Council	Medium	High	High
	Lighting Producers	Low	Medium	High
	Local government	High	Medium	Low

# 6.8 Effects of the Lighting Festival

In a publication covering the second Lighting Festival in 2006, Frederikshavn's Mayor wondered, "How then is it possible to generate such enthusiasm and visibility in Frederikshavn – a city which, just a few years ago, was almost synonymous with unemployment and lack of clear identity?" He then answered

himself by saying: "Taking unconventional approaches leads to the creation of something special. When we work together, across all kinds of boundaries, we can achieve things that we could never accomplish alone" (Light Visions, 2007).

The Lighting Festival of Frederikshavn is not only a festival; it could as well have been named the Lighting *Education* Conference or the Lighting *Fair* of Frederikshavn. Each one would place a special stress on education or business promotion. The festival focuses on improving the local social and economic networks enhancing knowledge and promoting local economic development. The festival includes first, innovative light projects, second, an educational technical-design camp for students, and third, an international conference. This paper suggests that these components, especially the international conference due to its ability to create temporary geographical proximity, can be positive for the economic development of Frederikshavn.

The festival initiated by the local government has been beneficial to the lighting sector in several ways. First, the firms could extend and strengthen their networks. Second, they could test prototypes of new products on buildings and showcase them to potential users; and third, young people (as potential employees) received specialized education (occasionally from international specialists or from regional Aalborg University professors). Moreover, by participating in the festival, employees were motivated by seeing their products in use on municipality landmarks. Furthermore, other private companies such as banks saw their buildings promoted. Overall, a significant outcome in the private sector was its change in the business mentality to a more "local community development" approach (Snell, 1988). The public also benefited from the educational activities and stronger local networks. Tourism may also have been stimulated by the festivals, which may have had a positive impact on the local economy. Tourism revenues from festival and cultural events have been explored in detail by Jones and Munday (2004). See right column in the table in the next page.

The LVIC has served as a meeting place for the private companies. It has also facilitated the collaboration between the public and business actors, especially in education. However, its main project, the Lighting Festival, has also experienced problems and tensions. As shown in Table 1, the private actors have played an increasingly important role while the local government's role has declined. Also, local stakeholders such as the technical educators have been temporarily marginalized.

Table 5 Some benefits of the Lighting Festival to the local private and public sectors

	Private	Public
Marketing	Business owners promote their buildings.	Increased tourism
	Lighting firms showcase products	City branding and vibrant city environment
Education	Companies educate potential employees	Increased social and human capital
Networks	Extension (temporary cluster)	Strengthens local networks

To sum up, the birth and evolution of a network involving different actors has been described. Some actors attempted to unite the technical and lighting-design worlds in order to create a lively cultural atmosphere for the Frederikshavn community, and others aimed to strengthen local networks. For the lighting industry, the idea was not so much about strengthening local networks across the value chain but about gaining a wider geographical scope at national and international levels.

#### 6.9 Conclusions

Frederikshavn with its specific historical and geographical characteristics experienced decreased tourism and loss of traditional industry. Because of this, public officials felt pressure to launch innovative and diverse initiatives. One such initiative was the Lighting Festival. It has been argued here that the Lighting Festival has evolved into a platform that influences competitiveness and local entrepreneurship (see above tables 4 and 5). An interesting effect was that lighting firms learned that a local cultural event could be regarded as a strategic asset. The Lighting Festival has a) strengthened local socio-economic networks, b) extended business networks through temporary geographical proximity, c) promoted local products and services and d) improved technical education. These changes can be seen as enhancing entrepreneurial dynamics and local economic development potential. Furthermore, there are two other positive aspects that resulted from the project: namely, improved quality of place and city branding.

As seen in Table 4, actors from the public and private sectors were able to come together. However, it is also shown that the actors involved in the networks are not conflict free. There are continually changing relationships of participation

and influence. During the process of incremental innovation, key actors evolve. The festival has fostered a learning process that could contribute to indigenous business creation and the upgrading of local industries. This could allow them to effectively escape from their lock-in situation and trigger local economic development. In all, the divergences of the public and private sector were united around a common set of activities that delivered a project that may have benefited all parties.

Many cities in Western countries are in a lock-in situation. Academics have documented this and proposed ways to confront lock-in, but unfortunately, the literature has not been extensive for small or provincial cities. This paper has offered an example from a small city in the Danish periphery. It is premature to judge the ultimate accomplishment of the Lighting Festival; however, overall, it could prove to be positive in the long run. The project was created in order to confront a local economic crisis (due to the decay of shipyards and tourism). It will be interesting to see if this project will be relevant in tackling the effects of the present global economic crisis.

The festival has brought the local lighting sector the needed proximity in the form of 'temporary geographical proximity'. This has improved learning processes and opened innovation possibilities in the local lighting sector including private companies and the local technical school. Customized versions of this project, by taking into consideration local historical and geographical characteristics, should be appealing to peripheral areas interested in diverse forms of entrepreneurship.

# **Article 2. The Experience Economy in Danish LED (Chapter 7)**

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# The Rise and Fall of the Concept of The Experience Economy in the Local Economic Development of Denmark<sup>5</sup>

Abstract: This article discusses the evolution of the concept of 'The Experience Economy' in the Danish local economic policy. The term is rarely known worldwide, however it has become quite popular among the Danes and other Scandinavian. Its origins come from the American business-marketing field in the late 1990s, while in Denmark it evolved as a multifaceted idea with notable effects for economic development at the local level. The concept is related to the cultural or creative economy, but in the Danish case it became more diffuse. This article does not intend to be a critique of these two lines, neither to tourist attractions, which are also linked to the experience economy. However, it criticizes the implementation of an unorthodox idea to local economic development, even though it may have useful principles to other disciplines. This article reflects the line of recent research which has questioned its application in local economic development. Local governments have supported this strategy because of the national government's key role. Also, academics and consultants contributed to the process. The article also investigates the reasons Denmark had for developing the concept of the experience economy in Danish local planning and development.

#### 7.1 Introduction

This article explores the evolution and impact of the concept of 'The Experience Economy' (TEE) in Danish local economic policy. TEE is something that has become quite popular in Scandinavia, and especially in Denmark. The concept is related to the 'the cultural economy' (Soja, 1999) or 'the creative economy' (Florida, 2002). The intention of this article is not to critique either of these concepts or that of tourist attraction expenditures, which can also be related to TEE. However, it does question the implementation of an unorthodox idea to

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Regional and Local Economic Development (LED) for planning and policy making and points out the nearly complete absence of uncritical academic research until recently.

'The Experience Economy' became popular when Pine and Gilmore (1999) published a book with that name. These American business consultants argued that economy and society had developed "from the ancient agrarian economy, to the industrial economy, to the latter service economy and that the current economy is shifting to the experience economy" (Pine and Gilmore, 1999). This idea was born in the business strategy literature; however, it evolved within different disciplines. Two American marketing consultants, without ever having intended to, have dramatically affected an entire nation.

During the last few years, some Danish research has focused on measuring and finding useful lessons from TEE (E.g.: Lund, Nielsen, Goldschmidt, and Martinsen, 2005; Jantzen and Jensen, 2005; Hjorth and Kostera, 2007; Lorentzen, 2007, 2009; Marling, Jensen and Kiib, 2008; Lorenzen, Kristensen, Skov and Strandgaard, 2008; Sundbo and Darmer, 2008; Sørensen and Sundbo, 2008). These authors, among many others, found positive features of TEE and potential benefits for economic development across Denmark. Since 2003, the concept of TEE has become quite popular in Denmark due to the path dependency of the previously mentioned research as well as unique socioeconomic and linguistic reasons, which will be discussed later in this article. Of equal or greater importance, however, was the government's support of TEE in 2003, in what will be referred to 'the trigger report'. The term of TEE is widely known among Danish citizens because of its popularization by the media.

TEE has constructive applications to the fields of marketing, tourism, architecture, information communication technology (ICT) and design, as a plethora of research has shown. For example, at Aalborg University alone there were up to "14 research groups and a total of 112 academic members" (author's translation) working with aspects related to TEE (Excite, n.d.). However, in the field of planning and LED it is imperative to acknowledge the research advances which are raising scepticism about the concept. While many local and regional governments have created LED strategies based on TEE in Scandinavia, Denmark stands out. Caspersen (2009) in a comprehensive study of Danish Municipality Plans found that approximately 1/3 of all Danish municipalities have formulated strategies based on TEE and/or tourism. When similar strategies are put in place across neighbouring municipalities, on many occasions, zero-sum game effects occur. Yet this type of competition between

Danish municipalities is not uncommon (Snell, 1988). Furthermore, in the case of local strategies based on TEE, there are noticeable problems with evaluation. Bille (2010a), when referring to the latest situation in much of the Scandinavian local economic planning, posits that "it does not make any sense trying to measure the experience economy".

Despite the methodological limitations of trying to measure TEE, after several years of much of the academic research praising TEE to different degrees, recently a more sceptical view has emerged. Most now believe that, with few exceptions, implementing the experience economy should not be a significant LED policy focus. For example, after exhaustive research covering all Danish regions, Copenhagen researchers noted that "the experience economy as a lever to obtain future prosperity may be a very fragile strategy for the majority of cities and municipalities outside the main growth centres and classic tourist destinations" (Smidt-Jensen, Skytt and Winther, 2009). Aalborg University economic geographers have done extensive work in North Denmark and TEE, and recently concluded that the "experience economy does not represent any high road to development" (Lorentzen, 2010). From Roskilde University, academics published a paper which "does severely question the limits of the [creative class/experience economy theses] application as a development tool" (Sørensen, Fuglsang and Sundbo, 2010)<sup>6</sup>.

All in all, the current academic research is sceptical of using TEE as an effective tool for economic development. The first research question in this article is: Why and how has TEE became so influential in LED policy in Denmark? And, second: What can be learned from this process? The research for this article is based on a literature review together with qualitative material and active participation. When analyzing how the term TEE ascended, this article uses some traits similar to "discourse analysis" or "discourse theory" (Richardson, 2002). Most of the material collected for this article comes from studying the case of TEE and LED since early 2008 and includes over 30 interviews with academics, civil servants and other key informants actively involved in the study or promotion of TEE in Denmark. Some quantitative data is also presented and discussed.

The paper is divided into the following sections. Section 2 defines the concept of TEE as understood by most Danes. Section 3 explains how the concept of

<sup>6</sup> Another strong critique of TEE strategy has come from the architect Lasse Andersson in his Ph.D. thesis from Aalborg University, which strongly questioned the substantial local expenditures on "prestige lighthouses" and the "experience economy [projects] that only survive as long as the hardworking public servants feed them money and push them forward."

TEE has evolved in the academic world and pays special attention to the degree it has impacted Danish academics, even though the rise and demise of concepts in academia is widely acknowledged. Section 4 is the core of the paper and overviews how the concept surpassed classrooms and journals and affected LED policy in Denmark. Section 5 argues how and why this could happen in Denmark. The article finishes with some conclusions.

### 7.2 Definition of The Experience Economy

The concept of TEE is little known worldwide, with only a small community of business consultants and academic researchers familiar with the term. Not all of them have a favourable opinion of the term, and some have criticized it for being a non-original contribution (Caru and Cova, 2003). The term and concept is very heterogeneous. Somewhat similar concepts exist within the 'cultural economy' and 'creative economy'. TEE includes most of the ideas of the former term and a few of the latter. These American concepts have mostly focused on large metropolitan areas. However, in the case of Denmark, TEE has been adapted to a scattered geography with a large number of provincial towns. In the European sphere, practitioners and researchers in the field of LED have also had an increasing interest in creative cities and cultural clusters (Cooke and Lazzeretti, 2008). All of these trends have influenced the Danish version of TEE. This will be discussed in more detail in section 5.

Generally speaking, TEE can broadly be described as the field related to leisure activities, that is, generally when people are not working. This is driven by expenditures made on entertainment or a "memorable experience" (Pine and Gilmore, 1999: 99). There are an unlimited amount of applicable possibilities field, but a few that can be included are: performing arts (Hjorth and Kostera, 2007), sport, tourism, ICT-based experiences (Sundbo and Darmer, 2008), as well as religious activities or the pornographic industry (Bille, 2010a). Because TEE can be applied to almost everything what Birch (2008:141) predicted has happened: "policies run the risks of getting as blurred as the definitions". This paper will highlight some examples of this problem.

Evidently, it is easier to look at things retrospectively. Today, the narrative used to promote the implementation of TEE is clearer to see, and it has been possible to find structural limitations of TEE, starting with questionable methodology and statistical 'evidence' from the founders of the term (Pine and Gilmore, 1999, p.14). Such problems were inherited by the researchers in the field until it has eventually become patent that any attempt to measure TEE can not avoid

serious biases or inaccuracies, hence cancelling evaluation possibilities. In the case of Denmark, there are also other problems when promoting TEE, which include: geographical inequality (tourism and cultural activity continues to agglomerate in the province of Copenhagen the capital), high instability due to seasonality and economic cycles, nearly total dependence on public support, and the creation of a dysfunctional relationship between the concepts of TEE and the 'creative class', among other factors. These issues will be discussed in more detail later.

Planning the offering of experiences to citizens it is not novel. The ancient Mesopotamia, Roman Empire, or medieval cities, all have examples of the authorities making amenities and recreation available. Machiavelli also advised city-state leaders "to keep the people occupied with festivals and spectacles" (Machiavelli, 1513 [2009]: 91). The scope of this paper, nonetheless, starts in 1999 when the term TEE was created and popularized by Pine and Gilmore. The next two sections analyze the evolution of TEE in Denmark, the epicentre of a peculiar process.

#### 7.3 'The Experience Economy' in Danish Research and Society

In other European countries or regions<sup>7</sup>, TEE has been influential but not as much so as in Denmark. The following three subsections discuss the range of research on TEE throughout the world. The first section presents a study on the number of worldwide publications over time and across disciplines. The second section briefly gives an overview of the number of research groups in Denmark, and the third section shows the popularity of TEE in the Danish media.

## 7.3.1 Number of Publications across Disciplines

In order to better assess TEE's influence on the academic research, the programme Google Scholar has been used. This bibliographic software has accuracy limitations just as any other academic database does<sup>8</sup>. The following data is according to Scholar.

<sup>7</sup> The United Kingdom, The Netherlands, Finland and Sweden have also carried out significant research on the TEE concept. The British have mostly focused on tourism. The Dutch have broadened the concept to the fields of business literature and culture. Sweden has pursued a similar route as their neighbors the Danes, using it primarily in the fields of planning and economic development. Finland has applied a mixed approach.

<sup>8</sup> It has been checked that there is not a geographical bias of the software as it has been retrieved with analogous results in Berkeley, California and Aalborg, Denmark.

Since the introduction of the term 'the experience economy' in the late 1990s, it has been widely discussed. There are around 3500 articles or books referencing "the experience economy" of Pine and Gilmore. The term rapidly and steadily increased its popularity every year in the academic world for a complete decade (1998-2008). In 2009 only a slight increase was found, and in 2010 it was comparatively less referenced in publications. Based on the first months of 2011, it is estimated that the decline will continue. Decreased interest in discussing how people spend their resources on 'memorable experiences' could be explained by the global economic crisis, which began unfolding in 2008. This is normal as the base of TEE is the ability of people to lavishly spend money. It is important to keep in mind that these figures do not show the degree of to which the reference is positive or negative towards TEE. (See figure below)

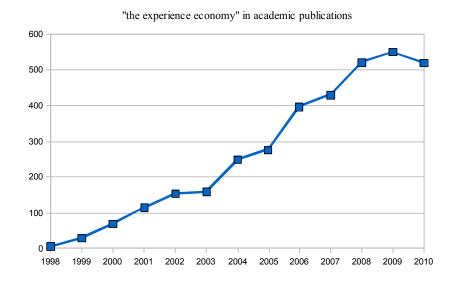


Figure 3. "the experience economy" quoted in academic publications. Data source: Google Scholar. Chart by author

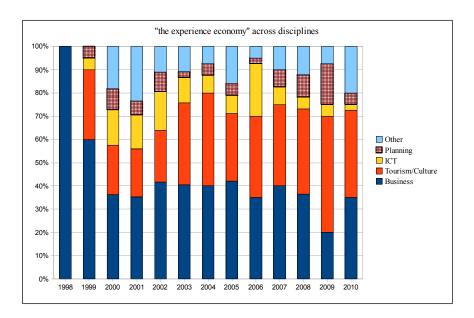
Concerning dissemination across subjects, most of the literature is related to the field of Business, Administration and Economics<sup>9</sup>. This represents almost 50% of all publications. Next, approximately 40% of the research is related to the rest of the Social Sciences, Arts and Humanities. Finally, 10% is related to the Engineering and Computer subjects, and an insignificant amount can be attributed to the Natural Sciences.

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<sup>9</sup> This classification is provided by Scholar. Note that the software categorizes "Business, Finance and Economics" separated from the Social Sciences.

It is possible to create a more specific disaggregation of the disciplines by looking at the title, abstract, topic of the journal, and/or the department affiliation of the publishing authors. This has been done in a sample of the top (most referenced) 40 publications according to Google Scholar by year. This exercise has required the analysis of nearly 400 papers that reference "the experience economy". By doing so, six categories are proposed based on the main topic of the articles, giving an estimation of the most relevant research carried out.

The following fields are listed in order of highest to lowest publication rate: 1) Business which is equally distributed between marketing and management, 2) Tourism and culture, which includes leisure activities, 3) Information and communication technologies, 4) Planning (particularly on LED), and 5) Other, such as society, architecture, design, health care, etcetera. Overall, this study shows the changes in each category over time. Generally speaking, it illustrates how the term started in the business literature and has comparatively lost importance in that field. Since 2004, publications in tourism and culture have become practically equal to the rate of business related publications.



**Figure 4. "the experience economy" quoted across disciplines over time.** Primary data source: Google Scholar. Chart and categories by author

The most important discipline for this article is the one related to planning, which in this specific categorization, deals with LED. Until 2006, the field of planning had a modest share of TEE related publications, around 5%, yet 2006

was a turning point for the discipline. By 2009, research on TEE had a strong influence in planning, partly due to the publication of the special issue on TEE in the journal of European Planning Studies in June 2009.

This research also extracts the geographical location of where the research was done based on the authors' affiliation. By doing so, 7 regions can be demarcated: a) USA, b) UK, c) Canada, Australia and New Zealand, d) Denmark, e) Finland, Sweden and Norway, f) the rest of the EU (mainly Netherlands, Austria, Germany), and g) the rest of the world (mostly Asian countries, Switzerland, South Africa, Israel, etc.).

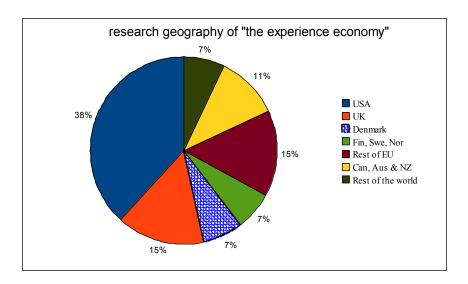


Figure 5 "the experience economy" as quoted by country/region (1998-2010) Primary data source: Google Scholar. Chart and categories by author

Disaggregated data shows that, only surpassed by the USA and UK, small Denmark has an extremely significant role in TEE discussion worldwide. In recent years, US researcher's have stepped back in comparison to others, while the rest of the English speaking countries (UK, Canada, Australia, NZ) have remained constant in their share of publications. The rest of the European nations' interest peaked in 2006, yet in Denmark, TEE has continually increased its position in rate of publication over time. Other Scandinavian countries have had irregular publications related to TEE.

Further analysis of the database (not shown on charts), clearly points out that Denmark is leading the discussion on TEE in relation to planning and LED.

Danish researchers have examined many different areas of TEE, but it is within planning especially when linked to LED which has seen a significant increment in publications. The next section discusses the number of researchers and research groups in Denmark dedicated to TEE.

## 7.3.2 Research Groups in Denmark

It is feasible to locate everyone who has published on the topic, yet this provides only a handful of research since unpublished work is untraceable. However, the fact is that, hundreds of academics, Ph.D. candidates and other students have devoted substantial time exploring TEE issues without publishing. Every Danish university has researched aspects of TEE. Also, many research centres have studied the topic. Key institutions in Denmark at the university level are as follows:

1) Aalborg—particularly in the areas of architecture, communication and planning. Ten other groups have researched it to a lesser extent. 2) Copenhagen Business School (CBS)—various areas but mostly business. 3) Roskilde—particularly in the areas of communication and business. 4) University of Copenhagen—various areas. Besides these four centres, much research has been done in other academic centres<sup>10</sup>. In the case of funding for TEE research, it predominately comes from public sources (from national funding and the European Union<sup>11</sup>), but a very small percentage of the funding has come from the private sector. For example, CBS received a 6,2 million DKK grant from a beer company in 2006.

Regarding TEE studies, collaboration between the different research groups is quite limited, but there have been several conferences and meetings on the topic. These were an important part of the catalytic movement for the promotion and capacity building of TEE. Some of the networks extend to the European level. For example, a research network sponsored by the Regional Studies

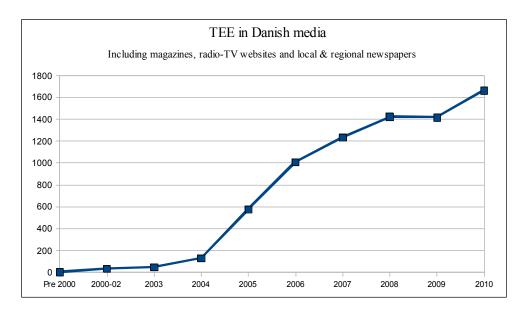
<sup>10</sup> Several of these institutions even have the "experience" term in their names. When recently questioning one employee about this, she replied that everything started in 2005 and that "the name came out of a brainstorming session when the term experience economy wasn't a buzzword". These new centres responsible for promoting TEE, have received well over 1 hundred million DKK for their activities all across Denmark. Due to space constraints this can not be detailed.

<sup>11</sup> Much of the money has been directed by Vækstfora (Growth Forums). These are public organizations in each Danish region formed by actors from the public and private sectors. Their purpose is regional development.

Association (2010) focuses on "the role of place, spatial narratives and identity in the leisure, culture and experience economy and planning". This group was created by Danish academics and is preparing the third annual workshop for autumn 2011.

# 7.3.3 'The Experience Economy' in Danish Media

Television and radio have also played an important role in popularizing the concept of TEE in Danish society. Regarding newspapers, magazines, and the websites of radio and TV, the powerful digital archive of Infomedia.dk shows the genesis of the concept of TEE in 2000 as being a book review of Pine and Gilmore's book. In 2003, the concept took off when many articles commented on the government's 'trigger report'. References to the term in the media increased until 2008 (See chart below). TEE or "Experience Economy" (without using "The") was referenced 1664 times in 2010. In other words, only in the written media, the term is referenced nearly 5 times a day.



**Figure 6 Presence of TEE in Danish media**Data source: Infomedia.dk - Chart by author

The early press coverage of TEE, regardless of its political orientation, was decidedly positive. Some examples include asking for more subsidies to promote TEE (Hansen, 2003) or defining TEE as "a goldmine for Denmark" (Ørskov, 2005). Only recently have references to TEE from journalists become somewhat sceptical. As with the academic research, an analysis of the positive or negative tone of the publications is not within the scope of this article.

Having the new concept accepted by society and supported by the government likely motivated many researchers and consultants to focus on it. Many times in academia, researchers reorient their work in order to fit a new technical word which improves their possibilities of attracting public interest and, more importantly, public and private funding.

To sum up, there has been a rise and decline in interest for TEE among academics worldwide as well as the Danish media. The next section is related to LED and discusses documents, background reports and local development strategies which have affected local economic policy, and eventually, Danish cities and towns.

#### 7.4 'The Experience Economy' in Economic Policy in Denmark

Months after the publication of "The Experience Economy" (Pine and Gilmore, 1999) came the first reports from public agencies in Copenhagen trying to asses the implications of the "new experience economy" (Wonderful Copenhagen, 2000). However, a more powerful influence came from the national government level. In 2003, the Ministry of Trade and Industry together with the Ministry of Culture jointly published: "Denmark in the Cultural and Experience Economy" (Government, 2003). With the justification that other countries were spending money on culture and other 'experience' related fields, they announced that the government was going to promote TEE in several area including: museums, sports, design, architecture, and cultural-business projects. This "trigger report" motivated economic policy makers at the national level (Birch, 2008). In a 'bandwagon effect', various Danish Regions, although usually in confrontation with the national government, followed suit. The government of the Capital Region of Copenhagen hired a consultancy company, who turned to external support from academics, to publish the report "Experience Economy in the Copenhagen Capital Region" (Rambøll Management, 2005). Subsequently other regions and municipalities followed their lead.

# 7.4.1 The Case of North Denmark Region and Frederikshavn

Cases from the North Denmark Region (also known as North Jutland Region), with roughly 0,6 million inhabitants, will be presented in this section. The Region, the farthest from the Danish capital is considered to be in the Danish periphery. The North Denmark Region (2006) also published a version of 'the trigger report', with the adapted title: "Culture and Experience Economy in the

North Denmark Region". While the original 'trigger report' was audacious enough from an economic point of view, it was not as bold as the report made by the consultants hired for the Region, which included statements like "The experience economy is gaining increasing importance for growth and employment in the region" or "Everything indicates a pressing need for a special effort within North Denmark in order to keep up with development" (author's translation) (ibid).

However, one should not believe that the North Denmark Region was alone. The 11 municipalities of the region have TEE as a driver of growth (Lorentzen, 2010). North Denmark's approach, including its capital Aalborg, may have been influenced by the popular belief that the region lacks leisure activities in comparison to the metropolitan (and more populated) areas of Copenhagen and Aarhus. In fact, a study of 1006 firms in North Denmark, stated that the first priority of the regional government should be on TEE/tourism (46%), followed by high technology (32%) and education (25%) among several other policy interventions (Christensen, 2006). In all, regional policy makers seem to have been influenced by the national government and consultants and also by the voice of business and the people. TEE has been clearly viewed in the Danish periphery, a lagging economy when compared to the core of the nation, as a potential LED strategy to not stay behind.

By 2008, when the economic crisis began unfolding, many provincial cities had already openly embraced the experience economy. The remarkable transformation of the city of Frederikshavn has been held up as a paradigm for the local strategy based on TEE (Lorentzen, 2007). The local government believed it was crucial for the city's economic development to support TEE strategy. In fact, out of the four pillars of their current business-economic strategy one of them is TEE (Frederikshavn Municipality, 2008). That said, it should be acknowledged that even though there are many municipalities implementing aspects of TEE, the case of Frederikshavn in the Danish planning context could be categorized as an 'extreme case' (Flyvbjerg, 2001). This line of research has been chosen to obtain more information from because it activates "more actors and more basic mechanisms in the situation studied" (ibid: 78). The next subsection will refer to this process.

The implementation of a blurry concept like TEE has led to some trouble for Frederikshavn. For example, in 2004 a Lighting Festival was created, which was to be held biannually. It had predominantly successful editions in 2006 and 2008 (Freire-Gibb and Lorenzen, forthcoming). However, arguably the Festival and its interplay with the concept of TEE was not clear, wherefore creating

policy confusion and becoming biased towards pure-economic benefits. Besides having lost its vision, the 2010 edition has been postponed because of local budget restraints and a new political leadership more sceptical of TEE<sup>12</sup>. The next section will discuss the major findings from interviews with some of the principal players in North Denmark.

#### 7.4.2. Evolution of the Discourse

The introduction of TEE in Danish local planning was initiated by the government's 2003 'trigger report'. While this report specifically mentions that "the Government does not intend to introduce a new round of subsidies" (Government, 2003), a torrent of funding later occurred. More importantly, the popular government (which has been in power since 2001) legitimized TEE's quest with the report.

By 2007, the discourse of TEE was already dominated by certain actors. One active player promoting aspects of TEE in Frederikshavn was frustrated that 'his branch' of TEE was not supported enough by the local government. He complained, "...it is quite strange to think about now that we have invested 65 million [DKK] in Arena Nord and 42 million in the Music House and so on..." (Hansen, Kristensen, Krogh, Pedersen and Sigvardsen., 2007, my translation). The TEE discourse, however, was not challenged until the global economic crisis stalled industrial productions and took a heavy toll on unemployment. An official from North Denmark in a personal interview said ironically: "I see the experiences, but where is the economy?!".

While the built capacity of the discourse seems to be collapsing, even in summer 2010, there are many municipality officials who still have great faith in their understanding of TEE. For example, one of them explained: "There is an economic crisis now, but it will pass. People will realize that the experience economy is the way forward (...) The agricultural and industrial economies are gone!".

In order to further analyze the discourse, in autumn 2010 a survey was carried out among Danish local planners and academics involved in TEE. One question asked if they felt that academics, as well as local planners, had been overly optimistic concerning TEE. A strong tendency was found in which academics believed that planners had been more overly optimistic than academics and vice

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<sup>12</sup> In the 2009 local elections, the Mayor was replaced after 12 years leaving a troubled local budget.

versa, planners believed academics had been more optimistic. Although further exploration is needed, the dissidence between the optimism of the two groups may be something that researchers should consider when evaluating their role within this topic.

To sum up, the strategy of TEE has been established as an important LED strategy for many Danish regions and municipalities. The main actor affecting the local governments has been the national government. The Regions also share partial responsibility for the promotion of TEE<sup>13</sup>. Furthermore, consultants established a fruitful relationship with the national and local governments. While the consultants assisted in helping develop TEE policy, academics (in a few occasions hired as consultants) supported its implementation and only recently have begun publishing material questioning it. The process, although imbedded with controversy, still has the support of many who believe it to be beneficial. The way the concept of TEE has evolved in Denmark is related to its environment which will be analyzed in the following section.

#### 7.5 Denmark, the Fertile Ecosystem

Researchers have pointed out three trends that have characterized the growth of TEE in Denmark. These are, first, a general increase in income; second, technological development; and third, increasing globalization (Bille and Lorenzen, 2008). Furthermore, Bille (2010a) discussed three approaches and theories which have affected how Scandinavia understands TEE. Besides Pine and Gilmore's book, she also points to the 'creative industries' in UK and the 'creative class' as the origins of TEE.

One of the branches of the creative industries can be linked to the culture economy, which in Denmark is frequently ascribed to art and music. In an interview, a project manager of an important organization explained that "the music industry and other creative industries are very much into the concept of the experience economy". A small minority felt uncomfortable with the government's categorization, but the majority of the factions, which could be regarded as a 'lobby', have contributed to the expansion of TEE in Denmark.

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<sup>13</sup> The other actors promoting TEE come from the private sector, which plays a crucial role in the different governments. According to key academics, some companies have had an agenda to influence academics through funding.

The creative class has become widely popular in Denmark. Interestingly, many key players have put the concept of the creative class and TEE together in their minds. A municipality project manager put it bluntly: "We were interested in attracting people with higher education, a creative class. And in order to do so (...) our focus was the experience economy, for people who already live here and people who wanted to settle down in Frederikshavn" (Hansen et al, 2007). This thinking may have been influenced by reports by consultants who also made a strong connection between the creative class and TEE (E.g. North Denmark Region, 2006). All in all, academics clearly report that "in a Danish context, this 'creative class' discourse is currently transferred to a small-town context and infiltrated with another influential discourse – that of the 'experience economy'" (Sorensen, Fulgson and Sundo, 2010).

The amalgamation of the experience economy and the creative economy in most of minds in Denmark is understandable, due to the similarity of two English-origin names as well as the timing of their popularization and relationship to LED. As usual, most of the policy makers are not able to read extensive literature on the concept. If they would have, they would have discovered the dysfunctional relationship between the creative economy and Danish concept of TEE<sup>14</sup>. Recent research shows that the Danish creative class enjoys some cultural offerings such as libraries, contemporary concerts and art exhibitions, among others, therefore making certain cultural offerings beneficial (Bille, 2010b). However, the rest of the research (see references in the introduction), clearly suggests that attempting to create LED based on offering experiences in general is counterproductive for the vast majority of the Danish cities and towns.

The rise of TEE in Denmark can not be understood without linguistic considerations that have made Danish society more inclined to accept Pine and Gilmore's term. For example, the term and idea of offering "experiences" to visitors was already accepted by local governments in the early 1990s (Frederikshavn Municipality's plan, 1993). When the term "Experience Economy" became popular a decade later, it created the perfect circumstances for justifying production of experiences for economic purposes. Also, for northern European languages like Danish the word 'experience' has a more

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<sup>14</sup> Danish local governments decided to invest heavily in performing acts to purposely attract the creative class. Ironically, this is the opposite of what the work of Florida (2002) in the U.S. has suggested. He argued: "cities across the country have spent countless billions of dollars" on [questionable] things such as "professional sport teams, museums, the symphony, opera, ballet and other things [in order] to lure people and firms" (ibid. p.259). However, in Denmark, such activities are considered to be the core of TEE.

specific meaning than in other languages like English<sup>15</sup>.

Furthermore, the turn of the century may also have had a psychological factor for people to be more open to the idea of changing times and wonder about the future. It is no coincidence that many concepts conveying the idea of a "new economy" became popular around that time. Pine and Gilmore were fortunate, or smart enough, to publish their book in 1999.

Probably the most important factor in the rise of TEE is that the idea was shaped right after a prolonged economic boom, arising "more or less – in the dot-com boom of the 1990s and the so-called "new economy" in America" (Strömberg and Kjær, 2010). In the case of Denmark, it came after an unusually strong period of growth period that lasted 15 years and was considered a "golden age" (Andersen and Winther, 2010). This economic strength enabled public and private funding for researchers and practitioners. Similarly, with the arrival of the economic crisis scepticism towards it has increased. As the 'trigger report' clearly noted: "a number of factors suggest that the culture and experience economy grows at a faster rate than general growth in boom periods and less in periods of recession" (Government, 2003). Therefore, local policy makers who would like to support TEE would need to acknowledge that they can afford having a more unstable tax base due to TEE's cyclical nature. Almost certainly, when the economic cycle improves in the future, there will once again be champions defending TEE or another mutant concept.

Summing up, TEE was able to grow in Denmark because of several socioeconomic and cultural factors in its Scandinavian setting and solid public support. The government may have also rushed the concept and created confusion among local and regional governments by mingling TEE with aspects of the creative industries and creative class among other notions. While TEE was able to evolve through solid economic growth in Denmark, the current economic crisis seems to have wounded its narrative.

#### 7.6. Conclusions

Since 2003, the concept of TEE has become very popular in the Danish society. This article has presented some preliminary conditions for answering the

<sup>15</sup> For example, in the sentence "This old lady is wise because of her life experience" (result of learning, *erfaring* in Danish), it is different than "That concert was a great experience!" (an exciting adventure or event, *oplevelse* in Danish). The latter is the root of TEE or *Oplevelsesøkonomien* 

research question: Why and how has TEE became so influential in LED policy in Denmark?

The idea of TEE would not have penetrated Denmark so deeply without the role played by the national government, which influenced regional governments, media, academia, and eventually the realms of LED policy making. This article points out the crucial milestone of the 2003 'trigger report', which was made under the auspice of the national government. Historical, linguistic and socioeconomic factors also explain the rise of the concept. In defence of the 'trigger report', it does not seem to have been the Ministers' intentions to have so many small governments become so highly involved with TEE.

Further research on the issues discussed in this article, or similar meta-analysis could include bibliometric investigation using statistical or other social network analysis tools. In order to better understand the determinant reasons for the evolution of the concepts it might be useful to research some socio-anthropological and behavioral characteristics of the population in question, in this case the Danish one.

This article has overviewed the extent of publications influenced by TEE concept. It has shown how deeply it has reached Danish LED, not only in the research field, but in the economic policy and planning of dozens of cities. After several years of positive studies, several expert researchers have recently questioned, to various degrees, the application of TEE strategies for the LED policy in Denmark (Smidt-Jensen, Skytt and Winther, 2009; Andersson, 2009; Bille, 2010a; Lorentzen, 2010; Sørensen, Fuglsang and Sundbo, 2010). These critics combine qualitative and quantitative research within various definitions of TEE. Just as a prosperous economic period helped promote TEE, the recent economic crisis may have affected some decline in its popularity among scholars. Since LED policy is not the same as real LED, it will be interesting to see the future consequences of having heavy expenditures in 'experience' projects. However, the blurriness of the concept implies immense limitations to measurement and evaluation. That said, this article also attempts to answer the second research question: What can be learned from this process? While several authors have been referenced who have raised criticism of TEE as a LED strategy, it is not the focus of this article to be another one. The main objective of this article is to point out how academic research and local-regional policy making should be aware of promoting a concept uncritically. This is further explained in two points.

First, although nothing novel, municipalities should be careful when applying new LED strategies. This should be of special concern if solutions come in a

one-size-fits-all approach. One strategy may be helpful in the capital but not necessarily in provincial cities. Also, regional and local governments should take precautions if the policy initiatives emanate from a government with a different political agenda than the local citizens support (for example, conservative vs. social-democrat). Second, many problems might have been avoided if there would have been stronger collaboration between qualitative and quantitative research, not only from academia, but also from the governmental agencies which promoted TEE on the basis of economic development. Qualitative research is important and highly valuable in the advance of science, and many Danish social scientists have focused on stories, interviews, actors and networks related to TEE. Nevertheless, quantitative academic researchers have mostly been excluded or notably excluded themselves from this important LED debate. It is imperative that future discussions include collaboration between researchers using more diverse methodologies.

The Danish national and regional governments now share the responsibility of promoting TEE on the basis of economic development. Unfortunately, research has found it to be a less effective strategy for most local governments, and therefore, the government could support local governments to reorient their strategies. The paper has argued that TEE is a concept that can hardly be measured or evaluated. In other words, TEE is not an effective tool for local economic development or planning. Furthermore, this article has shown a case of local economic policy having uncritically implemented a concept. It is suggested that, for example, expenditures on cultural projects and investments in tourist facilities may be better understood if considered as such (cultural or tourism projects), instead of being categorized within a blurry concept such as TEE.

# Article 3. Entrepreneurship in Urban and Rural Areas (Chapter 8)

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# **Entrepreneurship within Urban and Rural Areas. Individual Creativity and Social Network** 16

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Abstract: The entrepreneurial dynamics of urban and rural areas are different, and this paper explores 'individual creativity' and social network factors in both places. The probabilities of becoming an entrepreneur and of surviving are analyzed. The results are based on longitudinal data combined with a questionnaire, utilizing responses from 1,108 entrepreneurs and 420 non-entrepreneurs. Creativity is only found to be relevant for start-up in urban areas, but it does not influence survival in any of the two areas. The social network matters, in particular in rural areas. By combining the person and the environment, common entrepreneurship beliefs can be questioned and entrepreneurship theory benefited.

#### 8.1 Introduction

Entrepreneurship has been recognized as fundamental to regional economic development, and it has been suggested that entrepreneurship policy should pay more attention to the various dimensions of different regions (Tamásy, 2006; Aoyama, 2009). Understanding who becomes entrepreneurs, and more importantly, successful entrepreneurs across different geographical settings is important to understand economic prosperity.

Most entrepreneurship studies have been carried out in urban areas in which entrepreneurship flourishes due to localization effects, urbanization effects and the 'creative class' argument (Glaeser, Rosenthal and Strange, 2010). The

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superiority of larger cities in producing advanced economies has been acknowledged since the time of the ancient Greeks (Plato [380 B.C.], 2005; Xenophon [IV Century B.C.], 1999) to the time of the Italian city-states (Botero, 1588). The higher economic performance of urban areas has been explained by a wide variety of theories ranging from the division of labour (Smith, 1776) to capital accumulation (Marx and Engels, 1848). Today, some researchers have put forward the thesis that, with a few exceptions, entrepreneurship is an urban phenomenon (Acs, Bosma, Sternberg, 2011). Unfortunately, the increasing interest in entrepreneurship in cities has left rural areas under-researched. The exploration of who becomes a (successful) entrepreneur can be categorized to some extent into studies of identity (e.g. characteristics/traits and values), knowledge (e.g. education and work experience) and network (e.g. strong and weak ties). This uses the three categories of entrepreneurial means introduced by Sarasvathy (2008): i.e. who they are, what they know, and whom they know. This article questions some of the common assumptions about urban and rural entrepreneurship and points out important

results.

There has been little research done comparing the individual traits of entrepreneurs in rural and urban areas, including non-entrepreneurs as control group. Exceptions include the areas of psychological traits (Babb and Babb, 1992), use of social networks (Bauernschuster, Falck and Heblich, 2008) and values related to entrepreneurship, to a much lesser extent (Smallbone, 2009). Such studies have produced conflicting evidence on entrepreneurial differences. Babb and Babb (1992) found no major differences in psychological traits between the urban and rural entrepreneurs, while Bauernschuster et al. (2008), as well as Smallbone (2009) suggested significant network and value differences. Thus far, the impact of geography on the individual characteristics of the entrepreneurs is unclear, as is whether or not such characteristics are present in non-entrepreneurs in urban and rural areas.

This article studies the role of individual creativity and social network for the probability of becoming an entrepreneur and surviving "the valley of death" (three years after start-up), respectively. The article does not go into the debates of: a) is creativity an inborn personal trait or a behaviour that can be learned and b) is social network a result of personal extroversion, networking behaviour or the success of their business. Shedding light on whether personal characteristics are only a latent capacity for (successful) entrepreneurs is relevant to entrepreneurship education and entrepreneurship policy.

Using a unique Danish dataset of 1,528 individuals, the present research utilizes four main groups in the analyses: first-time entrepreneurs in 2004 and non-entrepreneurs, in both urban and rural areas. The main results of this article show that there are a few significant differences between urban and rural entrepreneurs regarding individual creativity and social network. Both matter for entrepreneurship. While entrepreneurs in urban and rural locations may only differ slightly, some of these differences could be considered as caveats for further research in the field. Creative individuals have a higher probability of establishing a business if they live in an urban area, but not in a rural area.

This finding could strengthen arguments that indicate a relationship between creativity and larger cities (Florida, 2010; Glaeser, 2011). However, when looking at other indicators related to creativity, such as work motivation and risk willingness, the results support the thesis that more "creative" individuals tend to start businesses regardless of their geographic setting. The probability of failure is always higher in urban areas, and creativity indicators were not found to be important for business survival. Regarding social network indicators, frequent contact with more groups and encouragement from family and friends were found to be important for start-up in both urban and rural areas, but when it comes to survival, the social network is much more important in rural areas.

Why the entrepreneurial environment is different in urban and rural areas will be explained in the following section. Then the article is divided into four main parts. First, the concepts of individual creativity and social network in regards to entrepreneurship will be discussed since they are significant factors in explaining (successful) entrepreneurship. Second, urban and rural areas will be defined in the methodology. Third, an analysis of the results will follow, and the article finishes with conclusions

## 8.2 Entrepreneurship in Urban and Rural Areas

As introduced above, geographical location plays a significant role in explaining entrepreneurship. However, the location per se (e.g. choosing to be in an economic hub), can hardly be disentangled from people's presence. Today, empirical evidence suggests that even though such places have higher competition (Sorenson and Audia, 2000), human proximity (i.e. population density, population growth and population size) increases entrepreneurship rates (Reynolds, Storey and Westhead, 1994; Shane, 2003; Sternberg, 2009). A plethora of studies attempt to explain why the entrepreneurship environment differs in urban and rural areas. Geographical economics has expanded the

research on transportation costs and economies of scale to explain the better performance of urban centres even though entrepreneurs themselves were omitted (Krugman, 1991). Regarding the environment, research shows that rural entrepreneurs lack certain benefits related to "low density of population and therefore a low density of most markets, and greater distance to those markets as well as to information, labour, and most other resources" (Malecki, 2003, p.201). Also places with higher population density offer entrepreneurs (and potential ones) more "observation possibilities" before engaging in new projects (Shane, 2003).

Much research has explained the higher performance of entrepreneurship in cities by citing improved availability to externalities. These include two main research veins. The first, called the Marshall-Arrow-Romer externalities which focus on intra-industry knowledge flows or knowledge flows within the same industry.

The second, is the so-called Jacobs' externalities that explain how in cities small businesses (in particular) exchange knowledge flows across diverse industries (Sternberg, 2009). The higher education of entrepreneurs and their employees is a reason for higher urban entrepreneurial performance (Shane, 2003). Large universities tend to be in cities providing not only formal education but creating knowledge spillovers that entrepreneurs can benefit from (Saxenian, 1994; Cooke and Schienstock, 2000). The process of spillovers could also be linked to the necessity of face-to-face contact in certain kinds of activities (Jaffe, 1986). Innovation scholars also point out the importance of proximity in entrepreneurial dynamics due to the mode of innovation based on 'doing, using and interacting' (Jensen, Johnson, Lorezn and Lundvall, 2007). In a review of the literature, Glaeser, Rosenthal and Strange (2010) cite higher returns, greater supply of ideas, more resources, and differences in the local culture and policies as reasons why entrepreneurship is superior in urban areas. They sum up by saying: "entrepreneurship can be part of a virtuous cycle where entrepreneurial activity leads to the circumstances that foster further activity. Of course, the flip side of this conclusion is that the absence of entrepreneurship can lead to a vicious cycle." All in all, while the literature points out that the dynamics are very different in rural and urban areas when it comes to entrepreneurship, more empirical research on these dynamics is called for.

The next two sections will discuss the significance of individual creativity and social network, and their relationship to entrepreneurship. The personal traits approach in entrepreneurship has played a dominant role in this research, often including paper and pen measures of the most common traits: risk willingness,

tolerance of ambiguity, feelings about locus of control, need for achievement, desire for independence, and creativity or innovativeness (Parker, 2004; Cromie, 2000). However, empirical studies on personal traits have not obtained robust results, likely contributing to the change in focus to social network theory. This included looking at the benefits related to motivation and acquisition of resources (e.g. customers and suppliers, and capital and labour) (Parker, 2004; Brüderl and Preisendörfer, 1998; Aldrich and Zimmer, 1986). This article takes on the view that important contributions to the literature can be made by investigating the role of entrepreneurial means in different environments since few studies have tried to do so (Thornton, 1999; Hisrich and Drnovsek, 2002; Sarasvathy, 2004). The following section will suggest why individual creativity and social networks could differ in urban and rural settings.

## 8.3 Individual Creativity and Entrepreneurship

In the last decade, the narrative of creativity and entrepreneurship has been dominated by the theories of the 'creative class' (Florida, 2002). In general, Richard Florida, has done a remarkable job of emphasizing the importance of creativity for regional development. Even though critics of the 'creative class' are ad infinitum (Scott, 2006), the concept has many interesting notions for entrepreneurship (Boschma and Fritsch, 2009; McGranahan, Wojan and Lambert, 2010). However, it is important to keep in mind that the taxonomy of the creative class is not necessarily related to entrepreneurs and that the creative class argument is geared towards urban areas. Scott (2006), among many others, has also cited the importance of creativity in entrepreneurship as related to cultural production, and he also primarily focuses on large metropolitan areas. This article does not use the term of creativity popularized by Florida or Scott, but, as a personal characteristic, called individual creativity, of the people surveyed, as explained at the end of this section.

There is an abundance of research exploring the role of personal traits, values, and attitudes in the decision to become an entrepreneur and the likelihood of becoming a successful entrepreneur. Numerous traits such as risk willingness, tolerance of ambiguity, feelings about locus of control, need for achievement, desire for independence or autonomy, and creativity or innovativeness have been included in these studies (Parker, 2004; Cromie, 2000). Despite this, empirical studies trying to verify that entrepreneurs possess certain traits are ambiguous. Exceptions are Caird (1991) and Cromie and O'Donaghue (1992) who find that entrepreneurs are different from other groups regarding five of the most common traits in the literature including creativity.

Creativity or innovativeness is included based on the assumption that the entrepreneurs, as outlined in Cromie (2000), have to have the ability to recognize and realize new opportunities, look beyond conventional procedures, combine existing ideas and resources in different ways, and obtain experience through experimentation and trail and error. Furthermore, an entrepreneur is someone who thinks in non-conventional ways, challenges existing assumptions, and is flexible and adaptive regarding problem solving <sup>17</sup> (Cromie, 2000). Chen, Greene and Crick's (1998) empirical study of entrepreneurial selfefficacy (i.e. an individual's belief of his/her own capabilities regarding different entrepreneurial tasks) found that business founders scored higher than non-founders in regards to self-efficacy in innovation. Also, Koh (1996) finds innovativeness to be higher among entrepreneurially inclined students compared to those who are non-inclined. As for the differences between successful and unsuccessful entrepreneurs, Utsch and Rauch (2000) find that innovativeness is a mediator between achievement orientation and venture performance; innovativeness has a positive and significant effect on both profit and firm growth.

A major problem in empirical studies using the personal traits approach is the categorization and distinction between different traits (Cromie, 2000). For example, it is likely that individuals with a great need for independence also display a great need for achievement, creativity or innovativeness, and willingness to take risk because high independence allows these individuals to behave in accordance with these other traits. Indeed, Utsch and Rauch (2000) find innovativeness to be significantly correlated with all other included traits, except locus of control. Another indicator used to gauge an individual's creativity or innovativeness has been an individual's intrinsic (and extrinsic) motivation since intrinsic motivation results in high-quality learning and creativity (Ryan and Deci, 2000).

Intrinsically motivated individuals can act for the fun or the challenge of the endeavor while extrinsically motivated individuals act because of external prods, pressures, or rewards. Likewise, intrinsic and extrinsic work values are related; the former is related to the work tasks themselves (e.g. the importance of work strengthening skills and abilities) and the latter is not (e.g. the importance providing a high income) (Kalleberg, 1977). Hence, work motivation or values could serve as good proxies for creativity instead of trying to construct a direct measure of creativity.

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<sup>&</sup>lt;sup>17</sup> This is in accordance with (and likely because of) Schumpeters theory of the entrepreneur.

The field of individual creativity, in the sense put forward in this paper, has been examined, but strong statistical evidence has not been found. One possibility for this is because the environment was not controlled for in heterogeneous groups of individuals. This article investigates individual creativity and proxies for individual creativity for the likelihood of becoming an entrepreneur as well as becoming a successful entrepreneur in rural and urban areas.

More opportunities for entrepreneurship in urban areas, as outlined earlier, could result in creative individuals only being more likely to start-up in these areas. On the contrary, if also assuming more employee opportunities for creative individuals in urban areas (e.g. intrapreneurship), creative individuals could be less and more likely to start-up in urban and rural areas, respectively. As for survival after start-up, it is reasonable to assume that individual creativity is positively related to venture survival. Especially for entrepreneurs, it is important to deal with the uncertainty of the future by turning to effectual reasoning instead of causal reasoning (Sarasvathy, 2008). This involves being able to adapt the original business plan and the goal of business along the way as the entrepreneurial means can be used to create many different businesses. Hence, creative individuals are very likely to be better at superior effectual reasoning. However, it can be assumed that individual creativity will have a larger effect in urban areas as there is greater competition for new businesses.

In this article, two main indicators for creativity have been created: a) creativity or innovativeness as a personal characteristic and b) higher intrinsic motivation than extrinsic motivation. Furthermore, one indicator covering risk willingness and one indicator covering five other personal characteristics associated with entrepreneurship are created. The operationalization of these traits can be seen in Table 8 in the appendix. This section has discussed creativity as an alleged crucial factor for entrepreneurship. The next section discusses the second factor that is particularly studied in this article.

## 8.4 Social Network and Entrepreneurship

A critique of the individual's work values and personal traits (such as creativity) is that the decision to become or remain a (successful) entrepreneur can not be explained by looking solely at the individual (Granovetter, 1985; Aldrich and Zimmer, 1986). In other words, "Persons do not make decisions in a vacuum but rather consult and are subtly influenced by significant others in their

environments: family, friends, co-workers, employers, casual acquaintances, and so on." (Aldrich and Zimmer, 1986, p.6)

The benefits the entrepreneur can reap from a social network are often related to motivation and access to valuable resources like information, customers, suppliers, capital and labour (Parker, 2004; Brüderl and Preisendörfer, 1998; Aldrich and Zimmer, 1986). The motivation to become an entrepreneur, stay an entrepreneur, or become a successful entrepreneur is all assumed to be positively related to having (former) entrepreneurs in the family or among friends ("peers"). These individuals can provide access to the necessary resources, provide realistic insight into the values, abilities and skills associated with (successful) entrepreneurship, and provide "encouragement" given the many ups and downs entrepreneurship can lead to. Providing moral support, of course, is not dependent on these individuals having entrepreneurial experience. The importance of family and friends is empirically supported by Sanders and Nee (1996) who looks at immigrant self-employment status, Hanlon and Saunders (2007) who study key supporters in achieving business goals, and Brüderl and Preisendörfer (1998) who look at business survival and growth.

Furthermore, Nanda and Sørensen (2010) find that individuals are more likely to become entrepreneurs if their parents or former work colleagues have entrepreneurial experience while Davidsson and Honig (2003) find the likelihood of being a nascent entrepreneur higher for individuals with entrepreneurial parents, entrepreneurial friends or neighbours or if family and friends have encouraged entrepreneurship.

Ego-centric social network studies of entrepreneurial start-up and performance often divide network ties into strong ties and weak ties, depending on the degree of trust between the two persons (Dubini and Aldrich, 1991). Strong ties are often simplified to be spouse, parents, other relatives, and close friends while weak ties are business partners, (former) employers and co-workers, and other acquaintances (Brüderl and Preisendörfer, 1998). On the one hand, a social network mainly consisting of strong ties is efficient for obtaining resources given the high degree of trust. On the other hand such a network can be inefficient given the assumed low diversity and high density, i.e. the people share the same characteristics and contacts outside of the network. In addition to the nature of network ties, the size of the social network is the most common measure for an entrepreneur's potential opportunities (Burt, 2000). One empirical study that includes many network characteristics in explaining new venture growth (sales, profit, and employment) is Ostgaard and Birley (1996). They found that having colleagues/partners in the personal network positively

affected all performance measure while more profitable entrepreneurs were found to have a denser (less diverse) personal network. However, the personal network size and frequency of communication with the personal network was not found to influence venture performance.

Studies including social network characteristics other than size, the nature of a tie (strong or weak) and the network density demand a more qualitative approach and are, thus, less appropriate for quantitative analysis. Hence, many quantitative studies include simple indicators or proxies for social network, e.g. entrepreneurs among family/friends, marriage status and club/organization membership.

Concerning the different characteristics between urban and rural populations, the work of Granovetter and some of his followers offers some insights. Granovetter (1985) argued that more economic opportunities are created through weak ties. Researchers later posited significant differences in urban and rural areas claiming that individuals in rural areas depend more on their network for learning processes and individuals in less populated areas often have stronger ties (Benneworth, 2004) compared to individuals in urban areas who have weaker ties (Morris, Woodworth and Hiatt, 2006). These different network structures may affect the entrepreneurial dynamics in urban and rural areas. Bauernschuster et al. (2008) found increased club membership is related to self-employment but with a twist. Memberships are more important in peripheral areas as they lead to closer ties because of low population density.

To sum up, regarding the start-up decision and subsequent survival of a business, support from the social network is expected to be important in both urban and rural areas. According to Burt (2000), the social network is important for entrepreneurs because people compete for the same resources necessary for business start-up. However, where the social network effect is strongest could be ambiguous. On the one hand, the social network effect could be larger in rural areas as a consequence of the less supportive entrepreneurial environment. On the other hand, the effect could be larger in urban areas given the more competitive environment. The social network effect could be larger in rural areas as a consequence of the less supportive entrepreneurial environment. But, in another way, the effect could be larger in urban areas given the more competitive environment. The social network effect could be larger in rural areas as a consequence of the less supportive entrepreneurial environment. But, in another way, the effect could be larger in urban areas given the more competitive environment.

The network indicators used in this paper for analysis of entrepreneurial start-up and success in urban and rural areas are frequent use of weak ties, social network size and encouragement from family and friends to start-up. The operationalization of these indicators can be found in Table 8.

## 8.5 Methodology

This section contains four subsections dealing with: a) the sample of about 1,500 respondents, b) the specifications of the survey, c) the conditional variable: urban and rural areas? d) the independent variables: the person, firm and circumstances. Concerning the source of the data, the Integrated Database for Labour Market Research (IDA) contains longitudinal data on the entire Danish population and Danish firms from 1980 onward and each person can be connected to the firm they worked for in any specific year. Furthermore, the main founder behind every new business in Denmark from 1994 onward can be found in the entrepreneur register. IDA is used for the sampling of the questionnaire survey conducted in 2008 and, subsequently, to provide background information about the respondents from the 2008 questionnaire survey.

## 8.5.1 The sample: Entrepreneurs and Non-Entrepreneurs

The sampling for the survey is based on information from 2004 the latest year for which IDA was available at the time. In Table 1 (see below) the size of the population, sample and response population can be seen for the two strata used in this paper: first-time entrepreneurs in 2004 (the entrepreneurs) and non-entrepreneurs before and in 2004 between the ages of 15-66<sup>18</sup>. The entrepreneurs are defined by meeting the following criteria: starting an incorporated or unincorporated businesses with "real" activity as their main occupation in 2004. For the business to be "real" active in a given year, the work effort and/or the earnings (calculated from turnover) have to be above a certain industry specific level which for businesses started in the same year is set to half<sup>19</sup>

<sup>&</sup>lt;sup>18</sup> Two other strata were included in the survey but not in this study, experienced entrepreneurs in 2004 and former entrepreneurs in 2004.

<sup>&</sup>lt;sup>19</sup> Businesses from the primary sector (and the energy sector) are not included given the level of government intervention in these sectors.

Table 6 (in Thesis) Table 1 in Chapter: Population, sample, and response population.

	Number of persons in:							
Strata	Population	Sample	Respondents (rate)					
Entrepreneurs Non-entrepreneurs	$\substack{7,250 \\ 2,712,525}$	4,389 1,514	1,384 (32%) 606 (40%)					
Total	2,719,775	5,903	1,990 (34%)					

From Table 1 (above) it is evident that the entrepreneurs in 2004 are largely oversampled in the survey. The purpose of this paper is to investigate the different dynamics in urban and rural areas for a) the probability of becoming an entrepreneur and (2) the probability of surviving as an entrepreneur. Hence, the disproportionate stratified sampling on the dependent variable (entrepreneur versus non-entrepreneur) does not create a problem when applying logistic regression for analysis (Allison, 1999).

## 8.5.2 The Survey: Survival, Creativity and Network

The time-lag between the time of sampling (2004) and answering of the questionnaire (2008) as well as the limited time period covered by IDA (1980/1994-2004) makes it necessary to control for entrepreneurial status from the questionnaire. In the 2008 questionnaire, respondents were asked, a) If they are an entrepreneur in 2008, b) if they were not an entrepreneur in 2008 but were earlier, or c) if they are not an entrepreneur in 2008 and have never been one<sup>20</sup>. Together with the IDA information, the responses to these questions are used to create an indicator of survival from 2004 to 2008; hence surviving 'the valley of death' after which point the business survival curve flattens out. Other measures of entrepreneurial success was considered, e.g. difference in pre- and post-start-up earnings or growth in sales, profit, or employees, but for simplicity only survival was used. This decision was based on vast studies showing that entrepreneurs are often unable to achieve an income from entrepreneurship equal to or above the income of working in an established business (Dahl, Jensen and Nielsen, 2009; Blanchflower and Oswald, 1998); yet entrepreneurs are often more satisfied with their work than wage earners (Hundley, 2001; Blanchflower and Oswald, 1998). Hence, survival enables entrepreneurs to have high work satisfaction and is at the same time a prerequisite for growth.

<sup>&</sup>lt;sup>20</sup> 57 non-entrepreneurs were excluded because they could have been entrepreneurs before or after the time period covered by IDA.

From the questionnaire, creativity and network indicators are also created for all respondents. The construction of these indicators can be seen in Table 8. The individual creativity indicators used in this study encompass an individual creativity indicator as well as proxies such as intrinsic compared to extrinsic work motivation from the sociology literature, an aggregate measure of common entrepreneurial characteristics from the psychology literature, and a measure for the degree of risk willingness from the microeconomic literature. The social network indicators include the number of different groups with frequent contact, the social network size and encouragement from family and friends, respectively, for the start-up decision. Knowledge indicators are only included indirectly as age and education are part of the control variables in this study (see Table 8-10).

One problem of using survey data for quantitative analysis is missing values. In the case of non-response for a variable, the respondent is dropped in the regressions, which is problematic when including several variables (if the nonresponses for each variable are distributed among different respondents). This is not a problem in this study, but in order to have the same number of observations in the regressions models, the few missing values for each variable are imputed using regression imputation with gender, age, education, personal income and household wealth as explanatory variables; see (Levy and Lemeshow, 2008).

The number of imputed observations for each variable can be seen in Table 8. Only for the network size variable is the number of imputed observations high (13%), likely due to the complexity and sensitivity of the question.

#### 8.5.3 The Conditional Variable: Urban and Rural Area

The concept of urban and rural is intricate because both of them are social constructs (Anderson, 2000). Therefore, defining an urban area can be done as "a function of a) population size, b) space (land area), c) ratio of population to space (density of concentration) and, d) economic and social organisation." Weeks (2008, p.354). In the papers that have been referenced in this article, researchers use different methodologies and standards. Overall, the use of different measures for each country and region and for what constitutes rural and urban areas is recognized. As in many other studies, while a dichotomy between urban and rural places is proposed, a large scale of gray area exists. In this article the four functions proposed by Weeks are directly and indirectly taken into account

As mentioned above, the main challenge is defining the "gray areas". In the majority of comparative studies, researchers use a figure (e.g. 50,000 inhabitants) to separate rural and urban areas. If someone is an entrepreneur in an administrative unit with 50,000 inhabitants that person becomes an urban entrepreneur. However, if someone lives in a municipality with 49,999 inhabitants then he/she becomes a rural entrepreneur. While this approach is practical for statistical purposes, it can be somewhat biased. In order to better differentiate the rural and the urban areas, this paper uses a more conservative approach and creates a semi-urban area, shown in gray on the map. These semiurban areas are removed from this study. Such gray areas correspond to the third and fourth largest cities in Denmark, Odense and Aalborg, both of which had populations between 150,000 and 200,000 inhabitants in 2004. Following this conservative approach, the surrounding municipalities of within 20 kilometres (centre-to-centre) are included. There are only nine of the remaining municipalities that have over 50.000 inhabitants, and they are also categorized as semi-urban areas together with Odense and Aalborg. Therefore the definition of an urban inhabitant used in this paper is a person living in an area within commuting distance to the two significantly largest cities in Denmark: Copenhagen and Aarhus. In Denmark, a similar approach has been used by others such as Dahl and Sorenson (2009). Figure 1 portrays the data as it was in 2004, the first year of data collection. The map shows the 271 municipalities in Denmark and the 37 and 16 municipalities that are connected to the Copenhagen and Aarhus areas, respectively. These 'metropolitan' areas had 1,605,943 and 475,810 inhabitants, respectively.

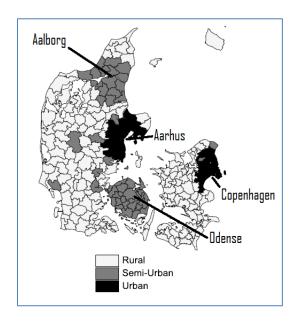


Figure 7 (in Thesis) Fig. 1: Map of categorization of Danish municipalities.

Denmark had a population of just below 5,5 million in 2004. There are around two million inhabitants living in both rural and the urban areas and around one million people living in the semi-urban area, or the "gray areas". That is, if an individual lives in an area of more than nearly 500,000 inhabitants, the person is considered urban. If an individual lives in an area of less than 50,000 people, the person is considered rural. The areas in the middle -those determined as being semi-urban- account for less than 20% of the total population and remain out of the study.

Table 2 (below) shows that out of the 1,108 entrepreneurs, 615 (56%) live in urban areas and 493 (44%) in rural areas. For the non-entrepreneurs these numbers are 220 and 200 in urban and rural areas, respectively. Table 3 shows the number of successful and unsuccessful entrepreneurs according to this definition. In urban areas, 351 out of 615 entrepreneurs become successful (57%) while 319 out of 493 rural entrepreneurs do (64%).

Table 7 (in Thesis) Table 2 in Chapter: The individuals used for the analysis

	Entrepreneurs	Non-entrepreneurs	Total
Urban Rural	615 493	220 200	835 693
Total	1,108	420	1,528
Excluded	276	129	405

Table 8 (in Thesis) Table 3 in Chapter: The entrepreneurs used for the analysis

	Successful	Unsuccessful	Total
Urban	351	264	615
Rural	319	174	493
Total	670	438	1,108
Excluded	157	119	276

## 8.5.4 Independent Variables: Person, Firm, and Circumstances.

Table 9 depicts the 12 categorical variables with frequency and percentage; and Table 10, includes the 8 continuous variables with frequency, mean, standard deviation and the lowest and highest value. Further descriptions of the main indicators are presented in T able 8. Table 9 shows personal demographics such as gender, age, foreign origin (non-Danish) and marital status. There are also

two indicators that assess the circumstances in the start-up year, 2004. These include whether or not the individual has moved between an urban and rural area in the 1980-2004 period, and whether the person has been unemployed at any time in 2003. Table 9 also shows measures such as intrinsic motivation and creativity and the encouragement of family and friends. The last two indicators only concern the entrepreneur's industry category and ownership type. Table 9 shows that the data for the four groups. Concerning the personal demographics chosen, these coincide with the extensive entrepreneurship research carried out by (Buss, Popovich and Gemmel, 1991; Westhead and Wright, 1999; Lee, Florida and Acs, 2004). Concerning moving across urban and rural areas, as is normal in European countries, the vast majority of people do not move (Weeks, 2008), and this has also been found for Danish entrepreneurs (Dahl and Sorenson, 2009). The measure of unemployment was mainly used to assure that urban and rural entrepreneurs were similar, which was confirmed. It is important to keep in mind that while rural unemployment in Denmark tends to be slightly higher, the average national unemployment rate in 2004 was as low as 5.8% of the total labour force. As in other Scandinavian countries and Japan, low unemployment is combined with a high national GDP per capita, which overall translates into entrepreneurship for opportunity, not necessity (Acs et al., 2004). As expected, a larger share of entrepreneurs are creative, compared to non-entrepreneurs. Also a larger share of urban entrepreneurs are creative compared to rural entrepreneurs and non-entrepreneurs in both areas.

Table 10 also presents the data on the four groups studied. This includes the education (years of education beyond elementary school), the personal income and household wealth in 2003. Also entrepreneurial traits and risk measures are comprised. Furthermore, social networks are included as an indicator for the number of different groups the individual has frequent contact with and as an indicator for the number of persons in the social network. The last variable, only for the entrepreneurs, measures the number of employers/employees in their businesses. Most of these indicators are natural logarithms.

Overall, Table 10 shows that urban populations have significantly higher education even though, both in urban and rural areas, entrepreneurs have slightly more education than non-entrepreneurs. Urban entrepreneurs are found to have the highest income. The high standard deviation implies urban inequality, which is quite acknowledged in the literature. Rural entrepreneurs and urban non-entrepreneurs have similar incomes, and rural non-entrepreneurs were found to have the lowest incomes of all. Concerning wealth, in general between urban and rural all differences are more pronounced. Taking into consideration the caveats of a high standard deviation, it seems that rural

entrepreneurs tend to have less wealth. Unsurprisingly, in regards to entrepreneurial traits, Table 10 shows entrepreneurs have a higher number of traits. It can also be noted that for both groups urban individuals tend to have a higher rate of entrepreneurial traits. Concerning the variable 'risk', it has a similar pattern as entrepreneurial traits.

To sum up, Table 9-10 give a picture of the main differences between entrepreneurs and non-entrepreneurs in urban and rural areas. This sample is consistent with most of the entrepreneurship literature in the field. Hence, the Danish population of entrepreneurs is in line with research in other countries. However, the aim of this research is to go further than a univariate analysis in order to learn more about the entrepreneurial dynamics in urban and rural areas from a multivariate analysis. The next section will discuss the main results of the research estimating the likelihood of becoming an entrepreneur and the likelihood of surviving as an entrepreneur, respectively.

#### 8.6 Results

This section will discuss the results of creativity (8.6.1), the social network (8.6.2), and will present a robustness check (8.6.3)

## 8.6.1 Creativity

The probit coefficients for the probability of being an entrepreneur can be seen in Table 4. Six different models are specified for the analysis. Apart from the control variables, Model 1 includes a dummy for urban area and all four indicators of individual creativity. Model 2-5 each include one of the four individual creativity indicators with the matching urban area interaction term. Finally, Model 6 includes all individual creativity indicators as well as all interaction term. Using these independent variables together with firm controls, the six models in Table 5 show the probit coefficients for the probability of surviving as an entrepreneur. Finally, Table 6 and Table 7 mirror the previous two tables except that the four creativity indicators are replaced with four indicators for social networks.

Table 9 (in Thesis) Table 4 in Chapter: Probit models for becoming an entrepreneur - Individual creativity.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Female	-0.602**	-0.681**	-0.652**	-0.693**	-0.618**	-0.600**
	(0.077)	(0.074)	(0.075)	(0.075)	(0.076)	(0.077)
31-40 age	0.311**	0.333**	0.305**	0.311**	0.332**	0.292**
41 50	(0.109)	(0.108)	(0.108)	(0.107)	(0.108)	(0.110)
41-50  age	0.120	0.168	0.111	0.124	0.157	0.105
<b>Ľ1</b>   omo	(0.116) $-0.163$	(0.115) $-0.173$	(0.116) $-0.182$	(0.115) - $0.234^{\dagger}$	(0.115) $-0.184$	(0.117) $-0.194$
51+ age	(0.136)	(0.134)	(0.134)	(0.134)	(0.133)	(0.137)
Foreign	$0.284^{\dagger}$	0.134) $0.222$	0.154) $0.255$	0.134) $0.217$	0.207	$0.290^{\dagger}$
Toleigh	(0.166)	(0.164)	(0.165)	(0.164)	(0.165)	(0.166)
Married	0.256**	0.249**	0.263**	0.273**	0.265**	0.274**
111011100	(0.082)	(0.081)	(0.081)	(0.081)	(0.080)	(0.082)
Education	0.002	0.024	0.008	0.017	0.019	0.002
	(0.017)	(0.016)	(0.016)	(0.016)	(0.016)	(0.017)
Income - ln	$0.037^{\dagger}$	0.040*	0.039*	$0.036^{\dagger}$	0.039*	$0.037^{\dagger}$
	(0.019)	(0.018)	(0.019)	(0.019)	(0.018)	(0.019)
Wealth - ln	-0.015*	-0.015*	-0.015*	-0.016*	-0.016*	-0.016*
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Unemployed	0.645**	0.614**	0.611**	0.599**	0.621**	0.645**
	(0.106)	(0.104)	(0.104)	(0.104)	(0.104)	(0.107)
Moved	0.097	0.133	0.100	0.140	0.131	0.105
	(0.098)	(0.097)	(0.098)	(0.097)	(0.097)	(0.100)
Urban	0.042	0.149	0.097	-0.119	0.113	0.105
	(0.078)	(0.136)	(0.125)	(0.102)	(0.086)	(0.163)
Intrinsic	0.289**	0.435**				0.400**
	(0.083)	(0.116)				(0.120)
Traits	0.144**		0.201**			0.207**
	(0.034)		(0.048)			(0.054)
Creativity	0.062			0.000		-0.265*
D. 1	(0.081)			(0.109)		(0.123)
Risk	0.516**				0.712**	0.642*
	(0.165)				(0.266)	(0.281)
$\mathbf{U} \times \mathbf{Intrinsic}$		-0.095				-0.208
		(0.160)				(0.168)
U x Traits			-0.026			-0.103
TT 6			(0.062)	0.44044		(0.069)
U x Creativity				0.449**		0.585**
II D:-1-				(0.147)	0.100	(0.164)
$U \times Risk$					-0.180 $(0.329)$	-0.177 $(0.343)$
	0.440 <sup>‡</sup>	0.040	0.000	0.055		
Constant	$-0.449^{\dagger}$ $(0.243)$	-0.348 $(0.245)$	-0.266 $(0.242)$	0.055 $(0.236)$	-0.131 $(0.234)$	$-0.478^{\dagger}$ $(0.255)$
D 1 D2		, ,	, ,		, ,	
Pseudo R <sup>2</sup> Log-likelihood	0.14	0.12	0.13	0.12	0.12	0.15
Observations	-770 1528	-789 1528	-782 $1528$	-790 1528	-792 1528	-763 1528
Observations	1528	1528	1020	1528	1528	1528

Note:  $^{**}$ ,  $^{*}$ , and  $^{\dagger}$  is significant at the 1%, 5%, and 10% level, respectively.

Initially, Model 1 of Table 4 shows that living in an urban area does not influence the probability of being an entrepreneur. The coefficients for the creativity indicators in Model 1 reveal that entrepreneurs have a higher probability of being motivated by intrinsic work values, have more of the commonly studied entrepreneurial traits and are more willing to take calculated risks. However, the direct measure of individual creativity is insignificant. Model 2-6 further reveal that the effect of intrinsic motivation, entrepreneurial traits and risk willingness on the probability of being an entrepreneur is no different in urban and rural areas (indicated by the insignificant interaction terms). However, Model 4 and 6 show that the direct measure of individual creativity significantly increases the probability of being an entrepreneur in urban areas. Meanwhile, creativity has no influence (Model 4) or a significantly negative influence (Model 6) in rural areas. Assessing this interaction effect graphically, Figure 2 and 3 show that the interaction effect is: a) significant for all probabilities of being an entrepreneur b) positive for all probabilities of being an entrepreneur and c) ranges from approximately 0.15 (low probabilities) to 0.05 (high probabilities). Overall, this finding shows creativity to be a latent capacity for entrepreneurship that is only utilized if the environment is supportive. Although the four indicators for creativity were found to be important for the probability of being an entrepreneur, none of these indicators were found to be important for the probability of survival in Table 5 when assessing significance from the probit coefficients or the interaction effect graphically. However, Model 1 reveals that living in an urban area has a significant negative influence on the probability of survival, which is assumed to reflect the higher competition in these areas.

#### 8.6.2 Social Network

Using the same approach as earlier, Model 1 of Table 6 again confirms that living in an urban area does not influence the probability of being an entrepreneur. Furthermore, Model 1 includes all four indicators for social network shows that start-up encouragement from family and friends has a large positive effect on the probability of being an entrepreneur while the size of the social network (number of persons) has a small negative effect. The latter result, however, is not significant when interaction terms are introduced (Model 3 and 6). Finally, frequent contact (approximately every week) to more individuals does not influence the probability of becoming an entrepreneur when all indicators are included in the same model (Model 1 and 6). However, it does have a small positive effect on Model 2; an effect that is no different in urban and rural areas. Hence, this finding supports the previous studies on the

importance of "moral support" on the decision to become an entrepreneur. This study further shows that the effect of encouragement is strong in both urban and rural areas. Only if a 10% level of significance is accepted, is the larger effect of family encouragement somewhat reduced (a graphical interpretation can be seen in Figure 4 and 5).

Turning to the probability of entrepreneurial survival, Model 1 confirms that living in an urban area decreases the probability of survival. However, encouragement is not only important for the start-up decision. All models including encouragement reveal that encouragement from family increases the probability of survival while encouragement from friends is found to be insignificant. However, when including interaction terms (Model 4 and 6), it becomes evident that the large positive effect of family encouragement is only present in rural areas. Moreover, frequent contact to more individuals has a positive influence on the probability of survival but only in rural areas (Model 2 and 6). Assessing the two interaction effects graphically, Figure 8 and 9 show that the interaction effect of family encouragement is: a) significant for entrepreneurs with a probability of survival less than 80%, b) negative for all probabilities of survival less than 80% and c) ranges from approximately -0.15 (mid probabilities) to -0.10 (high probabilities) percentage points. In the same way, Figure 6 and 7 show that the interaction effect of frequent contact is: a) significant for entrepreneurs with a probability of survival less than 80%, b) negative for all probabilities of survival less than 80% and c) ranges from approximately -0.09 (mid probabilities) to -0.06 (high and low probabilities) percentage points. Finally, social network size is found to have a negative effect on the probability of survival in Model 1, but, as before, the effect becomes insignificant when interaction effects (Model 3 and 6) are introduced. Overall, these findings support the literature on the positive role of a social network for successful entrepreneurship but mostly in rural areas

 $\begin{tabular}{ll} Table 10 (in Thesis) Table 5 in Chapter: Probit models for new firm survival - Individual identity. \end{tabular}$ 

<u> </u>	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Female	-0.218*	-0.243**	-0.233*	-0.237**	-0.232*	-0.216*
	(0.093)	(0.091)	(0.091)	(0.091)	(0.092)	(0.093)
31-40 age	0.158	0.159	0.146	0.153	0.156	0.156
	(0.115)	(0.115)	(0.115)	(0.115)	(0.115)	(0.115)
41-50 age	0.146	0.145	0.125	0.140	0.140	0.145
E1	(0.127)	(0.127)	(0.127)	(0.127)	(0.127)	(0.128)
51+ age	0.108	0.088	0.085	0.085	0.094	0.105
Foreign	(0.157) -0.078	(0.157) $-0.094$	(0.157) $-0.089$	(0.157) $-0.109$	(0.157) $-0.111$	(0.158) $-0.068$
roreign	(0.159)	(0.159)	(0.159)	(0.159)	(0.159)	(0.160)
Married	0.045	0.041	0.044	0.051	0.041	0.051
	(0.087)	(0.086)	(0.086)	(0.087)	(0.086)	(0.087)
Education	-0.005	-0.003	-0.006	0.001	-0.002	-0.005
	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Income - ln	-0.009	-0.010	-0.010	-0.008	-0.009	-0.009
	(0.021)	(0.020)	(0.020)	(0.020)	(0.020)	(0.021)
Wealth - ln	0.019**	0.019**	0.019**	0.018**	0.018**	0.019**
TT 1 1	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Unemployed	-0.031	-0.036	-0.036	-0.041	-0.033	-0.033
3.6 1	(0.097)	(0.097)	(0.097)	(0.097)	(0.097)	(0.097)
Moved	-0.164 <sup>†</sup>	-0.154	-0.158	-0.140	-0.153	-0.159
	(0.100)	(0.099)	(0.100)	(0.099)	(0.099)	(0.100)
Urban	-0.204*	-0.201	$-0.252^{\dagger}$	-0.264*	$-0.172^{\dagger}$	-0.249
	(0.085)	(0.168)	(0.145)	(0.118)	(0.094)	(0.196)
Intrinsic	$0.176^{\dagger}$	0.194				0.191
	(0.097)	(0.139)				(0.143)
Traits	$0.060^{\dagger}$		0.043			0.053
	(0.035)		(0.049)			(0.054)
Creativity	-0.123			-0.131		-0.200
	(0.087)			(0.122)		(0.132)
Risk	0.064				0.182	0.152
	(0.112)				(0.179)	(0.180)
$U \times Intrinsic$		-0.007 $(0.189)$				-0.027
U x Traits		(0.189)	0.022			$(0.194) \\ 0.012$
O X ITAILS			(0.063)			(0.012)
U x Creativity			(0.003)	0.135		0.139
O A Cicativity				(0.161)		(0.173)
U x Risk				(0.101)	-0.166	-0.154
					(0.228)	(0.231)
Employees - ln	0.126	0.121	0.139	0.142	0.138	0.127
	(0.125)	(0.125)	(0.125)	(0.124)	(0.125)	(0.126)
Ownership personal	-0.182 <sup>†</sup>	$-0.195^{\dagger}$	-0.181 <sup>†</sup>	-0.203 <sup>†</sup>	-0.200 <sup>†</sup>	$-0.183^{\dagger}$
	(0.108)	(0.107)	(0.107)	(0.107)	(0.107)	(0.108)
Industry control	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.282	0.361	0.433	$0.539^{\dagger}$	0.471	0.302
	(0.319)	(0.323)	(0.318)	(0.312)	(0.310)	(0.331)
Pseudo $\mathbb{R}^2$	0.06	0.06	0.06	0.06	0.06	0.06
Log-likelihood	-698	-700	-701	-702	-702	-697
				1108	1108	1108

Note: \*\*, \*, and  $^{\dagger}$  is significant at the 1%, 5%, and 10% level, respectively.

Table 11 (in Thesis) Table 6: Probit models for becoming an entrepreneur - Social network.

Female		Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
31-40 age	Female	-0.564**	-0.670**	-0.673**	-0.665**	-0.548**	-0.554**
Control   Cont							
Al-50 age	31-40 age	0.318**					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		,	` .	,			
S1+ age	41-50 age	$0.254^{*}$	$0.200^{\dagger}$	0.135	0.274*	$0.231^{\dagger}$	$0.259^*$
Foreign		(0.124)	(0.116)	(0.115)	(0.121)	(0.119)	(0.125)
Foreign	51+ age	-0.082	-0.143	$-0.225^{\dagger}$	-0.043	-0.108	-0.077
Married (0.173) (0.165) (0.164) (0.170) (0.170) (0.173) (0.228** 0.263** 0.260** 0.192** 0.284** 0.225** (0.086) (0.080) (0.084) (0.083) (0.086) (0.086) (0.084) (0.083) (0.086) (0.086) (0.084) (0.083) (0.086) (0.087) (0.016) (0.016) (0.016) (0.017) (0.016) (0.016) (0.016) (0.017) (0.071) (0.006) (0.018) (0.029) (0.029) (0.029) (0.029) (0.018) (0.018) (0.029) (0.019) (0.020) (0.018) (0.007) (0.006) (0.007) (0.007) (0.007) (0.006) (0.007) (0.00		(0.144)	(0.134)	(0.134)	(0.140)	(0.138)	(0.145)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Foreign	0.244	0.220	0.182	0.188	0.264	0.240
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			\	\			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Married						
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.086)	(0.080)	(0.080)	(0.084)	(0.083)	(0.086)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Education	$0.031^{\dagger}$	0.024	$0.028^{\dagger}$	0.037*	0.015	$0.030^{\dagger}$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.017)	(0.016)	(0.016)	(0.016)	(0.016)	(0.017)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Income - ln	0.022	0.040*	0.040*	0.029	0.029	0.022
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.020)	(0.018)	(0.018)	(0.020)	(0.019)	(0.020)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Wealth - ln	-0.015*	-0.015*	-0.016*	-0.014*	-0.015*	-0.015*
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$							
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Unemployed	0.506**	0.609**	0.594**	0.535**	0.539**	0.507**
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			\ /	,	· /	,	· /
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Moved		0.146		0.129		0.148
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.103)	(0.097)	(0.096)	(0.101)	(0.101)	(0.103)
Network frequency $0.009$ (0.041) (0.056) $0.024$ (0.061) (0.061)           Network size $-0.150^*$ (0.060) (0.080) $-0.024$ (0.088)           Family inspiration $0.677^{**}$ (0.087) (0.117) (0.129)           Friends inspiration $0.595^{**}$ (0.087) (0.117) (0.129)           U x Network frequency $-0.085$ (0.075) (0.075) (0.082)           U x Network size $-0.085$ (0.017) (0.109) (0.119)           U x Family inspiration $-0.272^{\dagger}$ (0.271)	Urban		$0.205^{\dagger}$				$0.407^{*}$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.081)	(0.121)	(0.155)	(0.101)	(0.105)	(0.193)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Network frequency	0.009	0.134*				0.024
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		(0.041)	(0.056)				(0.061)
Family inspiration $0.677^{**}$ $(0.087)$ $(0.117)$ $(0.129)$ Friends inspiration $0.595^{**}$ $(0.087)$ $(0.087)$ $(0.117)$ $(0.129)$ $0.965^{**}$ $0.645^{**}$ $(0.087)$ $(0.087)$ $(0.117)$ $(0.118)$ $(0.129)$ U x Network frequency $(0.087)$ $(0.075)$ $(0.082)$ U x Network size $(0.075)$ $(0.117)$ $(0.109)$ $(0.119)$ U x Family inspiration $(0.082)$ $(0.082)$	Network size		,	-0.024			
Friends inspiration $\begin{pmatrix} 0.087 \\ 0.595^{**} \\ (0.087) \end{pmatrix}$ $\begin{pmatrix} 0.117 \\ 0.965^{**} \\ 0.045^{**} \\ (0.116) \end{pmatrix}$ $\begin{pmatrix} 0.129 \\ 0.645^{**} \\ (0.129) \end{pmatrix}$ U x Network frequency $\begin{pmatrix} -0.085 \\ (0.075) \end{pmatrix}$ $\begin{pmatrix} 0.085 \\ (0.075) \end{pmatrix}$ $\begin{pmatrix} 0.082 \\ -0.117 \\ (0.109) \end{pmatrix}$ $\begin{pmatrix} 0.199 \\ (0.119) \end{pmatrix}$ U x Family inspiration $\begin{pmatrix} 0.129 \\ 0.087 \\ 0.082 \\ 0.119 \end{pmatrix}$		(0.060)		(0.080)			(0.088)
Friends inspiration $0.595^{**}$ $(0.087)$ $0.645^{**}$ $0.645^{**}$ $0.645^{**}$ $0.085$ $0.016)$ $0.129$ U x Network frequency $0.085$ $0.075$ $0.082$ U x Network size $0.075$ $0.017$ $0.017$ $0.017$ U x Family inspiration $0.595^{**}$ $0.645^{**}$ $0.645^{**}$ $0.645^{**}$ $0.645^{**}$ $0.645^{**}$ $0.645^{**}$	Family inspiration	0.677**			1.078**		0.828**
		(0.087)			(0.117)		(0.129)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Friends inspiration	0.595**				0.965**	0.645**
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		(0.087)				(0.116)	(0.129)
U x Network size $-0.117$ (0.109) $-0.140$ (0.119)         U x Family inspiration $-0.272^{\dagger}$ $-0.271$	U x Network frequency		-0.085				-0.035
U x Network size $-0.117$ (0.109) $-0.140$ (0.119)         U x Family inspiration $-0.272^{\dagger}$ $-0.271$			(0.075)				(0.082)
U x Family inspiration $-0.272^{\dagger}$ $-0.271$	U x Network size		, ,	-0.117			
J				(0.109)			(0.119)
v ·	U x Family inspiration				$-0.272^{\dagger}$		-0.271
(0.156) $(0.173)$	•				(0.156)		(0.173)
U x Friends inspiration -0.187 -0.072	U x Friends inspiration				, ,	-0.187	-0.072
(0.153) $(0.173)$						(0.153)	(0.173)
Constant $-0.317$ $-0.243$ $-0.006$ $-0.448^{\dagger}$ $-0.411^{\dagger}$ $-0.504^{\dagger}$	Constant	-0.317	-0.243	-0.006	-0.448 <sup>†</sup>	-0.411 <sup>†</sup>	-0.504 <sup>†</sup>
(0.266) $(0.243)$ $(0.253)$ $(0.250)$ $(0.243)$ $(0.280)$							
Pseudo $R^2$ 0.22 0.11 0.11 0.19 0.18 0.22	Pseudo R <sup>2</sup>	0.22	0.11	0.11	0.19	0.18	0.22
Log-likelihood -700 -797 -799 -724 -735 -697							
Observations 1528 1528 1528 1528 1528 1528	0						

Note: \*\*, \*, and  $^{\dagger}$  is significant at the 1%, 5%, and 10% level, respectively.

#### 8.6.3 Robustness Check

Robustness analysis of the above results was conducted using the following three steps. All tables were reproduced, but instead of excluding the semi-urban respondents, they were first included in the group of urban individuals and second in the group of rural individuals. This resulted in only a few significant differences in the main findings. When the semi-urban respondents were included in the group of urban individuals, living in an urban area was found to have an insignificant influence on the probability of survival. Furthermore, the positive effect of family encouragement on start-up was found to be significantly lower in urban areas when including semi-urban respondents. On the contrary, when semi-urban respondents were included in the group of rural individuals, living in an urban area was still found to reduce the probability of survival and the positive effect of family encouragement was still present in both urban and rural areas. However, the positive effect on survival of frequent contact with a network was not found to be reduced in urban areas as before.

Third, the dichotomy between urban and rural areas was dropped for a continuous variable: the number of individuals living in the respondent's municipality (see Figure 1 for the 271 municipalities of Denmark in 2004). In order to get a meaningful interpretation of the results, the variable was normalized by subtracting the 25% percentile (=6,538 inhabitants) and dividing by the standard deviation (=122,152 inhabitants). Again, this resulted in only a few differences in the main results. First, the negative effect on survival based on living in a more populated municipality disappeared. Second, the direct measure of creativity was found to be unimportant for start-up in urban and rural areas.

Summing up, the results seem to be robust with the following notes. The result regarding individual creativity is dependent on an urban-rural dichotomy. The semi-urban areas are more similar to the urban areas when it comes to survival chances but more like rural areas when it comes to the dependence on family encouragement.

Table 12 (in Thesis) Table 7: Probit models for new firm survival - Social network.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Female	-0.216*	-0.234*	-0.227*	-0.252**	-0.224*	-0.213*
	(0.094)	(0.092)	(0.091)	(0.092)	(0.092)	(0.095)
31-40 age	0.141	0.179	0.125	0.154	0.155	0.141
	(0.116)	(0.115)	(0.116)	(0.115)	(0.115)	(0.117)
41-50 age	0.153	0.180	0.102	0.153	0.143	0.147
	(0.129)	(0.127)	(0.128)	(0.127)	(0.127)	(0.129)
51+ age	0.123	0.132	0.038	0.117	0.098	0.102
	(0.161)	(0.159)	(0.158)	(0.158)	(0.157)	(0.162)
Foreign	-0.077	-0.078	-0.110	-0.089	-0.102	-0.051
	(0.160)	(0.159)	(0.159)	(0.160)	(0.159)	(0.161)
Married	0.015	0.047	0.033	0.016	0.048	0.020
	(0.088)	(0.087)	(0.087)	(0.087)	(0.086)	(0.088)
Education	0.002	-0.002	0.002	0.001	-0.003	0.005
	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Income - ln	-0.012	-0.011	-0.010	-0.010	-0.011	-0.013
	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.021)
Wealth - ln	0.018**	0.018**	0.018**	0.019**	0.018**	0.018**
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Unemployed	-0.030	-0.018	-0.043	-0.035	-0.045	-0.025
	(0.098)	(0.097)	(0.097)	(0.097)	(0.097)	(0.098)
Moved	-0.152	-0.152	-0.150	-0.158	-0.149	-0.160
	(0.100)	(0.100)	(0.099)	(0.100)	(0.099)	(0.100)
Urban	-0.196*	0.090	-0.088	0.035	-0.202	0.231
	(0.086)	(0.137)	(0.166)	(0.130)	(0.139)	(0.215)
Network frequency	0.094*	0.229**				0.196**
<i>-</i>	(0.042)	(0.063)				(0.065)
Network size	-0.158*	(0.000)	-0.079			-0.120
	(0.063)		(0.089)			(0.091)
Family inspiration	0.259**		(=====)	0.521**		0.475**
Tominy mopheton	(0.089)			(0.125)		(0.136)
Friends inspiration	0.065			(0.120)	0.162	-0.049
Thends inspiration	(0.092)				(0.124)	(0.137)
U x Network frequency		-0.223**				-0.186*
o k freework frequency		(0.083)				(0.085)
U x Network size		(0.000)	-0.090			-0.072
o ii i i o o o o ii o o o o o o o o o o			(0.120)			(0.124)
U x Family inspiration			(0.120)	-0.392*		-0.393*
c x runniy mspiration				(0.164)		(0.177)
U x Friends inspiration				(0.101)	-0.011	0.211
o a rrionas inspiración					(0.167)	(0.183)
Employees - ln	0.138	0.148	0.143	0.123	0.144	0.134
project in	(0.125)	(0.126)	(0.125)	(0.125)	(0.125)	(0.127)
Ownership personal	$-0.194^{\dagger}$	$-0.193^{\dagger}$	-0.189 <sup>†</sup>	-0.216*	$-0.201^{\dagger}$	$-0.197^{\dagger}$
Ownership personal	(0.194)	(0.107)	(0.107)	(0.107)	(0.107)	(0.108)
Industry control	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.394	0.185	$0.620^{\dagger}$	0.220	0.417	0.163
Combunity	(0.329)	(0.322)	(0.329)	(0.318)	(0.314)	(0.344)
Pseudo $\mathbb{R}^2$	0.07	0.06	0.06	0.07	0.06	0.08
Log-likelihood	-690	-696	-700	-693	-701	-685

Note: \*\*, \*, and  $\dagger$  is significant at the 1%, 5%, and 10% level, respectively.

#### 8.7 Discussion

To put this paper into context, it must be noted that in the first stages of research, a much larger number of entrepreneurship indicators were analysed: 14 for identity, 12 for start-up motivation, 19 for social network characteristics and 18 for social network utilization during start-up. Out of these 63 indicators, only a few showed significant differences between the entrepreneurs in urban and rural settings. The main distinctions found were between entrepreneurs and non-entrepreneurs and not between urban and rural populations. This is in line with the finding of Babb and Babb (1992) but goes against much of the literature claiming significant differences between urban and rural inhabitants, particularly between entrepreneurs. The present paper has focused on only a few theoretical important variables related to individual creativity and social networks, exploring the need for combing the person with the environment in the study design.

Creative individuals do not have a higher probability of becoming an entrepreneur in rural areas but they do in urban areas. This supports the view of individual creativity as only a latent capacity for entrepreneurship, which is fostered by the supportive environment of urban areas but not in rural areas. Therefore, the results may support the literature that points out the relationship between creativity and larger cities. Taking the view that creativity can be learned, this finding is of special interest for entrepreneurship education. However, turning to the proxy for individual creativity (intrinsic motivation higher than extrinsic motivation), other entrepreneurial traits and risk willingness all indicators are positively related to being an entrepreneur, regardless of geographical setting. Interestingly, the direct measure of individual creativity, or that of the other variables, does not seem to have a significant influence on the probability of survival. In other words, individual creativity is not the only ingredient for making entrepreneurship to last. Instead, business characteristics such as financial resources, ownership type and industry are more important for survival. However, starting a business in an urban area reduces the probability of survival which should be taken into account when choosing a start-up location.

Starting with the two size measures of the social network, none of the following indicators have been shown to have an effect on start-up: 1) The number of different groups the respondent talks to every or almost every week and 2) The number of individuals the respondent would talk to about significant considerations of a career change,. However, the previous indicators increase the probability of survival, but only in rural areas. The same conclusion can be

made when it comes to having a moral support network indicated by encouragement for start-up by family and friends. Both indicators have a significant and positive effect (of almost equal size) on start-up independent of geographical setting. However, when turning to chances of survival, only family encouragement is significant and positive, and the effect is almost eliminated in urban areas. Overall, these findings support the view of the social network as being important for start-up, but when it comes to survival, urban entrepreneurs do not seem to have much to gain. This calls into question how many network building initiatives for entrepreneurs should be promoted in different areas.

Below, the limitations and possibilities for future research are briefly discussed. First, even though the above findings seem to be robust regarding changes in the urban/rural definition, further experiments could be conducted, i.e. do the findings change significantly if the 20 kilometre limit (the set commuting distance to the four major cities) is changed to 10 or 30 km.? Furthermore, it should be noted that the municipality of the respondent's home was chosen as the definition of an urban and rural inhabitant instead of their municipality of business. This was necessary in order to categorise the non-entrepreneurs. However, it is safe to assume that the entrepreneurs in most cases live close to the business that they started and are actively involved in.

Finally, it should be mentioned that the results in this paper are based on quantitative analysis of survey data. Using survey data from after business start-up instead of before it could be problematic if creativity and network behaviours have changed. In other words, the causality could be the opposite of the assumed. Hence, it could be that only after business start-up does the entrepreneur become more creative and/or make changes to the social network. However, the time-lag between the start-up and survey response is limited to four years. The findings of this quantitative study could be supplemented with more in-depth qualitative research.

#### 8.8 Conclusion

Studies linking individual characteristics (and their means) to the decision of becoming an entrepreneur and its subsequent chance of success are large in number. However, their findings are not conclusive, which could be due to these factors only being latent capacities for entrepreneurship or the different samplings of individuals. Many studies have had been carried out using only individuals from urban areas. As previous research has shown, this may be acceptable, since urban and rural entrepreneurs share many similarities;

however, a clearer understanding of the differences between urban and rural entrepreneurs could be taken into account to provide some caveats.

Some time ago, Illeris found in his research on the service businesses geography in Denmark: "There is no simple centre/periphery geography in their distribution. Big cities may have or may lack some of all of these resources, and suburbs and inner cities [as well as rural areas] may be differently endowed" (Illeris, 1988, p.74). The heterogeneity across urban and rural entrepreneurship is not likely to be only circumscribed to Denmark. As already suggested by Babb and Babb (1992) in the United States, entrepreneurs are not so different from each other regardless of their geographical location (the main differences are between entrepreneurs and non-entrepreneurs). However, there are some key differences between urban and rural entrepreneurs that can determine firm start-up as well as survival.

This paper explores two facets that many considered to be crucial for entrepreneurship in general, namely individual creativity and social network, by allowing for a different role of these entrepreneurial means in urban and rural areas. An important finding is that creative individuals have a higher probability of establishing a business if they are located in urban areas, but creativity does not influence their chances of success which are dependent on other factors. Regarding social networks, the main finding is that encouragement from family and friends is important for start-up in both urban and rural areas, but when it comes to survival, frequent contact with more groups and encouragement from family are only important in rural areas.

All in all, the study confirms that individual creativity and the social network are important for entrepreneurship as suggested in the literature. However, leaving out the environment could lead to insignificant or misleading results, impacting entrepreneurship policy. This study hopes to encourage more entrepreneurship research not solely focused on the individual or the environment but on bring these to aspects into the design.

## 8.9 Appendix

Table 13 (in Thesis) Table 8 in Chapter. Indicators for identity and network from the survey.

Indicator	Description	mputations
Intrinsic motivation	Dummy: The value 1 if the respondent finds more intrinsic values "very important" compared to extrinsic values if the respondent were to say yes to a new job. 8 intrinsic values (e.g. "the work entails responsibility", "the work tasks are varying", "you can work independently", and "you can strengthen skills and abilities") and 8 extrinsic values (e.g. "the work provides a high income", "the work is a good stepping stone for my further career", "the work tasks are tailored to the working hours", and "the colleagues show a personal interest in me" are included. The extrinsic values covers the financial, career, convenience, and co-worker dimension with two values for each.	107 - 7%
Entrepreneurial traits	Discrete: The number of entrepreneurial traits that the respondent posses derived from 10 mixed and reversed statements related to the five traits: Tolerance of ambiguity (e.g. "I often pursue the attractive but uncertain opportunities"), need for achievement (e.g. "I prefer result-oriented and innovatory tasks"), locus of control "I think that success is the result of hard work", optimism (e.g. "I always expect the best outcome of a situation", and desire for autonomy ("I like to determine myself how tasks are completed"). The value 1 is given for each trait if there is agreement and disagreement with the two reversed statements. Two additional statements covering creativity was removed to create a separate indicator.	67 - 4%
Creativity	Dummy: The value 1 if there is agreement and disagreement with the two reversed items covering this entrepreneurial trait ("I often think of new ideas and ways to solve tasks" and "I prefer to accomplish tasks the way I have always done"). The statements are mixed with 10 statements covering other traits (see previous indicator).	40 - 3%
Risk willingness	Continuous: The respondents reservation price for one out of ten lottery tickets divided by the fair price of this ticket given the one prize (of 100,000 DKK) in the lottery. The respondent is risk averse for values between 0 and 1, risk neutral for the value 1, and risk loving for values above 1.	126 - 8%
Contact frequency	Discrete: The number of different groups that the respondent talks to every or almost every week (including over telephone, mail, social network software, etc.). The four different groups included are: "Present colleagues or business relations outside of the work place", "Persons mainly known as former colleagues or business relations", "Persons mainly known as former schoolmates or fellow students", and "Persons mainly known from associations (e.g. sport and leisure).	53 - 3%
Size of network	Continuous: The natural logarithm to the number of individuals that the respondent would talk to about considerations over a longer period of time regarding a career change. Included are the following individuals: "Close family (i.e. spouse/partner, parents, siblings, and children)", "Other family", "Present colleagues", "Former colleagues", "Other friends and acquaintances", and "Professionals" (e.g. coach).	201 - 13%
Family encouragement	Dummy: The value 1 if the respondent has been inspired or encouraged by close family (i.e. spouse/partner, parents, siblings, and children) or other family to start a business.	59 - 4%
Friends encouragement	Dummy: The value 1 if the respondent has been inspired or encouraged by present colleagues, former colleagues, or other friends/acquaintances to start a business.	71 - 5%

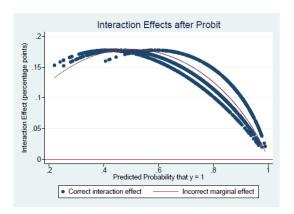
Table 14 (in Thesis) Table 9 in Chapter: Descriptive statistics of categorical variables.

	Entrepreneur				No	on-Entr	eprene	Non-Entrepreneur			
	Urban		Rı	ıral	Ur	ban	Ru	ral			
	frq.	pct.	frq.	pct.	frq.	pct.	frq.	pct.			
Gender											
Male Female	$\frac{423}{192}$	$69\% \\ 31\%$	$\frac{349}{144}$	71% $29%$	100 120	45% 55%	82 118	41% 59%			
Age											
-30 years 31-40 years 41-50 years 51+ years	120 232 180 83	20% 38% 29% 13%	99 193 144 57	20% 39% 29% 12%	65 60 55 40	30% 27% 25% 18%	47 43 69 41	24% $22%$ $35%$ $21%$			
Foreign origin											
Danish Other	561 54	$91\% \\ 9\%$	$\frac{470}{23}$	95% 5%	206 14	94% 6%	198 2	99% 1%			
Married											
No Yes	279 336	45% $55%$	$\frac{177}{316}$	$36\% \\ 64\%$	114 106	52% $48%$	101 99	51% $50%$			
Move to area											
No move Move	$501 \\ 114$	$81\% \\ 19\%$	$\frac{357}{136}$	72% $28%$	$\frac{186}{34}$	85% $15%$	163 37	82% $19%$			
Unemployed											
No Yes	$\frac{486}{129}$	$79\% \\ 21\%$	$\frac{364}{129}$	$74\% \\ 26\%$	200 20	91% 9%	$\begin{array}{c} 178 \\ 22 \end{array}$	89% $11%$			
Intrinsic											
No Yes	$\frac{128}{487}$	$\frac{21\%}{79\%}$	118 375	$\frac{24\%}{76\%}$	71 149	$\frac{32\%}{68\%}$	$\frac{78}{122}$	$\frac{39\%}{61\%}$			
Creativity											
No Yes	252 363	$\frac{41\%}{59\%}$	$\frac{274}{219}$	$\frac{56\%}{44\%}$	131 89	60% 40%	115 85	57% 43%			
Family encouragement											
No Yes	252 363	$\frac{41\%}{59\%}$	$\frac{172}{321}$	35% $65%$	161 59	73% $27%$	$\frac{162}{38}$	81% 19%			
Friends encouragement											
No Yes	192 423	$\frac{31\%}{69\%}$	178 315	$\frac{36\%}{64\%}$	148 72	67% 33%	155 45	78% $23%$			
Industry											
Service Hotel/Restaurant Wholesale Retail Building/Construction Manufacturing	300 48 29 84 71 83	49% 8% 5% 14% 12% 13%	169 48 17 89 123 45	34% 8% 5% 18% 25% 9%	- - - -	- - - -	- - - -	-			
Ownership type											
Personal Other	465 150	$76\% \\ 24\%$	400 93	81% 19%	-	-	-	-			

Table 15 (in thesis) Table 10 in Chapter. Descriptive statistics of continuous variables.

		N	mean	std. dev.	min	max
Education - Years further	r					
Entrepreneur	Urban	615	4.987	2.402	-2	11
-	Rural	493	3.872	2.286	-3	11
Non-Entrepreneur	Urban	220	4.488	2.630	-2	11
	Rural	200	3.433	2.262	-2	8
Income - ln						
Entrepreneur	Urban	615	12.093	2.095	O	14.769
N. D.	Rural	493	11.940	1.823	0	14.251
Non-Entrepreneur	Urban	220	11.660	2.438	0	14.118
XX7 1/1 1	Rural	200	11.684	1.689	0	14.033
Wealth - ln						
Entrepreneur	Urban	615	7.623	6.373	0	15.510
	Rural	493	6.194	6.269	0	15.769
Non-Entrepreneur	Urban	220	8.371	6.031	0	15.805
	Rural	200	7.458	6.030	0	14.897
Traits score						
Entrepreneur	Urban	615	2.085	1.316	0	5
	Rural	493	1.777	1.238	0	5
Non-Entrepreneur	Urban	220	1.550	1.179	0	5
	Rural	200	1.240	1.014	0	4
Risk score						
Entrepreneur	Urban	615	0.204	0.362	0	4
	Rural	493	0.181	0.418	0	5
Non-Entrepreneur	Urban	220	0.101	0.209	0	1
	Rural	200	0.083	0.163	0	1
Contact score						
Entrepreneur	Urban	615	1.354	0.969	0	4
	Rural	493	1.343	0.995	0	4
Non-Entrepreneur	Urban Rural	$\frac{220}{200}$	1.214 $1.145$	0.963 $0.964$	0	4
Size - ln	Touren		1.110	0.001		
P. d	TT 1	0.4.5	4 222	0.040		0.404
Entrepreneur	Urban	615	1.222	0.643	0	3.401
Non-Entrepreneur	Rural Urban	$\frac{493}{220}$	$1.141 \\ 1.361$	$0.673 \\ 0.668$	0	3.912 $3.401$
11011-Entirepreneur	Rural	200	1.212	0.682	0	3.219
Employees (fte) - ln						
Entrepreneur	Urban	615	0.069	0.292	0	2.708
Englepreneur	Rural	493	0.104	0.292	0	2.833

The following figures represent Figures 2, 3, 4 and 5 in the Chapter.



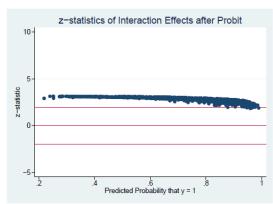
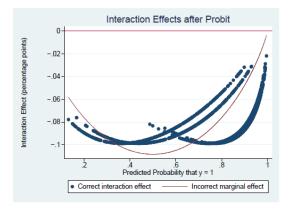
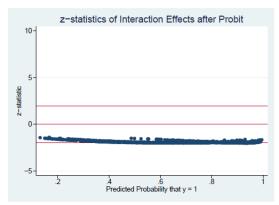


Figure 8 Interaction effect (Urban x Creativity) as a function of predicted probability of being an entrepreneur.

Figure 9 Significance of interaction effect (Urban x Creativity) as a function of predicted probability being of entrepreneur.

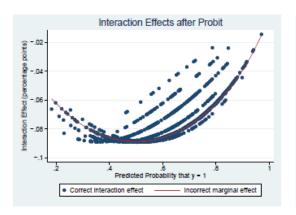




Family E) as a function of predicted (Urban x Family) as a function of predicted probability of being an entrepreneur.

Figure 10 Interaction effect (Urban x Figure 11 Significance of interaction effect probability of being an entrepreneur.

The following figures represent Figures 6, 7, 8 and 9 in the Chapter.



z-statistics of Interaction Effects after Probit

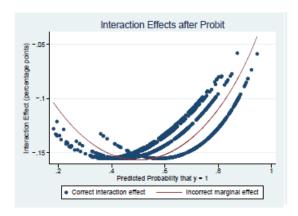
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A

Predicted Probability that y = 1

Figure 12 Interaction effect (Urban x Contact) as a function of predicted probability of having survived as an entrepreneur.

Figure 13 Significance of interaction effect (Urban x Contact) as a function of predicted probability of having survived as an entrepreneur.



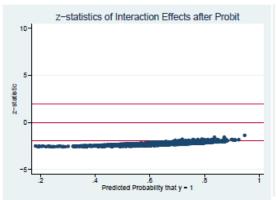


Figure 14 Interaction effect (Urban x Family E) as a function of predicted probability of having survived as an entrepreneur.

Figure 15 Significance of interaction effect (Urban x Family) as a function of predicted probability of having survived as an entrepreneur.

## Article 4. Vallejo, California. (Chapter 9)

This chapter is based on a version accepted for publication with revisions at the International Journal of Innovation and Regional Development in July 2011. Reprints and permissions contact journal. Author: L.C. Freire-Gibb.

# Vallejo, California. A case for City Region Innovation System Promotion?<sup>21</sup>

Abstract: This article investigates the innovative city region of the San Francisco Bay Area. However, it does not focus on the city's prosperous places, but instead analyzes one of its social, economic and geographical fringes: the city of Vallejo. In 2008 Vallejo filed for bankruptcy, and today it is the largest city in bankruptcy in the United States. The findings are based on an historical economic geographic study and dozens of interviews. It is argued that Vallejo requires a deep process of socioeconomic innovation. However, it is also argued that it is not only the 'district' of Vallejo that is in need of this process but the whole San Francisco city region. This article proposes the concept of City Region Innovation System Promotion as a way to improve entrepreneurial dynamics and innovation in the 'broad' sense. The suggestions here can be potentially useful for city regions in United States and the European Union.

#### 9.1 Introduction

The municipality of Vallejo (115,942 inhabitants in 2010), which is part of the San Francisco city region, has had an interesting economic evolution. Only a few years ago, the city was considered one of most business friendly in California<sup>22</sup>. However, due to a combination of factors, the city filed for

<sup>&</sup>lt;sup>21</sup> Thanks to Prof. Dick Walker, Alex Schafran and Seth Lunine from University of California, Berkeley. Also Jim Kern, Director of the Vallejo Naval Historical Museum and Jason Tanner. Further thanks to Professors Søren Kerndrup, Björn Johnson and Esben Andersen at Aalborg University. This paper has also benefited from the comments at the presentation of an earlier draft which was presented at the conference 'Towards a Just Metropolis' June, 2010 at UC Berkeley, and the Winter DRUID Conference, January 2011, Denmark. I had also received beneficial inputs when a simplified version of this paper was published online at the Vallejo Independent Bulletin on January 2011. I am also grateful to two anonymous referees from the International Journal of Innovation and Regional Development. Final thanks to Aksel K. Olsen (UC Berkeley) and Prof. Bernd Möller (Aalborg) for their input.

<sup>&</sup>lt;sup>22</sup> The city website [www.ci.vallejo.ca.us] showed that the city was ranked first among the 'Best Cities for Entrepreneurs in America Middle Sized Cities' Entrepreneur Magazine, Oct. 2003. It was ranked fifth among the 'Best Places for Business in California' Forbes, 2002. It was also ranked ninth in the 'Top 20 Medium Size Cites Doing Business in the U.S.' INC Magazine

bankruptcy in 2008 making it the largest city in the history of California to have done so and the only city in the United States to currently be in this process<sup>23</sup>. Yet, this paper suggests that Vallejo will hardly improve its circumstances without more cohesive and effective governance at the city-region level. This has been proposed in environmental or social justice strands of research for the San Francisco city region, which this paper supports but on the basis of improving the regional entrepreneurial dynamics and innovation in the 'broad' sense.

The bankruptcy situation of Vallejo is more than worrisome, but this does not imply that there are not other localities in worse conditions that are not officially in bankruptcy. In June 2010, President Obama sent a letter to the Congress and Senate in which he expressed his concern for the local and regional level:

"Because this recession has been deeper and more painful than any in 70 years, our state and local governments face a vicious cycle. The lost jobs and foreclosed homes caused by this financial crisis have led to a dramatic decline in revenues that has provoked major cutbacks in critical services at the very time our Nation's families need them most. Already this year, we have lost 84,000 jobs in state and local governments if additional action is not taken hundreds of thousands of additional jobs could be lost" (Obama, 2010).

This address by President Obama is just one example of the increasingly serious concern for a large proportion of the population due to the economic turmoil that is currently taking place at the local and state/provincial level throughout Western countries<sup>24</sup>. Particularly in the United States, the economic debate is concentrated on the government's budget. Those on the left support Obama's position of using additional funding as they say the solution will come from injecting money into the budget. From a right wing perspective, the solution comes from cutting the "government's wasteful budget." However, increasing or decreasing the budgets per se (as well as raising or lowering taxes), among other local economic strategies, will hardly tackle the social and economic structural quandaries of cities.

Best Cities, 2004.

<sup>&</sup>lt;sup>23</sup> There is a possibility that in July, 2011 Vallejo will come out of bankruptcy; however, there is much negotiation and legal work to be done.

<sup>&</sup>lt;sup>24</sup> Here the United State's President has been quoted; however, examples from many other European leaders could also have been used to point out the precarious situations of many cities.

This article supports the literature that claims that cities are the engine of the economy (Jacobs, 1969; Polèse, 2010; Glaeser, 2011); however, it will be argued that on many occasions the focus should not be at the city level but at the city-region level. The concept of a 'City Region Innovation System Promotion' (CRISP) is proposed. Innovation is created by actors and networks which evolve in existing socioeconomic formal institutions (e.g. education, legal) and informal institutions (e.g. trust, willingness to collaborate). This is related to innovation in the broad sense. The idea of "system promotion" was first developed as a suggestion for what developing countries could do to develop their economies (Lundvall, Johnson, Andersen and Dalum, 2002). While American and European city regions are immensely different from developing countries, in many instances city regions lack cohesive policies at social and economic levels, and inequality and heterogeneity keeps growing (Kotkin, 2010). Therefore, many city regions could benefit from applying the idea of 'system construction' or 'system promotion'.

Regarding the San Francisco Bay Area, the proposition of more regional cohesion is certainly not new. In the 1950s and 1960s, there was much discussion on the need for a regional government (or a new regionalism), and a resurgence of initiatives resurfaced in the early 2000s (SPUR, 2003; Walker, 2007). While some progress has been made in other American city regions (Clark and Christopherson, 2009), and particularly in Canada, China and some European countries, nonetheless today the idea seems dormant in the Bay Area. In informal conversations with Bay Area urban planners and economic geographers involved in environmental or social justice issues, they now call this idea 'the pipe dream'. This article suggests that a more cohesive city region should be considered based on improving its entrepreneurial dynamics. In other words, success of entrepreneurship, usually related to an individual endeavor, is intrinsically related to a collective or regional process.

This article is divided into 9 more sections, after the introduction. Section 2 overviews the increasing focus on city regions in order to better understand economic evolution. Section 3 presents some theory regarding local economic development and entrepreneurship. Section 4 presents the methodology. Section 5 puts forward some points about the San Francisco city region. Section 6 presents Vallejo, and section 7 discusses the four key moments in its economic evolution. Section 8 summarizes some of the lessons learned from these key moments. Section 9 introduces the concept of CRISP. The last section concludes with some final remarks

## 9.2 City Regions: Primary Organs of the Economy

Jane Jacobs, along with many others before her, claimed that cities were the "primary economic organs" (Jacobs, 1969); later she began paying more attention to the city region:

"In the hinterlands of some cities —beginning just beyond the suburbs— rural, industrial, and commercial workplaces are mingled and mixed together. Such city regions are different from all other regions, having the richest, densest, and most intricate economies to be found, except for those of cities themselves" (Jacobs, 1984, p.45)<sup>25</sup>.

Certainly, over the last two decades there has been an ever increasing interest in the city-region level in order to explain the economy (Scott, 2001) even though there is not a clear definition of the concept (Rodriguez-Pose, 2008). However, the city region is related to research done on labor-market regions, which "as a geographical unit, (...) are often used to determine intra- and interregional (e.g. knowledge transfers and labor flows)" (Timmermans, 2010, p. 158).

Also, terms such as megaregions (Florida, 2010) and megacities (Buijs, Tan and Tunas, 2010) are attracting much interest among researchers and may in the future be used even more often because of the necessity of addressing a new spatial fix. These terms are intimately related to the concept of the city region (even though the term "mega" suggests a larger agglomeration), but it could be only a difference of semantics. Here the term city region is chosen because it emphasizes the interplay between the core of the city and the region.

Rodriguez-Posé (2008) highlights many of the potential advantages of the city-region approach and states that "city-regions are considered to be at an ideal scale for policy innovation" because these urban areas have a) internal diversity that is bred through constant innovation, b) successful dissemination of policy innovation, and c) proximity to policy makers. Rodriguez-Posé then investigates "whether city-regions are the panacea" and concludes that city regions should not promote a city region policy per se. Because of the likelihood it will lead to greater inequalities and control by city-region elites, he suggests that if a city region should be made, it should be on the basis of more cohesiveness.

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<sup>&</sup>lt;sup>25</sup> Jacobs (1984) also identified San Francisco as one of the few cities that had evolved into a city region.

In the literature of systems of innovation, most of the studies have followed geographical levels, such as national (Lundvall, 1992) and regional (Cooke, 1998)<sup>26</sup>. Understanding the innovation process at those levels is crucial; however, the metropolitan or city-region level has received little attention (Fischer, Revilla Diez and Snickars, 2002). It could be argued that the city-region level is included in the regional analysis, and to a certain extent that is true. Even though the Regional Innovation System has some critics (Doloreux and Parto, 2005), using some type of 'city region innovation system' approach could be an effective tool for understanding innovation<sup>27</sup>. The city-region approach seems relevant for analyzing the process of economic development, and academics who focus on the city-region level even claim that "our world order comes to be built on cities and their economies, rather than nations and their armies" (Khana, 2010).

## 9.3 Local Economic Development and Entrepreneurial Dynamics

The field of local economic development (LED) has been highly beneficial to the discussion of the opportunities and limitations of cities and towns. The LED literature has an ambivalent position towards city regions mainly because economic development agencies generally follow city limits. Lack of city-region governance occurs in most Western city regions<sup>28</sup>, which have inherited a bygone political segmentation that "rarely define new economic opportunities" (Drabenstott, 2003).

Currently, entrepreneurship holds a fundamental position in LED literature. "It is becoming increasingly the case that it is upon this new mantel of entrepreneurship that economic policy, ranging from communities to cities, states and even entire nations hangs its hopes dreams and aspirations for prosperity and security" (Audretsch, 2009). Entrepreneurship has been embraced by scholars and policy makers in the USA and Europe, and much has been written on how it can promote regional economic development (e.g. Nolan, 2003; OECD, 2003; Arauzo-Carod and Manjón-Antolín, 2007; Julien,

<sup>&</sup>lt;sup>26</sup> Besides the geographical units, another point of view is the *sectoral* (per industry) system of innovation (Malerba, 1999). This system could lead to the conclusion that because the high-tech sector in the city region of San Francisco has thrived, the region has thrived even though this analysis leaves out other industries and socioeconomic variables which lag behind.

<sup>&</sup>lt;sup>27</sup> To the best of my knowledge, only Garner and Ternouth (2010) have used this concept in a conference paper. They used it for the Manchester (UK) city region that focuses on a triple helix model more related to the 'narrow' sense of innovation.

<sup>&</sup>lt;sup>28</sup> Popular exceptions of popular city regions are Toronto and Stuttgart.

2007; Audretsch 2009; Walzer, 2009; Borrás, Chaminade and Edquist, 2009; Glaeser, Rosenthal and Strangeet, 2010; Acs, Bosma and Sternberg, 2011). However, at the end of the road, local entrepreneurship policy has very limited options (Hart, 2003; Lundstöm and Stevenson, 2005).

The idea of elected officials engaging in LED initiatives has been heavily criticized from many fronts due to the many mistakes they have made in the past (Goodman, 1979)<sup>29</sup>. In fact, Vallejo shows that it has tried different LED strategies since the late XIX century; however, the city's entrepreneurship has not performed particular well when compared to its neighbors. Lack of innovation in a 'broad' sense is suggested as a reason why entrepreneurship efforts and accompanying economic policy falls short in ordinary places.

In order to understand the process of this innovation, the systems of innovation literature provides a useful tool. The system of innovation (or innovation system) "encompasses all institutions which affect the introduction and diffusion of new products, processes and systems in a national economy" (Freeman, 1992). A system of innovation that can foster innovation in the 'broad' sense includes key public and private sector organizations<sup>30</sup>. In the case of a hypothetical system of innovation in the city region of San Francisco, the system could include participation from a broad range of educational institutions, research centers, city councils, financial institutions, economic development agencies, unions and professional organizations, among other key actors involved in the economy. Of this group, entrepreneurs would play a crucial role as they are the main actors in entrepreneurial dynamics. However, it is necessary to distinguish the individuals involved in entrepreneurial dynamics from the ones who, from a mainstream perspective, are commonly called entrepreneurs.

Entrepreneurial dynamics deal with the analysis of sustainable strategies for the process of innovation, which may be linked to innovation in the broad sense. In this strand of research, Schumpeter's theories on entrepreneurship have recently

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<sup>&</sup>lt;sup>29</sup> Harvey, the world's most quoted academic geographer (Boadman, 1991), has popularized the term "*urban entrepreneurialism*", which refers to local politicians using resources for spectacle and "*circus*" (Harvey, 1989). Today it has evolved into a common concept used to question any collaboration between public and private actors.

<sup>&</sup>lt;sup>30</sup> The 'narrow' sense of innovation is strictly related to high-technology products and processes of R&D. The 'broad' concept of the innovation system includes "all parts and aspects of the economic structure and the institutional set-up affecting learning as well as searching and exploring. (...) Determining in detail which subsystems and social institutions should be included or excluded in the analysis of the system is a task involving historical analysis as well as theoretical considerations" (Lundvall, 1992, p.12).

attracted much attention from entrepreneurship scholars<sup>31</sup>. Schumpeter (1949) laid out five traits to define entrepreneurs: 1) Sometimes entrepreneurs change the socioeconomic status quo, usually for the better, 2) They are not necessarily motivated by economic profit<sup>32</sup>, 3) It is not uncommon for them to be employed in big companies<sup>33</sup>, 4) Entrepreneurs are sometimes inventors and 5) Often entrepreneurs are not an individual but resemble a network<sup>34</sup>. These five traits give an untraditional picture of entrepreneurs. Unfortunately, the broad definition of entrepreneurship is little known in local and regional economic policy literature/research. This article explores whether or not this broader vision could help create a more cohesive economic policy at the city-region level.

## 9.4 Methodology

The city region of San Francisco has been one of the most innovative in the world. However, this study does not focus on the most successful districts of the San Francisco city region, but on Vallejo, a struggling city in its periphery. It can be argued that Vallejo is an 'extreme case' (Flyvbjerg, 2001), thus it is useful to study because it can activate "more actors and more basic mechanisms in the situation studied" (ibid., p. 78). Also, a grounded theory has been implemented in order to understand the problems of Vallejo.

<sup>&</sup>lt;sup>31</sup> For the most complete review on Schumpeter's work see Andersen (2009). The approach used in this article is somewhat related to what the Schumpeterian researchers may refer to as Mark IV (See in the Thesis section 3.2).

<sup>&</sup>lt;sup>32</sup> Schumpeter says entrepreneurial motivation is about the "joy of creating" or "the will of conquering" rather than accumulating personal wealth (Schumpeter, 1934, p. 93). See Johannisson (2007) for current business examples.

<sup>&</sup>lt;sup>33</sup> When defining who entrepreneurs are and entrepreneurship, Schumpeter (1934) claims that "these concepts are at once broader and narrower than usual. Broader, because in the first place we call entrepreneurs not only those 'independent' businessmen... but all who actually fulfill the function…even if they are…'dependent' employees of a company ... On the other hand, our concept is narrower than the traditional one in that it does not include all heads of firms or managers or industrialists who merely operate an established business, but only those who actually perform that function."

<sup>&</sup>lt;sup>34</sup> Schumpeter (1949) says, "In many cases, therefore, it is difficult or even impossible to name an individual that acts as 'the entrepreneur' in a concern" (p. 261). Later he emphasizes the importance of the geographical setting in the entrepreneurial process: "environment, public authority, corporate action and individual initiative must have co-operated" (p. 264). For Schumpeter, network collaboration, which can include individuals in the private and public sectors, is highly relevant. Sometimes he even uses examples in which successful entrepreneurs are solely in the public sector.

Primary and secondary sources were used to document the historical evolution of Vallejo. Background information on the current situation of Vallejo was mostly obtained from recent academic working papers, personal interviews and around two hundred media articles. The bulk of the interviews were done from February to July 2010. Particular efforts were made to interview a wide variety of local actors from the main networks, including representatives of public entities (government, education, city employees, economic development agencies, etc.) small businesses owners, citizens groups, journalists, and short interviews with around 40 citizens of Vallejo. Extensive notes were taken of these conversations and interviews. In some cases, questions were sent via email. A few interviews were done by telephone, but the preferred method of interviewing was face-to-face meetings. The only group that presented repeated difficulties in agreeing to a formal interview was Vallejo's police department. Conversations concerning the municipality were also held with a large number of people from the city region in order to contrast opinions and views.

Material was gathered from a pivotal City Council meeting in which the firefighters' contract was renewed. Also, complementary qualitative research was carried out by visiting and observing the city numerous times during spring 2010. Follow-up material was gathered during 2010 and the beginning of 2011.

### 9.5 The City Region of San Francisco

The city region of San Francisco is commonly known as the Bay Area. It includes San Francisco, Oakland, San Jose, Berkeley and Silicon Valley, among other places. In total, it has nine counties and 101 cities. Such segmentation makes it quite politically fragmented, although 79% of the inhabitants identify very or somewhat strongly as "a citizen of the Bay Area". They also tend to vote for less conservative candidates than the rest of the state and nation. The city region has roughly 7 million inhabitants, and with all the necessary caveats, its GDP was estimated at nearly \$400 billion in 2006<sup>36</sup> (Bay Area Council, 2008b).

<sup>35</sup> A survey asked, "How strongly do you identify yourself as a citizen of the Bay Area whereby you hold certain shared values and concerns with other residents throughout the region – very strongly, somewhat strongly, not very strongly or not at all?" (Bay Area Council, 2008a).

<sup>36</sup> Compared to Denmark with 5 million inhabitants and \$275 billion in GDP.

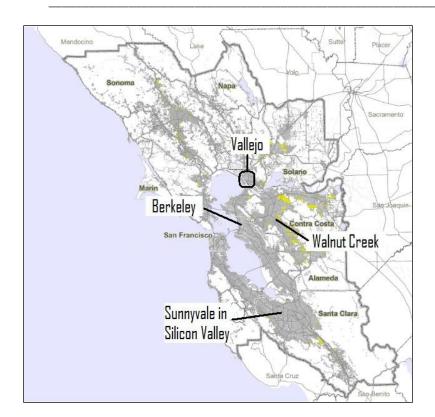


Figure 16 Map of the San Francisco City Region (Bay Area) Counties and selected places. Gray represents urbanized. Source: Association of Bay Area Governments (2011) (See Appendix 1, for another map of Vallejo).

The San Francisco region has been studied as a paradigm for innovation since the Gold Rush of the 1840s. Later, its powerful industry in the early XX century commanded attention, and most recently Silicon Valley<sup>37</sup> became the objects of an uncritical view of economic growth and a powerful symbol of US industrial leadership and entrepreneurial spirit (Walker, 1995). Of particular interest to this study, Cooke and Morgan (1998) pointed to Silicon Valley, Emilia Romagna and Baden-Württemberg as the three best examples of Regional Systems of Innovation.

However, one must look at more than the Silicon Valley district as some evidence supports the idea that there is a "need to consider the larger metropolitan context in order to understand the relationship between high tech clustering and the internal performance of manufacturing establishments"

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<sup>&</sup>lt;sup>37</sup> The concept of Silicon Valley (coined in 1971) is used in the title of nearly 400 books and 1,000 journal articles. However, there is very little written about its interdependent surrounding cities.

(Suarez-Villa, 2002). Regarding a larger metropolitan context, or city region, not until recently have key individuals in Silicon Valley begun expressing concern for its capability to secure a wealthy region. McNealy (2011), former Sun CEO admitted, "We [Silicon Valley] aren't doing manufacturing; we aren't doing design; we aren't doing computers." Grove (2010), senior adviser to Intel and its former CEO, similarly expressed: "Bay Area unemployment is even higher than the (...) national average. Clearly, the great Silicon Valley innovation machine hasn't been creating many jobs of late -- unless you are counting Asia, where American technology companies have been adding jobs like mad for years." While McNealy put the blame on the public entities for this situation, Grove blames the private ones pointing out how many of them, like Dell, have one U.S worker for every ten in China. This 1-10 pattern has been followed by many companies and has helped them achieve astonishing results. For example, Apple in 2010 had over 15 Billion USD in profits (Apple, 2010), and in the first week of August 2011 it briefly surpassed Exxon Mobil as the world's most valuable company (Forbes, 2011).

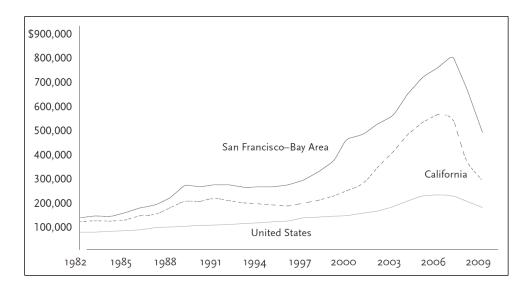


Figure 17 Median home prices. Source: Walker (2010)

The city region of San Francisco is also fully immersed in the socioeconomic problems of California. According to Walker (2010), such problems seem to have reached a worrisome point: "Today, California has run aground on the reefs of inequality and racial division, inferior schooling and incapacitated government, while those who profited from the boom times have refused to share their good fortune with new arrivals." One of the main indicators of economic chaos has been the staggering housing bubble and subsequent economic catastrophe for many citizens. The effects of housing speculation,

although felt worldwide, seems to have had California as its epicenter. Walker (2010) explains how the Bay Area had skyrocketing home values and subsequently unparalleled numbers of mass mortgage and sub-prime loans (see figure above).

While this article acknowledges the success of some parts of the San Francisco city region (Saxenian, 1994; Florida, 2010), it also points out the serious difficulties that many other parts are facing. This includes strong inequality, unemployment, faltering innovation capabilities, and housing speculation. The next section will introduce the city of Vallejo.

### 9.6 The City of Vallejo

The city owes its name to Mariano G. Vallejo (1808-1890) who took military possession of the land as a Mexican General born in California For a short period of time the city was the capital of California<sup>38</sup>.

There were several reasons the pioneer Mariano Vallejo chose this location to settle on. Besides the fertile lands, the city sits at the confluence of two rivers, has perfect weather in contrast to the foggy coast, has deep water for ocean going ships and has favorable tides for sailing to the Ocean. Some of these reasons also seemed to influence the Navy, which chose to locate its first base on the Pacific Coast there in 1854.

With nearly 115,000 inhabitants, Vallejo is the ninth largest city in the San Francisco Bay Area and is located in the northern periphery of the city region (see map). Vallejo is very ethnically diverse, which many citizens are proud of. Unlike many other American cities, the different neighborhoods are relatively unsegregated. The current ethnic composition of the city is remarkably balanced between the four main racial classifications: White (non-Hispanic) 28%, Black (non-Hispanic) 22%, Hispanic 21% and Asian 25% (US Census, 2010).

Vallejo is currently regarded as a working class, suburban bedroom community. With the exception of the amusement park, the city region is not very attractive to visit. Its negative stigma was exacerbated when the city become infamous for

<sup>&</sup>lt;sup>38</sup> Mariano Vallejo also named the neighboring town Benicia after his wife. He hoped the area would work together as a marriage; however, the towns of Benicia and Vallejo soon developed a bitter rivalry. Benicia was also the capital of California for a short period of time. Today, Benicia is more affluent than Vallejo.

going bankrupt<sup>39</sup>. This has led many in the area to believe that the city has always struggled; however, Vallejo has a fascinating economic past. For example, in the late XIX century many believed that Vallejo could become an important world metropolis. Also, for most of the XX century, Vallejo was regarded as a prosperous Navy town. The naval base and military shipyards closed in the mid 1990s, yet the economic impact was tempered by the fast growth of the housing sector in the Bay Area.

Since Vallejo's bankruptcy in 2008, its main challenge has been to adjust its budgets in order to pay the salaries of city employees—a very intricate political issue. The case of Vallejo has been watched by many other American cities that are struggling financially and considering filing for bankruptcy (Kelly, 2010). There are three significant reasons that explain how the city became entangled in its financial problems: 1) its geographic location, 2) the decisions of its leaders and 3) its evolution or path dependence related to the city region. See the chart below of the demographic growth of Vallejo compared to other places in the Bay Area.

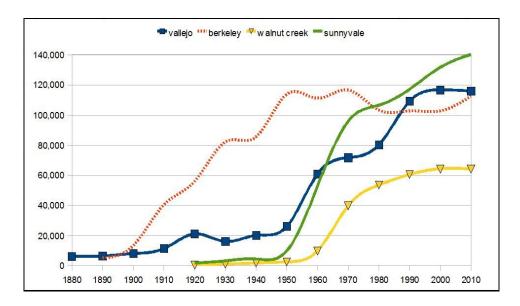


Figure 18 Population growth in selected cities of the Bay Area.

Berkeley is part of the core, Vallejo and a city in Silicon Valley (south city region) grew in the 1950s, and Walnut Creek is part of the most the recent districts in the recent districts in the eastern part (See previous map). Source: US Census, 2010

<sup>&</sup>lt;sup>39</sup> In the last three decades there have been roughly 40 cities, villages, or counties that have entered the bankruptcy process in the U.S. (Ruggeri, 2008)

### 9.7 Vallejo and the Four Key Points in its Local Economic Development

There are four points that are crucial for understanding the city of Vallejo. Each one is involved in strong economic and demographic growth. The four booms and subsequent busts of the economic development of the Vallejo are: 1) 1868: The train arrives, 2) 1941: WWII and the Navy town, 3) 1960: Extreme downtown redevelopment, and 4) Bay Area growth and 2008 bankruptcy.

## 9.7.1 The Train Arrives, 1868-1879

"The natural situation of Vallejo is unsurpassed on our coast for general commercial and manufacturing businesses. The vicinity of Vallejo is in its agricultural resources the richest part of the State" (Vallejo Chronicle, 1871, p.7). This 'real-estate description', which abound in American writing of the XIX century, is actually not an overstatement. Vallejo is the natural port of many agricultural lands (such as Napa Valley), and in this time period it was one of the fasting growing cities in terms of population and political representation. Its economic indicators, due to its exportation of agricultural products, were also very high. The local newspaper continually narrated that "The advantages of Vallejo have been recognized by capitalists, who have built and purchased a system of railroads to terminate here" (ibid.). In 1868 "Vallejo took on new life with the completion of the Sacramento-Vallejo line" (Marr, 1955), which notably was the fastest railroad route between the capital Sacramento and a Pacific harbor. Vallejo's cheaper harbor fees in comparison to the farther city of San Francisco made it quite competitive<sup>40</sup>. Import and exports soared through the new commercial hub. Many agricultural related products were exported to Europe, Asia and South America (Vallejo Chronicle, 1871). Because of its strong production and export of wheat, the largest flour mill on the Pacific Coast was built on Vallejo's waterfront.

The arrival of the railroad to Vallejo meant "the city's first real-estate boom" (Kern, 2004). It was also the catalyst by which the city was transformed into a commercial center. By that time, local leadership throughout the U.S. knew that the train was crucial for a city's survival and that no steamboat could compete with it<sup>41</sup>. The citizens of Vallejo understood that "In these days of rapid

<sup>&</sup>lt;sup>40</sup> At this time, San Francisco was the biggest city in California and Sacramento (today's capital) the second.

<sup>&</sup>lt;sup>41</sup> A familiar story of the time was the Midwest economic development war between prosperous Saint Louis and small Chicago. When Chicago leadership got the train first in 1852, it radically changed the growth of both cities. Chicago boomed while Saint Louis first

communication a position is almost, if not quite as necessary to maintain supremacy as a favorable commercial site" (Vallejo Chronicle, 1871: 56). Nevertheless, the competitive advantage of Vallejo as the most direct route to the Pacific from Sacramento only lasted a decade. When a competing railroad company opened a direct line from Fairfield to Benicia in 1879 (Niles, n.d.), "Vallejo found it self by-passed, sitting at the end of a branch line" (Marr, 1955). This was not so unexpected for Vallejo since it is surrounded by sedimentary high mountains, making other neighboring places better suited for a more direct railroad that offered similar access to the San Francisco Bay.

Mariano G. Vallejo might have not chosen this place if he had foreseen the importance of the railroad<sup>42</sup>, yet the loss of the premium railroad line was offset by the Department of Defense's beginning of construction of the naval base in 1878.

## 9.7.2 WWII and The Navy Town, 1939-1945

World War I gave an important boost to the city by establishing modern shipyards. Another crucial event came in 1927 when a bridge was built over the Carquinez Straits, rerouting highway 80 through Vallejo on its way to Oakland. By the late 30s the city's nickname was 'the City of Cash' because of the significant federal payroll at Mare Island Base. However, "no other event in Vallejo's history had a greater impact than World War II (...) Workers flocked to California to find employment at West Coast shipyards, and the result was unparalleled growth and change" (Kern, 2004, p. 101).

The city's population climbed swiftly during WWII. At its peak, the base employed nearly 50,000 workers. Some workers resided in Vallejo, but many came from other districts of the city region. Pictures of a nice uptown during the 1940s show crowded streets with cars, electric trams and pedestrians. Vallejo experienced a building boom following the end of WWII as new subdivisions grew on land formerly used for agricultural and farming<sup>43</sup>.

The shipyards built and repaired usually small boats, but some of the most legendary American battleships and even nuclear submarines were also assembled on the base. During the XX century, the base was the largest employer in the city. There were all types of engineers as well as "a wide"

stopped, then shrunk and since then has never recovered (Taylor, 1997).

<sup>&</sup>lt;sup>42</sup> The city lost its direct line from the inland locations to better places in the 1870s. The last train traveled Vallejo's railway in 2008.

<sup>&</sup>lt;sup>43</sup> This suburbanization or sprawl helped to create most of today's Western city regions.

variety of trades including riggers, shipfitters, draughtsmen, painters, welders, machinists, mechanics, pipefitters, sailmaker, electricians, pattern makers, and scores of other skilled trades" (Kern, 2004, p. 28). With such capital and knowledge Vallejo should have had a good platform for indigenous growth; however this did not occur. Furthermore, "branch line rail rates imposed upon some commodities shipped into and out of the area, water shortages and the proximity of large dominant government establishments [the naval base], have all been limiting factors on industrial growth" (Marr, 1955). Therefore, even though the base operated for well over a century (1854-1996), the city did not diversify its economy, and in fact, the base may have hampered the entrepreneurial dynamics of the city. This process has been acknowledged in other places by many, like Jacobs (1984), who said that "once a city, or any other settlement, comes to depend upon prolonged military work as an appreciable, normal part of its economic base, the military production must be maintained indefinitely or the economy shrinks" (ibid., p. 186).

The base later closed<sup>44</sup>; however, there was a key moment when the city's leaders joined forces in an attempt to jump-start entrepreneurship in the core of the city. Unfortunately, it turned into a prime example of how the dreams of planners and entrepreneurs can go wrong.

### 9.7.3 Downtown Extreme Redevelopment, 1957-1965

The Vallejo Master Plan states, "In these days of startling growth and rapid change, it is an absolute necessity that a policy setting out the pattern for future growth be adopted and followed. (...) 'Redevelopment' means clearance of all but the good structures and rebuilding the area" (Hahn-Wise and Associates Consulting, 1957, p. 18).

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<sup>&</sup>lt;sup>44</sup> After WWII, the base continued its operations. As an experienced local official (2010) expressed in an interview "everyone believed that the base would be there forever." However, during the last years of the Reagan administration an incident changed the fate of the base, and alas, the city. The battleship Missouri did not get the traditional invitation from the city of San Francisco. The unwritten message was that the citizens of the Bay Area did not welcome the military strategy of the government. This compounded the already strained relationship between most of the Bay Area and President Reagan, the former California Governor. Coincidentally, all the bases in the Bay Area were scheduled to be closed in the coming years. In an interview, a scholar explained that many citizens saw this as an economic punishment. All Navy operations were reduced and employees transferred. In 1996, Vallejo's Mare Island Base was closed, leaving behind a singularly vacant space in need of investment for land remediation.

Vallejo continued to experience significant growth during the 1950s, increasing from 26,038 to 60,877 inhabitants. There were new aspirations for the city, but the 100-year-old downtown by the waterfront had lost its charm. The master plan described the area as "characterized by extreme age with little maintenance, general dilapidation .... lack of adequate streets, [and] lack of recreation areas" (ibid.). As one resident commented, it was a place for the sailors' leisure activities, but not a place for respectable families of the city. A woman who lived in Vallejo during those years put it simple, "the downtown was really bad." The redevelopment area targeted nearly 125 acres (50 hectares), and when it took place, 600 buildings were demolished. Records show that around 550 families were relocated.

In 1956 the Vallejo Redevelopment Agency was established to manage the rehabilitation of the historic core of the city's downtown. The plan called for a modern pedestrian center to emerge, consisting of upscale stores, restaurants, and hotels, as well as a new post office, city hall, a civic auditorium, a library, a waterfront art exhibit and a beautiful marina, among other things (Marina Vista Project, 1959). "In 1959 Vallejo received the prestigious All-America City Award from Look magazine. Vallejo was selected in recognition of its successful annexation program and its ambitious downtown/waterfront redevelopment project" (Kern, 2004. p. 122).

The 1960 budget of \$7 million<sup>45</sup> soon became obsolete. Five years later, the project had doubled the original expectations, and the city started having difficulty obtaining funding. In 1965, after the demolition was complete, a ceremony consisting of 500 distinguished citizens (with the ability to fund) allowed each guest to participate in the groundbreaking ceremony for the new complex while the Navy band played. An official declared: "This is a community-wide event, and one of the most significant and important in the history of Vallejo" (Vallejo Times-Herald, 1965).

This pompous event marked the beginning of the end. The government buildings were constructed, but the buildings dependent on the private sector never materialized. This was partly due to the national trend that began building shopping centers at the outskirts of the cities and away from traditional downtowns. Today, Vallejo's waterfront remains practically empty, with the exception of the ferry terminal which connects Vallejo to San Francisco<sup>46</sup>. A

<sup>46</sup> Since the ferry service started in 1986, some of the empty space left by the redevelopment

<sup>&</sup>lt;sup>45</sup> Of this 50% would be paid by the future sales of land to businesses, 33% would come from a Federal grant (this came from a very popular national fund for urban renewal at the time), and the remaining 17% would mostly come from bonds sold to the public.

citizen who remembered the event narrated, "we all thought it was going to be marvelous with all the new buildings. I remember going to the dedication... (...) we're still waiting for something to happen" (Vallejo Times-Herald, 1998). By 2011, half century after the start of the redevelopment it seems the citizens will continue to wait.

## 9.7.4 Bay Area Growth and Local Bankruptcy, 1995-Today

From the 1990s until the mid-2000s there was radical economic and demographic growth in the surrounding cities of the Bay Area (Schafran, 2010). Due to the fact that housing prices became very high in the Bay Area, peripheral cities like Vallejo developed a booming housing sector. Therefore, even though the military base closed in 1996, housing growth during the same period cushioned the economic effects of the base closure.

It should be mentioned that while this financial boom seemed to assist Vallejo's situation, it also pushed it into the downward spiral of acquiring large debts. The debt "both federal and state/local, [has grown] rapidly over the last 30 years, shooting up in the 2000s" (Bardhan and Walker, 2010). In the case of Vallejo, its budget was already struggling in the mid 2000s; however, after the bust of the housing bubble and the following economic recession, Vallejo found itself in serious trouble. The city declared bankruptcy in May 2008 due to a combination of lower income revenues and increased expenditures.

Lower municipal income resulted from decreased property tax revenues, which declined after the bust. The high number of foreclosed homes contributed greatly to this lost revenue. According to a local official, the city's income fell from \$80 to \$60 million. Afterwards, once the national economy started shrinking, important local sales tax revenue also decreased. Meanwhile, expenditures rose quickly.

By the time of the bankruptcy and even today, around 75% of the local budget is used for salaries and benefits of the local police and firefighters (Greenhut, 2010). This figure is significantly above the national average (USBLS, 2010). A firemen representative claimed, "Yeah, we've got high salaries, but it's like us having to have two jobs." They argue that their social and family lives have suffered and that they have been treated very badly by the City they serve.

On the other hand, citizens see these public employees as an abusive interest group, or a 'good ol' boy network', that has taken advantage of a working-class community. Besides the large budget allocated to them, two other issues surrounding them have bred animosity. First, according to several sources, half of the firefighters or police officers do not live in Vallejo but in more upscale communities. Second, despite living elsewhere, this group has intervened as a powerful group in the political process by supporting City Council candidates favorable to their interests. This "symbiotic relationship" is quite acknowledged in city region (Oakland Tribune, 2010; San Francisco Chronicle, 2010).

"In 2008, Vallejo had a higher violent crime rate than any other comparable city in California" (San Francisco Chronicle, 2010). In 2010 alone, while much of the research was done, 16 residents were killed (Vallejo Times-Herald, 2010), numerous others were injured and other criminal and illegal activities continued. However, other reports point out that the narrative has been vastly exaggerated (Schussel, 2011).

Because of the bankruptcy, the city's citizens have suffered due to serious funding cuts at many levels. For example, since 2004 the school district has been bankrupt, which required the overburdened State of California to take over its schools. This situation has translated into even poorer local education<sup>47</sup>. Lastly, as in some other peripheral cities of the San Francisco city region, the potential prospects for many homeowners are very bleak.

In conclusion, the global housing bubble has had a serious effect on this community. The consequences of its decision to file for bankruptcy are still unknown. The effect on the city's evolution is also unclear. Finally, the path dependence of different interest groups and a lack of effective governance have trapped Vallejo in vicious circles.

This article points out the importance of the spatial location of Vallejo to its economic development. To sum up, it has been shown that place (including the surrounding mountains, water bodies and infrastructures) and, as well as

<sup>&</sup>lt;sup>47</sup> In contrast to most of Europe, in the United States school budgets (including teacher salaries) are highly correlated with home prices in the geographic area due to the fact that an important part of school funding comes from property taxes. This translates into lower quality education in poor districts. In a personal communication with the director of the county college, he explained that of the "12 major feeder high schools to Solano Community College, a recent test placed the three from Vallejo at the bottom of the 12."

history, matters<sup>48</sup>. There are also other issues affecting the path dependency of Vallejo that can not be discussed due to space constrains<sup>49</sup>.

## 9.8 Lessons from the Four Key Historical Points

Historical documentation and key informants point out that Vallejo has tried a wide variety of LED strategies over time. Such policies have ranged from attracting industry based on low-local taxation and subsidies, hiring top-notch consultants, 'buying-local' initiatives, promoting business incubators, teaching entrepreneurship classes at the community college, and several types of cultural and entertainment activities aiming at LED, et cetera. However, since the late XIX century, the entrepreneurial dynamics of Vallejo have remained low had a low profile when compared to other neighboring cities.

Take the railroadization stage in which the train got to Vallejo. The event was privately driven, and it certainly unleashed entrepreneurship in the city. However, the construction of the railway may not be considered entrepreneurship in the strict sense of Schumpeter's writings. Instead, the last stages of railroadization in California could be regarded as part of Schumpeter's equilibrated routine system (Andersen, 2002)<sup>50</sup>. Again with the presence of the naval base, entrepreneurship initiatives seemed to be put on the back burner for more than a century. Finally, the phase of downtown/waterfront redevelopment came at a time when business initiatives were moving out of downtowns. Finally, the last key moment discussed in this paper, the housing boom, should be considered something closer to speculation than entrepreneurship or innovation.

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<sup>&</sup>lt;sup>48</sup> However, both things are not definitive. The small city of Folsom, one hour east of Vallejo, blossomed when the company Intel opened a main research facility there. A place is not determinant. Likewise, the city of Fairfield, 10 miles inland and in the same county as Vallejo, is of similar size and also has a military base but has a tradition of good budgeting (Osborne and Gaebler, 1993, p.119-122). Even though Fairfield is also facing some economic problems now, they are not of the magnitude of Vallejo's.

<sup>&</sup>lt;sup>49</sup> Such as: 1) the effects on local taxation with the passage of California Prop. 13 in 1978 cut local budgets by half (Walker, 2010), 2) binding arbitration with public employee contracts which has been removed in a contested election on June 9, 2010, or 3) strong orientation towards 'The Experience Economy' (see European Planning Studies, 2009), in other words, focusing in selling memorable experiences instead of products and services.

<sup>&</sup>lt;sup>50</sup> Massive speculation related to the railroadization led to the Panic or Crash of 1873. The subsequent Long Depression put a temporary halt to regional and global commercial trade.

Below Vallejo's four key moments are depicted (in columns) and related to selected indicators of local economic development. For simplification purposes, the answers are 'yes', 'no', and 'mix' when dispute is too broad or blurry.

Table 16 Socioeconomic evolution of Vallejo's key moments and indicators

	Railroad arrival	Naval base	Downtown redevelopment	Housing bubble
Better place	yes	mix	no	no
Private driven	yes	no	mix	yes
Better entrepreneurial dynamics	no	no	mix	no
Dependent on CRSF*	yes	mix	no	yes
Better off with CRSF* innovation system?	yes	yes	no	yes

\*CRSF refers to City Region of San Francisco.

The first line (Better Place) questions whether a historical point has improved Vallejo's economic development. Overall, the arrival of the train made Vallejo a better place, in regards to the economy and attracting people. Whether the naval base made Vallejo a better place is disputed (next cell); it certainly brought much cash and economic development aspects, but it also constrained private initiative and its eventual closing greatly damaged Vallejo. In the case of the Downtown Redevelopment, it created debt and the project was unfinished, leading to an unimproved city. Regarding the recent housing boom and bust, the extreme economic commotion it brought has overall been damaging for the majority of the citizens.

The following two categories (Privately Driven and Better Entrepreneurial Dynamics) emphasize the clear distinction between privately driven initiatives and entrepreneurship (the definition of entrepreneurship has been discussed in Section 3). The illustration shows that both the train's arrival and the housing boom, while privately led, did not necessarily contribute to better entrepreneurial dynamics. A lesson is that with the exception of the Downtown Redevelopment, the key moments are highly dependent on the city region. Below, a hypothetical situation is set up in which Vallejo is more integrated in a city-region government (or more cohesive city-region governance). There it is hypothesized that Vallejo would have been better off with a more cohesive region.

All in all, LED and more specifically, entrepreneurship initiatives, with a few exceptions, have never really taken root in the city of Vallejo. Therefore, it seems necessary to explore other options and potential solutions for the establishment of a sustainable innovation process for the municipality. Such a system would not only be of to benefit certain parts of the city region or elites, but to improve the situation of a majority of its citizens. In addition, it is observed that entrepreneurship at the city-region level is quite complex specially because of its spatial inequalities. The ideas presented below could potentially advise a peripheral municipality facing such circumstances as Vallejo and/or a city region with places like Vallejo.

### 9.9 'City Region Innovation System Promotion'

This section introduces the concept of City Region Innovation System Promotion (CRISP). It is only in an exploratory way, and much research needs to be done. There are different notions of system of innovation (or innovation system). Some are focused at geographic levels (national and regional). Other approaches "focus narrowly on science-based innovation but others also take a broader range of experience-based innovation into account" (Johnson, Poulsen, Hansen and Lehmann, 2010). Innovation scholars point out that "there remains a bias among scholars and policy makers to consider innovation processes largely as aspects connected to formal processes of R&D, especially in the science based industries" (Jensen, Johnson, Lorenz and Lundvall, 2007). Meanwhile, the popular media also equates innovation with high technology.

The systems of innovation literature encompasses the importance given to actors and networks, and in this article it gives special consideration to the cityregion level. Based on the struggling economic evolution of Vallejo (as an example of the dynamics at play in many other city regions), this article points out the need for an alternative scenario for city regions in Western countries. The term 'City Region Innovation System' could have been used; however, taking into consideration the life of so many "ordinary cities" (Robinson, 2002) and the increasing socioeconomic heterogeneousness in city regions, the term 'innovation system promotion' is favored.

The concept of CRISP includes two main ideas that complement each other in order to create a better place. First, is the recognition that the life of cities (or districts that constitute a city region) depend on external factors many of which are related to their particular regions. This awareness is necessary because many

citizens and much of the leadership do not see the different districts of the city region as interdependent. Second, once the parts of the city region realize they form an organism, there should be active coordination among the different members (Luke, Ventriss, Reed and Reed, 1988). In a note of caution, an important aspect for the development of a fertile city-region ecosystem is to recognize potential conflicts with the elite<sup>51</sup> (E.g.: Robinson, 2002; Rodriguez-Pose, 2008; Florida, 2010; Walker, 2010; Lundvall, 2010b).

Potential solutions for most cities do not come from increasing or decreasing the size of their budgets. Likewise, solutions will not come from implementing local entrepreneurship policy, building capacity only within the local limits, or from competing against other municipalities. Instead, more likely solutions will come from skillfully recognizing their limitations -external dependence- and establishing active coordination or fluent dialogue within: a) their communities, b) communities with similar challenges, and c) the elites of the city regions. Elites must recognize that a more cohesive city-region governance (or government), while affecting the status quo, can create wider prosperity.

A more united city region could benefit the citizens of the Bay Area in many ways. In particular, it could also reduce costs, especially of the police and fire departments; Vallejo and many other cities allocate over ¾ of their General Fund<sup>52</sup> to public safety. This paper also supports the idea that having a city region with more evenly distributed resources (e.g. education, health care) could also help innovation by empowering entrepreneurs in the broad sense. After all, Silicon Valley emerged only after high numbers of immigrants in the 1950s doubled the region's population (see figure 4<sup>53</sup>) and income inequality in the US was at its lowest point (Klein, 2011). Not until inequality reached alarming levels, did Silicon Valley face crucial challenges.

## 9.10 Perspectives

Concerning the current economic recession, most researchers and policy makers have focused at the national level (e.g. discussions about Ireland, but never the

<sup>51</sup> The elites are referred to as the richest 1% of the population (Beinhart, 2011), which in the case of the San Francisco city region (with 7 million) the elite would represent no more than 50,000 well-organized individuals.

<sup>&</sup>lt;sup>52</sup> The General Fund should not be confused with the Total city budget which also includes capital improvement funds, Redevelopment Agency funds, Landscape Maintenance District funds, and more - none of which are used to pay public safety contracts.

<sup>53</sup> In the 1950s San Jose, a.k.a. the "Capital of Silicon Valley," went from fewer than 100,000 inhabitants to more than 200,000 (Moffat, 1996).

Dublin city region). Yet for sustainable economic development, more attention should be paid at the city-region level, which plays a key role in economic life.

The evolution of the city of Vallejo has four key moments in its history. These key moments were mainly driven by the private sector; however, not all can be considered entrepreneurship as defined in section 3. This article takes into consideration the current critical situation of Vallejo and the path dependence of the city. It has been argued that in order to understand the economic geography of Vallejo, it must be considered as one of the heterogeneous, but interdependent, districts of the San Francisco city region.

Different districts of the city region can have their own booms and busts, and the local leadership may or may not have had a hand in bringing them about. For example, while they can decide to do a redevelopment project, they can not decide when a trend in city- region sprawl will take off or the federal government will open or close subsidized projects.

The paper calls on LED research to pay more attention to the city-region level and partially supports the 'new regionalism' or 'progressive regionalism' literature. In the San Francisco city region, 'community-based' development is unequal across cities causing places with fewer resources to be in a much worse position. Such inequitable growth is unsustainable. This article suggests putting in place more consolidated city-region policies in such areas as industry and infrastructure. Equally or more importantly, is the promotion of policies aiming at a more even distribution of resources for education, justice, health care and other basic services (e.g. police, firefighters, parks). This article supports socioeconomic innovation policy, or innovation in the 'broad' sense, based on a more unified criteria in order to transform city regions into better places.

LED faces the eternal dilemmas rooted in political orientation. Many consultants and academics present extremely different proposals. However, in the end most of them call for competition among cities. This competition revolves around mainstream entrepreneurship. It is suggested that the concept of entrepreneurship has been misunderstood or manipulated. This article puts forward the concept of entrepreneurship inspired by Schumpeter's writings in which entrepreneurial dynamics are led by innovative individuals (regardless of their occupation) who are rarely motivated by pecuniary profit. These entrepreneurs may benefit society by sometimes breaking the economic equilibrium. This idea of entrepreneurship, different from the mainstream one, raises interesting questions for LED and entrepreneurship policy.

In general, city regions can learn from the case of the San Francisco city region that creating artificial barriers within the city region can choke economic life. This article suggests that a struggling city like Vallejo could have renewed entrepreneurial dynamics and economic development but only after moving towards the concept of City Region of Innovation System Promotion(i.e. by improving city-region governance with the vision of creating innovation in the 'broad' sense). This process is needed in order to escape from its lock-in situation and diversify its economy. Without such bold changes, Vallejo and other ordinary cities could end up like many places in the third world, where a few live in affluence while the vast majority of citizens live and die in misery.

**PART IV - CONCLUSION** 

### **Chapter 10. Discussion**

This thesis includes four articles --two case studies (Article 1 and Article 4), a review paper (Article 2) and one empirical paper based on quantitative data (Article 3). Each has presented some main findings. The findings in the articles along with the general theoretical framework and the discussion put forth in the previous chapter makes it possible to answer the research questions and come up with some conclusions about entrepreneurship and local economic development.

#### 10.1 Research Answers

Section 2.1 presented the research question and sub questions of this thesis. I will start by answering the sub questions and then answer the main question.

a. How can the concept of the experience economy improve the entrepreneurial dynamics and local economic development (of a city like Frederikshavn)?

The examination of this question came as a prerequisite for my Ph.D. funding. The ideas contained in the experience economy can enrich certain disciplines such as architecture, business marketing, and city planning among others. However, since I started my Ph.D., and likely influenced by the economic cycles (see section 10.2) which affected public and private expenditures, more skepticism has developed towards the experience economy. Regarding the field of economic development, Danish research has reached a consensus: in general, the experience economy should not be a central focus of economic policy, as it has been (and still is) in several municipal and regional governments in Denmark. Some recent quotes about TEE from researchers quoted in Article 2 are:

- "[it] may be a very fragile strategy for the majority of cities and municipalities outside the main growth centres and classic tourist destinations" (Smidt-Jensen, Skytt, and Winther, 2009).
- "experience economy [projects] only survive as long as the hardworking public servants feed them money and push them forward" (Anderssson, 2009).
- "[our paper] does severely question the limits of the [creative class/experience economy theses] application as a development tool" (Sørensen, Fuglsang and Sundbo, 2010).

• "[in Scandinavian local development] it does not make any sense trying to measure [the experience economy]" (Bille, 2010a).

• "[In the region of North Denmark] the experience economy does not represent any high road to development" (Lorentzen, 2010).

In the case of Frederikshavn, my research also suggests that overall the focus on the experience economy per se, has not been an effective strategy for its entrepreneurial dynamics or local economic development. Some cultural events like the Lighting Festival, the Tordenskiold Festival or the leisure attraction of the artificial Palm Beach have had several positive outcomes. The experience economy may have worked as an umbrella for many successful activities.

The Danish national and regional governments now share the responsibility for promoting TEE based on its touted economic development benefits. Because TEE is a concept that can hardly be measured or evaluated, it is questionable whether or not LED policy should have focused so heavily on it. The article has shown a case of local economic policy uncritically implementing a trendy idea. I propose that such projects should be named cultural activities, special local events and/or leisure attractions instead of invoking the term of the experience economy. The name 'experience economy' should be avoided as it is extremely fuzzy and has created much confusion among society, academics and local policy makers. Many resources have been wasted as some municipalities have uncritically implemented this unorthodox idea. That said the experience economy strategy should be understood as one strategy among several initiatives attempting to tackle changing times. This subject will be further discussed in the final remarks.

### b. How does a rural/urban environment affect the entrepreneurs?

As suggested by a multitude of scholars, the urban and the rural (or core and periphery) environments have an important influence on entrepreneurial dynamics. The capacity measured by available resources as well as institutions are different. This has led much research to conclude that urban and rural people, regardless of their status as employees or entrepreneurs, have different entrepreneurial traits (i.e. people in cities are in general more creative). Other researchers have suggested that the difference in entrepreneurial dynamic performance was an automatic outcome of the environment, thus concluding that entrepreneurs were not that different from the rest of the people. The research presented in this thesis, however, contradicts both ideas. While urban and rural entrepreneurs have some key differences regarding individual creativity and social network patterns, in general, they are not that different

from each other, particularly when compared with the rest of the population. To sum up, the main differences concerning entrepreneurial traits are between entrepreneurs and non-entrepreneurs regardless of their geographical location. The findings in Article 3 are in tune with another article by researchers from the United States and question many quasi-dogmas about urban and rural entrepreneurship. Furthermore, the other articles included in this thesis also suggest the similitude of entrepreneurs regardless of their geography.

To recap, Article 3 and my complementary research showed that entrepreneurs have (or develop) special entrepreneurial traits, differentiating them from nonentrepreneurs. This is regardless of being located in an urban or rural area (core or periphery). Many have suggested than the economies of cities are different because of the actions of its exceptional entrepreneurs. However, the results of Article 3 suggest that while entrepreneurs in general are different from the rest of the population, being located in an urban area does not make the entrepreneur that exceptional (or different from rural ones). Therefore, it is suggested that the different entrepreneurial dynamics in urban and rural areas, respectively, are influenced by factors other than entrepreneurship (entrepreneurship that outside the paper I would define as entrepreneurship in the narrow sense). Furthermore, Article 3 confirms that individual creativity and the social network are important for entrepreneurship as suggested in the literature. However, leaving out the environment could lead to insignificant or misleading results, impacting entrepreneurship policy. By combining the person and the environment, common entrepreneurship beliefs can be questioned and entrepreneurship theory benefited.

c. How can a struggling urban municipality (like Vallejo in the San Francisco Bay Area) improve its economic development?

This question and its answer is a continuation of the previous one. Much research claims that urban areas are the ideal place for thriving entrepreneurial dynamics. However, after closely examining diverse literature and based on my own findings as presented in Article 4 from one of the (if not the) most innovative city regions in the world, I began to question these claims. Urban areas, as well as rural ones, are very heterogeneous. Therefore, despite what much literature suggests, there may be an exaggeration (or false dichotomy) between urban and rural (or core and periphery) places from an entrepreneurship and economic development point of view. In order to find the best potential solutions for economic development there should not be two different approaches to entrepreneurship and economic development in urban and rural places.

In Article 4 I have come up with a possible solution for the city of Vallejo, and other similar cities, called the concept of the City Region Innovation System Promotion. Instead of targeting the particular locality of Vallejo, I focus on its connection to the entire region. In short, leadership throughout the city region must become aware of the necessity and benefits of establishing a system of innovation and entrepreneurship in a broad sense. This idea is still in an embryonic stage, and this thesis only presents the concept of City Region Innovation System Promotion and recognizes the need for much further research.

• Main question: *How do entrepreneurial dynamics evolve in peripheral cities?* 

Path dependence matters, but local entrepreneurship and the economy evolve in very different ways. Both urban and rural places need to acknowledge the relevant actors, networks and institutions (formal and informal) at play in their geographic location. Also, in order to understand a place's economic geography, 'capacity' and 'will' are relevant within the region (this also may refer to a city region, or relatively homogeneous province or country). Framing who the "relevant" actors and networks are makes it a challenge to analyze this whole process is.

For example, there seems to be much focus on some actors like the high-tech startups, and every country has policies towards them. In contrast, for instance, the concept of "intrapreneurship policy" does not exist in the public policy arena. This does not mean that there is not will to help existing companies; there is much support for cluster policies, for example, but apparently the focus is on firms and not on the needs and motivation of intrapreneurs.

The main research question begs a following-up question that is: 'How can peripheral cities improve their entrepreneurship and economic development?' I have confirmed the need for engaging in a systemic approach related to the concept of innovation system in the broad sense, (a term used by innovation scholars) or a basic system as some local economic development scholars recommend. Thus, both communities of scholars, even if they have limited communication between them, suggest the idea of a system among the main actors and networks, which takes into consideration the environment (context or institutions). This system promotion is a vague concept that is continually evolving; however, it may be the best way of tackling a complex world.

Upon answering these questions there are two subjects that require more detailed explanations. The first one is the impact of the economic cycle on Western countries, and the second one is the concept of City Region Innovation System Promotion that I have already referred to.

### 10.2 "2008-Today" Recession

Without acknowledging the effects of the recession, it is hard to understand this thesis. Thus, this section contextualizes the economic situation before discussing the thesis's main findings.

The main subject in this thesis is economic development, and it is necessary to recognize the great influence of the current (or recent) recession. This economic situation, popularly known as the global economic crisis, started being felt by some sectors in 2006 (Harvey, 2009) and has been linked to the 2008-2009 financial crisis liii. Some innovation scholars have defined these events as a shift to a new techno-economic paradigm (Perez, 2010), and some economic geographers have referred to it as a change of spatial fix (Florida, 2010). This state of affairs has affected the central concepts of this Ph.D. project, namely entrepreneurship and local economic development. Entrepreneurship rates have been affected due to a lack of financial availability liv. Similarly, local economic development, intimately connected to the national economy, has also suffered. The struggle at the local level is exemplified by many local governments as shown in Article 4. Finally, the concept of the experience economy in Denmark has seen a significant drop in the supply and demand of "cool experiences" as public and private organizations seriously questioned whether the experience economy was the way forward (Article 2). See Appendix 3 showing a graph of Denmark's GDP growth over the last 20 years and Appendix 4 on Jyske Bank.

The funding and framing of my project was organized in early 2007 when most Western countries (including Denmark) had robust GDP growth, accompanied by a strong real estate market. When I started my Ph.D. in April 2008, real-estate prices had begun flattening out, consumption expenditures were declining and GDP growth, in the majority of the Western countries, was decreasing. Six months after I started Lehman Brothers collapsed officially starting the global financial crisis, which many economists consider to be the worst financial crisis since the Great Depression of the 1930s. In 2011Western economies are still fragile and most households as well as local, regional and national governments are highly cautious. There are currently rumors of a double dip recession.

Danish media has recently reported that "Denmark's economy unexpectedly contracted for a second quarter, joining bail-out-reliant Portugal as the only other European nation in a recession. [Denmark] is struggling after emerging from a recession in 2009 amid declining employment, a slump in real estate and widening deficits" (Wienberg, 2011). While the country experienced high growth during the 1990s, some industrial sectors and regions are now facing some challenges (See Appendix 3). For Frederikshavn in particular, the broader economic cycles have been highly influential. The fat years propelled many projects such as the Tordenskjold Festival (1999), Palm Beach (2004) and Lighting Festival (2004). Likewise, in 2005 construction of Arena Nord was completed, and in 2008 construction began on Palm City, a residential development based on "experience" activities 1. The lean years have put to a halt to Palm City and have cancelled/postponed the 2010 Lighting Festival as explained in Article 1.

The case of the bankrupt city of Vallejo has attracted much media attention. Recently articles have been featured in newspapers such as the Financial Times, Wall Street Journal and New York Times, among many others. Much attention has been drawn to Vallejo's case because it is the largest city in the United States to have filed for bankruptcy in the last decades.

Conversely, it is important to keep the bigger picture in mind. Overall, most people, including citizens from Frederikshavn and Vallejo, have considerably higher living standards than several centuries or even several decades ago. During the XX century Denmark has achieved not only economic growth but economic development for the vast majority of its citizens. This has been attributed to its extensive welfare system and national system of innovation (Christensen, Gregersen, Johnson, Lundvall, and Tomlinson, 2008). I believe that because of these systems (the Scandinavian welfare system -or social solidarity- and the national system of innovation) Danish citizens have so far been able to better navigate the turbulent waters of the crisis.

This section has served to contextualize the recent and current economic situation within the central themes in this thesis<sup>lvi</sup>.

# 10.3 Systemic Approach and CRISP

LED policy suggestions are very broad, and sometimes they even contradict themselves because of different schools of thought or political agendas. Strangely enough, many, at the end of the road, argue in favor of competition

against other municipalities. Another strand of LED experts (see section 4.2.1), however, argue for a systemic approach, suggesting increased collaboration between the key actors in the municipalities and regions. Innovation scholars in the field of innovation (in the broad sense) have proposed similar suggestions as LED researchers based on a systemic approach. Thus, based on the literature and my studies, I have proposed the concept of City Region Innovation System Promotion (CRISP) for Vallejo.

In Article 4 I attempted to explain CRISP. Unfortunately, due to space and other format restrictions of the journal, I was not able to give a proper definition of it. I briefly mention that CRISP is a combination of three concepts: a) City Region, arguably the engines of the economy (See Article 4, section 2), b) System of Innovation, not only concerned with high-tech innovation (See section 4.2.1 and Article 4, section 8) and c) "system promotion", which, as explained in the introduction of Article 4, was first created as a suggestion for what "developing countries could do to effectively develop their economies" (Lundvall, Johnson, Andersen, and Dalum, 2002b). By putting these three concepts together, I want to convey the idea that due to the increasing socioeconomic heterogeneity of the city region of the San Francisco Bay Area, the systems of innovation (more precisely system promotion) could prove to be useful for achieving more efficient and sustainable economic development. Currently, when talking about the development of Vallejo, much LED literature from academics and practitioners would suggest competing against other cities and would disregard the idea of a regional development effort. The results of my studies suggest that these types of competition based initiatives would fall short without the promotion of a more cohesive city region.

My arguments suggest that an effective (sustainable and fair) economic development is mainly achieved by proper entrepreneurial dynamics empowered by entrepreneurship in the broad sense. A prerequisite for achieving this is having the right 'capacity' of the location and 'will' of most of the citizens and leadership. The elements of this model (represented in the above diagram) better fit a scenario where something like CRISP exists than a municipality relatively isolated from other cities within a region embarked on the principles of entrepreneurship in the narrowest sense. For example, the lack of collaboration and excessive focus on for-profit entrepreneurship is widespread among city regions and regions, contributing to ineffective economic development. The concept of City Region Innovation System Promotion (CRISP) I present here is still developing, and the need for much further research on this topic is necessary.

CRISP and other systemic approaches have several critiques as I have already referred to in section 4.2.1. There are two more critiques I would like to add here. First, too much focus on the main actors can create inefficiencies. Take for example the case of housing, typically the household's highest expenditure, thus having a high capacity to affect the entrepreneurial dynamics and the whole economy. The key actors in the housing market are banks, land owners, home owners, home sellers and buyers, and real estate companies. From the public sector taxation and regulation agencies as well as city planners also affect housing. All of these actors have interests that could lead to the tacit support of a housing bubble, which are ultimately detrimental to the majority of citizens. During the rise of the housing bubble, in particular by the end, minority groups across Western countries asked their governments for more regulation to mitigate housing prices, but they were mainly ignored. Therefore, caution should be used to carefully frame the number and perspectives of the "main"

A second critique of the systemic approach is that if all institutions related to education, healthcare, transportation, business laws, housing justice, etc. must work properly prior to jumpstarting entrepreneurial dynamics, then by the time every nuance were in place, the benefits entrepreneurial dynamics were supposed to achieve would seem futile. That is to say, if everything were fine in the society, why would we need or want to change it? My argument is that these components cannot evolve without proper entrepreneurial dynamics guided by entrepreneurship in the broad sense.

actors in the different discussions relevant to entrepreneurial dynamics lvii.

This chapter has drawn upon previous sections and has given more detail about how entrepreneurship in the broad sense can lead to an effective local economic development. The next chapter offers some perspectives.

#### 10.4 Final Remarks

When I started my Ph.D. studies, I aspired to coming up with some policy recommendations for cities and regions. This is an ambitious goal which has probably been the dream of every social scientist at one point in her/his life. Thus, in each of the four articles and the previous sections I have striven to include some conclusions that could be useful for policy making. Some of the ideas have only just been introduced, and all of them require further research.

Yet, I must not forget the sage advice of two economists. First, that "no matter what [is] proposed, there [is] something wrong with every policy" (Roberts,

2002 p. 134). Second, that even though sometimes as humans we "are absolutely convinced that we understand the way the world works (...) The

world is simply far too complex to understand in that way" (Harford, 2011b).

Tim Harford also explains that it is through the process of trial and error, instead of meticulous planning, that much innovation is done in the private sector. He suggests that even with the limitations it represents, socioeconomic policy may also benefit from more trial and error (Harford, 2011a; Harford, 2011b). Perhaps Frederikshavn can be seen as a paradigm of a trial-and-error lab in which various strategies are being boldly tested. It is my hope that municipalities like Frederikshavn successfully reorient their experience economy strategy for better prospects of local economic development given that much recent research has suggested that the excessive focus on the experience economy may have been an error for a municipality like Frederikshavn. At the same time, the project aiming for '100% renewable energy' may become a success, turning Frederikshavn into a model town. I argue that the different outcomes of TEE projects compared to the renewable energy project were very hard to foresee at their outset. If, for example, my project analyzing the impact of TEE would have started a decade ago and finished in 2007, it would have been accompanied by strong GDP growth and a considerable increase in consumer confidence in Denmark. Thus, my results would probably have been different. However, by starting in 2008 economic shrinkage, the bursting of the housing bubble and a fall in confidence, among other factors outside the control of the city, have ultimately determined the entrepreneurial and local development dynamics related to Frederikshavn's experience economy projects. Similarly, nobody could have predicted the so-called 2011 Arab Spring that may have contributed to higher oil prices, thus influencing the successful prospects of the '100% renewable energy' project. Likewise, if a gigantic oil reserve is found, the price of a barrel of oil will fall, again affecting the energy project. To sum up, planning economic development projects is quite complex,

Cities with a will to achieve effective economic development may improve their possibilities by considering a systemic approach. Main actors and networks in the key socioeconomic fields must be carefully looked at, and their institutions and capacity acknowledged. Thus, cities should avoid implementing projects uncritically. However, researchers and practitioners should bear in mind that trial and error is not only inevitable, but may be desirable. As the leaders in Frederikshavn suggested, in times of trouble "it is better to do something, than nothing". From an evolutionary perspective, society and the economy also have

and the relative success or failure of them should be analyzed within this

context.

more possibilities of surviving if communities are empowered to try different strategies rather than remaining static.

Related to the periphery-versus-core debate discussed in this thesis, a colleague in my department, planning Prof. Jørgen Møller, has been saying for decades that there should be a real discussion about urban and rural areas in Denmark (and probably in the entire world). In a personal conversation he argued that there are certain questions to tackle: "Should we give villages all the resources they ask for? Or should we abandon and bulldoze them?" These types of questions are both interesting and important. Urbanists, regional economists, regional politicians and economic geographers (including myself) have contributed to raising tensions between urban and rural areas. Upon pondering my results at the end of my Ph.D. project, I began to question whether academic and policy makers have some sort of 'core versus periphery' fetish and whether the differences seen between urban and rural areas are really so important or merely the result of a false social construct. In my mind, a more urgent question is whether current policies are providing appropriate possibilities of expanding entrepreneurial dynamics (in the broad sense), regardless of urban or rural areas.

Upon discussing improving entrepreneurial dynamics, one of the questions that arises is: How can intrapreneurs be reached by policy makers? Some would point out that since intrapreneurship occurs strictly within the firms, there is no need for public actors to interfere. Furthermore, others from a neoclassical background would most likely argue that the public sector should only be concerned with things like infrastructure, safety, et cetera, and that the best thing for companies is to lower their taxes. However, because I am arguing for efficient and sustainable economic development, I believe that one of the best ways to increase its possibilities is by supporting intrapreneurs and potential intrapreneurs— not necessarily only the firm. Given the resources and scope of my thesis, I cannot expand into arguments on how to support intrapreneurs; however, direct observations during my studies may offer some hints. When meeting creative individuals across the United States and Denmark one thing has become clear: Americans tend to favor stability in their organizations, more readily accept hierarchical organizations and reject changes that could lead to socioeconomic innovation. One reason for this may be that they are more fearful of losing their jobs and being cast out into American unemployment, which many times includes losing healthcare benefits for themselves and their families. Of course, Danes do not want to lose their jobs, but the 'flexicurity' model (Jørgensen and Madsen, 2007; Jørgensen and Schulze, 2011), making it easy for firms to fire employees and giving decent unemployment guidance and benefits along with universal healthcare, makes them less afraid of this

eventuality. Given these scenarios, in general, I see fewer barriers for intrapreneurship in Denmark than in the United States. Similarly, I have also observed an anti-innovation effect on people who have lost labor mobility when their mortgages became higher than the properties were worth, hindering their ability to sell their homes. These observations have been distilled from my research, but I have not particularly focused on how these factors may affect entrepreneurship in the broad sense. Thus, more research is needed on how factors like the 'flexicurity' model, universal healthcare and the prevalence of renting versus buying a home could encourage intrapreneurship, and subsequently improve entrepreneurial dynamics.

In regards to the methodological approach chosen, using a mixed-methods research approach has been a challenge. Fortunately, there is a growing community of researchers using mixed-method research. I enjoyed learning more about both approaches and going back and forth among methodologies. I hope my future research will be able to better combine both methodologies. I also suggest social science research groups involved in interdisciplinary subject areas employ a mixed-methods approach to better tackle complex challenges.

Despite the population growth of the last decades, overall, the world's economic development has improved the lives of the majority of human beings. At the same time, there are many challenges affecting greater and greater numbers of people that can damage socioeconomic development perspectives. Some examples include increased wealth and political inequality, which have brought increased social and economic hardships to many people and significant sustainable economic development challenges. As a social scientist, such topics are relevant and must be investigated for the betterment of society. These worthy topics will be left for further research.

### **Endnotes**

These Endnotes come from Part I, II and IV of the Thesis. Part III (the articles) have their own footnotes.

### Chapter 1

- I. Conference papers include: a) "How Does the Experience Economy Affect Entrepreneurial Dynamics?" presented at the Regional Studies Association Conference in Prague, 2008; b) "Local Entrepreneurship Policy: The Festival of Lights of Frederikshavn" presented at the annual meeting of the American Association of Geographers, in Las Vegas, USA 2009; c) "How Important is Geography for the Entrepreneurial Profile?" Presented at the Winter DRUID Conference at Rebild (Denmark), and the annual meeting of the Association of American Geographers in Washington D.C., USA April 2010; d) "Evolution of the concept of the Experience Economy in Denmark" presented at the Regional Studies Workshop in Aalborg "The experience turn in local development and planning", and e) Earlier versions of Article 4 about Vallejo were presented at the 'Just Metropolis' conference in U.C. Berkeley, and the DRUID Conference 2011.
- <sup>II.</sup> These places include Denmark, the US and Germany. I also made a special presentation to the Culture Committee of the Danish Parliament.
- The Ph.D. course at Utrecht University required a paper. I titled it: "City Population Growth and Economic Growth: Acknowledging Dynamic and Inclusive Networks". I learned about the importance of urbanization in economic history and economic geography.

### Chapter 2

- For example, initially my project was framed around the idea that Frederikshavn had a problem: a decreasing economy and demography. Later in the process, I began questioning myself. 1999 and 2009 were bad years for the municipality, especially when compared the city's peak as an industrial city in the mid-1970s. However, I began to ask myself: are current times worse than 70 years ago in the early 1940s when the town was an occupied territory under Hitler? Going back further in history, was it worse off than in 1860 when the train had not even arrived to the area? Similarly, is it really a problem that young people go a couple of hours away from their hometown to study at universities, find jobs/ create new companies and overall find a satisfying family life?
- V. As explained in the Introduction, the name of the project is "Entreprenørskab, Oplevelsesøkonomi og Regional Udvikling" (Entrepreneurship, Experience Economy and Regional Development). The research required me to focus on all three fields as well as use some examples from the municipality of Frederikshavn.
- VI. Driving distance from Skagen (the third largest town in Frederikshavn) to Copenhagen according to Google maps.
  - VII. In an exaggerated example, I could have concluded that the best thing for the

inhabitants of Frederikshavn was to relocate to bigger cities as soon as possible.

Admittedly, on a few occasions, I have experienced limitations doing interviews in Denmark since neither the Danes nor I are native-English speakers. The vast majority of my interviews in Denmark were done in English without any problems. Sometimes, however, the interviewees would respond to a question in Danish. In these cases I could usually understand their responses and could even ask a few clarifying questions in Danish. At other times, if meanings were unclear due to the Danish language, by listening to my digital recording, I was able to better grasp the Danish meaning. Overall, doing the interviews in English with the Danes was not a limitation. Perhaps in 5% of the interviews English may have been a challenge for the interviewees. Positive aspects of doing the interviews in English were that conversations were slower than usual (which was good for taking better notes and allowed me to think of follow-up questions), and the interviewees stuck to the topic instead of going off on tangents, which I found people to do when speaking in their native language.

IX. Recently, there have been calls to have the "concept" of the National Systems of Innovation developed into a more "theory-like" idea. Thus far, most agree it is not yet a theory, but a concept (See Lundvall, 2010a, p. 326).

X. During the second semester of my Ph.D. studies, I created a 40 page statistical report titled "Economic and Demographic Trends in Frederikshavn" (not included in the thesis) for the purpose of giving it to the steering committee and better framing my research. I studied trends related to economic (e.g. employment, sales, profits, income), social (e.g. education, leisure) and demographic (e.g. age, gender, immigration flows) patterns. I broadened my research so it could include not only Frederikshavn, but other similar towns and bigger cities.

XI. For example, Lorentzen et al. (2007) concluded: "Within only a five-year period Frederikshavn has been able to brand itself into the minds of most Scandinavians as an attractive and pleasant place to live and to visit". I confirmed this point of view in interviews with several project managers from different parts of the local government. While an improved image may have been shaped "in the minds of most Scandinavians", the numbers in terms of visits by tourists suggested the opposite. For example, unpublished numbers provided by Frederikshavn tourist offices showed that there has been a steady and significant decrease of Scandinavian tourists to Frederikshavn. Furthermore, in order to argue that Frederikshavn was recently much better off than in the past, qualitative research pointed out the violent reputation of the town as reported by the media in previous decades. Yet, when carefully examining criminal records available at the police station library, Frederikshavn's crime statistics are not significantly different from other similar towns in the same time periods

XII. Again, simple quantitative research is important for assessing validity. An article in the not-for-profit Vallejo Independent Bulletin explained: "There have been numerous articles in newspapers and TV suggesting that crime in Vallejo is spiraling out of control. It is implied that there is a direct relationship between the crime rates and the significant decline in the number of Vallejo Police. However, (..) the violent

crime rates that the Vallejo Police Department reported to the FBI have declined since 2005" (Schussel, 2011).

XIII. Frederikshavn city went from 24,680 inhabitants in the year 2000, to 23,331 in 2010 (Danmark Statistiks, 2010). Vallejo went from 116,760 to 115,942 inhabitants during the same period (United States Census Bureau, 2010). After losing over 5% of its population in the last decade, Frederikshavn can hardly be called "an attractive place" especially when comparing it to bigger cities in Denmark that have grown over the same time period. Meanwhile, the loss of 0,7% of Vallejo's population does not seem to put it in such a crisis as many suggested.

XIV. I believe most researchers do this even though they may not describe it as grounded theory.

XV. A rising community of scholars is defending mixed method research. See for example Journal of Mixed Methods Research

XVI. When referring to the European Union, the examples I choose from and the results I find are more related to Western Europe or the EU-15 (Austria, Belgium, Finland, Greece, Luxembourg, Denmark, Spain, Netherlands, Germany, France, Portugal, Ireland, Italy, Sweden, United Kingdom) because up until 2004 these EU countries shared not only a geography but more similar socioeconomic standards than the current EU-27. For example, in many former Soviet Union countries some formal and informal institutions are still different.

XVII. Both projects are deeply dependent on local and national support. If the aforementioned projects become reality, clearly the bet on renewable energy, instead of the experience economy, will prove to be more successful in order to create an alternative Frederikshavn. It could potentially give some useful clues to future project management in local development.

XVIII. The argument for not categorizing it as a normal peripheral city but as an extreme case, can be made; however, the decision to declare bankruptcy, while flashy for the media, was more of a political decision. That said, there are many other places other than Vallejo, from inner cities to rural towns, in both the United States and the European Union which have been hurt to an equal or greater extent by the current economic cycle.

### Chapter 3

The field of entrepreneurship is a very broad subject. In the academic arena alone, the academic database Google Scholar shows results of almost half a million academic publications on the subject.

XX. This definition, which Schumpeter uses a few times, may have influenced Freeman and Lundvall to describe "innovation systems in the broad and narrow sense". In turn, I have been influenced to use the term entrepreneurship in the broad and narrow sense.

XXI. To me entrepreneurial dynamics refer to "broad entrepreneurship" or "entrepreneurship in the broad sense". I use both terms interchangeably. "Broad entrepreneurship" has been used by some researchers who are paying special attention

to cultural and art veins of research (Steyaert, 2000; Meisiek and Haefliger, 2011;). This is not my particular view. By chance, my research perhaps coincides with some Russian researchers who deal with the private sector after Perestroika. They could see in their concept of "entrepreneurship in the broad sense, the result and the cause of any society's progress" (Ageev and Kuzin, 1991 italics aggregated). They found a type of entrepreneurship that "at the same time [could ensure] socially acceptable conditions of existence for that segment of society that needs social protection" (Zaslavskaia, 1996).

XXII. In his original writings in German, Schumpeter used the word entwicklung, which can mean evolution and development.

XXIII. The term 'national system of innovation' without specifying "in the broad sense" became widely known due to Lundvall (1988 and 2010b[1992]). Lundvall (2007) also explains: "The handier 'innovation system' appears for the first time in Lundvall (1985) but without the adjective national."

XXIV. Other key scholars who have influenced entrepreneurship research are Frank Knight (1885-1972), David McClelland (1917-1998) and Peter F. Drucker (1909-2005). However, I do not considered them to be entrepreneurship scholars per se.

Interestingly, while there is a lot of literature on "Schumpeterian entrepreneurs", there is relatively little on "Intrapreneurs". The entrepreneurship literature admits the difficulties and limitations of researching the field of intrapreneurship (Antoncic and Hisrich, 2004; Bosma, Stam, and Wennekers, 2010). The few studies that have been done research on intrapreneurship use quite different methodologies and approaches. The Global Entrepreneurship Monitor report recently acknowledged that "currently little is known about how intrapreneurship activity differs across countries" (Levie, Bosma, Acs, Autio, and Coduras, 2009, p.19).

XXVI. While finishing this thesis, on 24 June 2011, Peter Falk, the actor who impersonated Columbo, passed away at the age of 83.

XXVII. Julien's book is called: "A Theory of Local Entrepreneurship in the Knowledge Economy" (2007). It was chosen by Prof. Søren Kerndrup as the textbook for economic geography classes I have taught.

Nevertheless, it could be argued that Julien (2007) is still in the territory of entrepreneurship in the narrow sense. He talks about four types of entrepreneurship (imitation, reproduction, venture and valorization). He indirectly acknowledges the innovative ideas of employees in firms but focuses little on the intrapreneurship strand of thought. Likewise, public intrapreneurs are not considered in his entrepreneur taxonomy.

XXIX. In particular, criminal actors involved in economic endeavors play a role. These types of economic criminal activities cut across the four cells. Regardless of how abhorrent these things can be, it should be recognized that these criminal activities are based on a social construction. For example, in the United States, many states make some sorts of gambling a punishable crime; meanwhile, some places in Europe have placed gambling in the not-for profit sector. This social construction also happens with some kinds of drugs, prostitution, pornography, and even lobbying of

politicians; in some countries they are legal and in others they are not. To me, the classification as legal or illegal, formal or informal does not change their entrepreneurial status since such activities still play a role in the economy. It is up to the citizens of each region to call these activities whatever they desire and support whatever entrepreneurship they think will benefit their society. I acknowledge informal and criminal entrepreneurship; however, it is not within the scope of this thesis to address their relationship to the economy.

The informal economy in selected countries are roughly: Greece 29%, Belgium 23%, Spain 22%, Denmark 18%, Netherlands 13%, Switzerland 9%. E.g. OECD non-European: United States 9% (Schneider, 2004)

XXXI. After presenting the entrepreneurship matrix at the academic conference in May 2008, three months later, in August 2008, a presentation to the partners of the project at the Frederikshavn municipality gave me the opportunity to supplement this matrix. Following the suggestions of the project manager (Prof. Anne Lorentzen), I stressed the importance of the links between the actors, in other words, the local networks. I also mentioned the importance of supporting the networks at regional, national and international levels. I expand upon this vision in Article 1 and Article 4.

XXXII. Ironically, Shane, in a previous book co-authored with Baron (2005), gives an extremely open definition of entrepreneurship. In that book, an entrepreneur would also be "a university scientist engaged in basic research on the biochemistry of life [who] makes important discoveries that advance the frontiers of his field; however, he has no interest in identifying practical uses on his discoveries and does not attempt to do so" (p. 5). To me, this scientist, even though quite innovative, would not be an entrepreneur because he is not putting anything into the market or improving any process of production. Please see the six traits of entrepreneurs laid out in Discussion.

XXXIII. If, for example, I accept the idea that entrepreneurs are people "acting creatively" a meaningless discussion would ensue due to the fact that every human being has "a wish to create something that did not exist before" (Uchtdorf, 2008).

The definition we used was: "First-time entrepreneurs in 2004 in the age range of 15-66. (...) The entrepreneurs are defined by meeting the following criteria: They have started an incorporated or unincorporated business with "real" activity as their main occupation in 2004. For the business to be "real" active in a given year the work effort and/or the earnings (calculated from turnover) has to be above a given industry specific level which for businesses started that year is set to half. Businesses from the primary sector (and the energy sector) are not included given the level of government intervention in these sectors" (Article 3).

XXXV A spin off can be defined as "a group of workers breaking up from an existing firm" to create a new business (Fink, Kalkbrenner, Weber, and Zulehner, 2010).

XXXVI It is also hard to track quantitatively whether this new firm is property of the parent firm or whether it comes from a rebel employee who is establishing hostile competition. It also may be something in between.

XXXVII. Similarly, entrepreneurs in the public sector should be considered. For

example, in the United States it is not uncommon for a professor to create his/her own business; whereas in Europe, it would be strange. Hence, there may be an American academic in energy storage doing project Y in a company he has created, while a European professor in energy storage would probably do project Z by collaborating with a municipality. Even though both methods could have similar outcomes for entrepreneurial dynamics, at the innovation and economic development levels, the first professor would be hailed as a great entrepreneur and the second one would not. Quantitative researchers have fewer possibilities of tracking the European professor; while qualitative researchers, by employing a case study, may become aware of him.

XXXVIII. Some researchers who subscribe very closely to the definition of entrepreneurship in the broad sense laid out by Schumpeter (1949) may include (Johannisson and Nilsson, 1989; Julien, 2007), Fagerberg (2003), Pittaway (2009) and Andersen (forthcoming).

XXXIX. Society sees Edison as the great inventor of the light bulb, yet his success would not have been possible without the great network of private researchers he formed, or how his network influenced the government of New York City to switch to the electrical system from the gas one (Hargadon and Douglas, 2001).

XL. In the US, the terms government and innovation are generally accepted as antonyms. Reality shows, however, that the US Government has played an important role in industries such as agriculture, steel, railroad, automotive, semiconductors, internet, etc.

XLI. Even in Schumpeter's work, some references were likely given in his book Entwicklung written in German (Schumpeter, 1912), as it has a central focus on entrepreneurs. However, I do not understand German, and only some parts of the book have recently been translated to English (Becker, Knudsen, and Swedberg, 2011).

XLII. Many formal institutions can be adapted to be more efficient by changing laws, yet informal institutions (e.g. trust) cannot be changed by a law. Or can they be? Some researchers suggest that institutions can be changed by the government actions. For example, Italian politicians could not pass a law dictating citizens trust government agencies; however, by making strong efforts to tackle important issues like eliminating the influence of the Camorra in many local governments, trust among different agencies as well as citizens could be improved (Bull and Frate, 2003).

## Chapter 4

XLIII. A broader view of entrepreneurship could be appropriate for initiatives like the Community Interest Companies originated in the United Kingdom in 2005. These enterprises intend to use their profits and assets for the public good instead of maximizing profits for shareholders and owners.

XLIV. I have seen studies that have tried to quantify quality of life and place by income levels, debt ratios, housing expenditures, feelings of safety, travel time to work, access to a variety of food, good health and health care, availability of education, possibilities of raise a family, leisure hours, access to entertainment, proximity to friends and family, prevalence of mild temperatures, access to other

valuable activities, etc.

XLV. *Erhvervsråd* can be literally translated as a "Business Council" and are similar to a Chamber of Commerce.

XLVI. A third group could be consulting companies which may be categorized as falling somewhere in the middle of academics and practitioners.

At the International Economic Development Conference (June 2011, Indianapolis, USA), I gave two informal interviews to LED experts. I asked them if they found there to be a disconnect between themselves and academia. They both had certain links to universities but believed academics to be "in their own world", "locked in an ivory tower" and "disconnected from reality". One explained how in her hometown "the professors in the field (usually in planning) have their own network, come from the same prestigious university, and end up recruiting each other." She said that while there are some younger Ph.D. students who have more involved projects, the professors stay in their own little bubble. The dislike and distrust between the groups is not one sided. At Berkeley in an interview with one prominent economic geography and regional development professor on his feelings about LED he said, "A lot of prayer and a lot of prostitution!! A lot of prostitution!! (not literally) Those guys will do whatever to please companies!"

XLVIII. Because in periods of growth more taxes are collected, more public expenditures are possible. In these time periods peripheral areas, on the basis of solidarity (or national cohesion), have the opportunity to ask for further funding. This is a wealth transfer from cities to rural areas. Jacobs suggests that the large cash transfers from urban areas to rural areas are paid in the form of agriculture, the military, infrastructure and education and are the price large cities have to pay to keep their territories in the idea of a nation (Jacobs, 1984). In Denmark, unfortunately, exact numbers of how much money is transferred from the core to the peripheral areas is unclear. In the case of developing countries like Bolivia, Andersen explains how much more donation money goes to rural development instead of growing cities that offer better returns to its residents. She concludes: "Current public policy tends to spend more money per person in poor rural areas than in richer urban areas under the philosophy that the former have greater needs. However, it seems to me that the urban centers absorbing tens of thousands of migrants every year have much greater needs for new public infrastructure than remote rural areas that are slowly getting depopulated because they cannot sustain a population above subsistence level" (Andersen, 2011 p. 107). In my future research, I would like to further investigate the issue of wealth transfers in advanced economies.

XLIX. Edquist (2005, p. 191) explains: "The systematic approach to [Systems of Innovation (SIs)] does not imply that they are or can be consciously designed or planned. On the contrary, just as innovation processes are evolutionary, SIs evolve over time in a largely unplanned manner. Even if we knew all the determinants of innovation process in detail (which we certainly do not now, and perhaps never will), we would not be able to control them and design or "build" SIs on the basis of this knowledge."

# Chapter 5.

L. Regardless of what the biggest propaganda machines the governments of the United States and the Soviet Union say, Chomsky and Herman (2004) allege that neither pure Capitalism nor Communism have ever been implemented by any government.

LI. The term oplevelse can be translated to experience, but the word for most Danes has a direct link to cultural events. To give the reader an example, if one types the word oplevelse in Google and Yahoo (Denmark), of ten suggestions given by these search engines one is Oplevelsesøkonomi. Other suggestions are oplevelser i New York (experiences in New York) as well as "experiences" in different parts of Denmark and even "experiences" for children. It can be said that the word oplevelser in Danish has a different and more precise meaning than in English and other languages (See Article 2).

LII. Other highly suggested policy interventions discovered by the survey were high technology (32%) and education (25%).

[Chapter 6 to 9 (the articles) do not have endnotes, but footnotes within.]

### Chapter 10.

LIII. The effects and reasons for the financial crisis have been widely shared by Europe and the United States, regions which have historically been linked in their booms and busts. A United States government commission pinpointed several reasons for the crisis including: Lack of financial regulation and supervision, corporate governance, excessive borrowing, risky investments, lack of transparency and failure of credit rating agencies, among other factors (Financial Crisis Inquiry Commission, 2011). This came hand in hand with the housing bubble and was fueled by an influx of Asian capital and artificially low interest rates by the U.S. Federal Reserve and European Central Bank.

Even in 2010 "many countries in the innovation-driven group remain pessimistic, with more than half of their early-stage entrepreneurs stating it was harder to start a business in 2010 compared to the year before" (Kelley, Bosma, and Amorós, 2011).

LV. The original project (2007) of PalmCity consisted of 1,009 holiday homes, a water park, spa, shopping center, and a golf course designed by an international golf specialist. Its commercials state: "Palm City offers holiday experiences for the whole family - together or individually". See palmcity.dk/ which includes a short English version. The rise and fall of this project became a highly political debate in the Frederikshavn community and apparently contributed to ousting the Social Democrat mayor of 12 years in the late-2009 elections. Currently, a house is open but the project's expectations are now small. However, if the project would have hit the holiday houses' boom of the early 2000s instead of late 2000s, it could have been successful.

#### **Endnotes**

<sup>LVI.</sup> A potential future reader of this thesis will probably look at this section with some curiosity; he/she needs to understand the perception we have had of the immense challenges in Western countries from 2008-2011.

LVII. A consultant involved in regional economic development mentioned that similar things sometimes happen with regional stakeholders that only care about their region and nothing else.

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# **APPENDICES**

# 1. Maps Frederikshavn and Vallejo





Figure 19 Map Municipality Frederikshavn (North Denmark)

Figure 20 Map City of Vallejo in the San Francisco Bay Area (California, USA)

Figure 7 and Figure 16 are more detailed maps of Denmark and the San Francisco Bay Area respectively.

# 2. Differences and similarities Frederikshavn and Vallejo

Frederikshavn is a small city of roughly 25,000 inhabitants located in North Denmark. There are some small towns around it and it is within a municipality of the same name. Comparatively, Vallejo is four times bigger than Frederikshavn, located in California, and is part of a large urban area. Below I compile the main differences and similarities of Vallejo compared to Frederikshavn.

### Some differences

- 1. Vallejo is considered as part of the San Francisco Bay Area—a city region of 7 million people.
- 2. It is in the United States and is regulated by Federal (national) and State (California) laws.
- 3. It has American socioeconomic characteristics.
- 4. It has historical traits of a U.S. western city with its booms and busts.
- 5. Vallejo has a very diverse population. Vallejo's white population only totals 30% and the rest is quite mixed (25% Asian, 25% African-American, 15% Hispanic and the rest from different races). Frederikshavn's has an immigration rate of 5%, with only 2% from non-Western countries.
- 6. Vallejo has very nice weather

Some similarities that Vallejo has with Frederikshavn:

- 1. Blue-collar towns (with all that this implies).
- 2. Train got there at nearly the same time (1869 in Vallejo and 1871 Frederikshavn) and at the end of the railway boom.
- 3. Their position on the coast and the arrival of the train are the two most important factors in explaining the existence and development of both.
- 4. They were industrially oriented during all 20<sup>th</sup> century
- 5. Shipyards were their highest employer during mid-20<sup>th</sup> century.
- 6. The shipyards closed in the 1990s.
- 7. They are traditionally military "Navy towns" (Vallejo's base closed in 1996).
- 8. They can be considered to be in the "periphery" of innovative regions. The towns supply people to the larger region.
- 9. 'Little brother syndrome' compared to bigger cities relatively nearby.
- 10. Even though they're not rich towns, on average they have a decent standard of living.
- 11. There have been significant recent political changes (political tension).
- 12. Recent change of Mayor (2008-09).
- 13. Strong emphasis on the 'experience economy' (recreation, tourism, culture, etc.).
- 14. They are towns on the way to larger city-regions ("strategic" geographical position).
- 15. Strong focus on fostering entrepreneurship, with partial success.
- 16. Powerful unions.

#### **APPENDICES**

- 17. Regarded as lesser cities by bigger cities.
- 18. Education scores are lower than the average.
- 19. A high number of young people leave these towns.
- 20. Relatively violent reputations.
- 21. They each have a small marina.
- 22. There both have a ferry service.
- 23. Crucial building projects have not been started because of a lack of funding.
- 24. Currently, unemployment rates are higher than average in these two towns.
- 25. Recent serious economic troubles
- 26. They have a few groups of very active citizens
- 27. They are the poorest rich. The Bay Area as well as Denmark are very rich places compared to the rest of the world.

# 3. GDP and consumer confidence 1991-2011

This graph represents Danish steady growth and stable consumer confidence during the 1990s up until 2007. Then it shows the difficulties of the last several years.

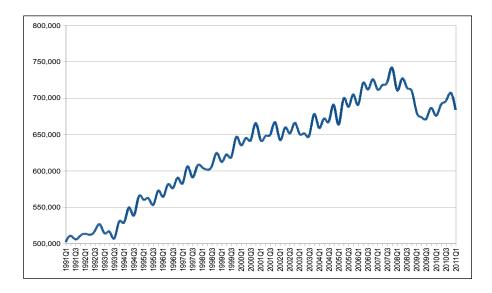


Figure 21 Danish GDP (1991 Q1 - 2011 Q1).

Below is represented the Danish national production. 2000-prices, chained values millions of DKK. Source: Statistics Denmark



Figure 22 Danish Consumer Confidence.

"General economic situation of the country over the last 12 months" (1991 M7 - 2011 M7). Source: Statistics Denmark

4. Jyske Bank (2006-2008). A case of the experience economy reach in the private sector.

It is hard to describe the reach of the concept of the experience economy in Denmark when I started my Ph.D.. For the non-Scandinavian reader, such focus on a relatively little known concept must seem strange. Article 2 gives local economic development examples But the concept was widespread throughout society. Below is an example of how intertwined the experience economy and corporate branding became before 2008, which I see as a type, that could be some sort of entrepreneurial dynamics.

The following case is from the financial sector—a sector where the projection of a serious and credible image is key. This example highlights the impact of TEE on Danish society. Five years ago, The Experience Economy was a buzzword, not only in the public sector but also in much marketing literature. In September 2006, Jyske Bank, the third largest bank in Denmark, launched a new strategy based on the experience economy (Techou and Knudsen, 2008). This consisted in a visual change "based on retail rather than banking. Each bank branch now featured a cafe, a play corner for the kids and information on products were gathered in themed boxes that could n be scanned at info stations for more information on the box content" (Wikipedia, n.d.). The picture below from 2007 shows Jyske Bank's attempt at corporate branding.



Figure 23 Waiting room at Jyske Bank's headquarters in Silkeborg. Feb. 2007. Source: Techou and Knudsen, 2008

A bank with relaxed Middle Eastern inspired images, including a water pipe on the left, seemed to be the appropriate strategy if one were influenced by the experience economy. The image may seem bizarre to some in 2011 and the future. Back in 2006, many in the bank management firmly declared "the experience economy is the future" (Jyllands-Posten, 2006).



Figure 24 Jyske Bank director with large dancing fish (Oct. 2006) Source Jyllands-Posten (2006)

In 2006, Jyske Bank invested roughly 400 million DKK in their 120 branches to give them a new experience economy look for the new times. The bank's management was convinced that it was raising the bar, and that other banks would follow suit by using elements of the experience economy in their banks(ibid.). Other banks in Denmark did started offering better experiences to customers like coffee, tea and hot chocolate. or other forms of entertainment. However, then the global economic crisis struck. Since the 2008-2009 financial crisis, nine Danish banks have collapsed (the last one in June 2011) and most have been taken over by the Government (RTÉ News, 2011). Meanwhile, while Jyske Bank is still afloat, things have not gone well for them. When the picture from their headquarters was taken in early 2007, their share prices were peaking at over 450 DKK per share. Two years later the price fell below 100 DKK (see graph below) The idea in Denmark banking went from "customers want to have experiences in the bank" (Jyllands-Posten, 2006), to "customers want to make sure their savings are secure". On 11 October 2008, the Danish government was forced to pass an emergency Bank package to protect depositors and creditors from banks becoming insolvent. Today, Jyske Bank, looks again as any other traditional bank.

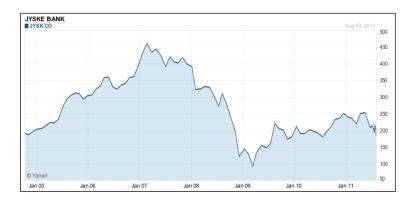


Figure 25 Jyske Bank share price. Late 2004-mid 2011 (Maximum timeline offered) Source: Yahoo Finance

# 5. List of interviews

See section 2.3 on Methodology with more explanations about the interviews.

Nu.	Nu. Person	Position, Organization	Type interview Month Year Subject	Month	Year	Subject
	Claus Aune	Employee, Frederikshavn Erhvervsråd	semi-structured	3	2008	2008 Business population FRH
2	Police officer*	Records at Police Station Aalborg	informal	1	2009	2009 About perception of crime in FRH
3	Jesse Lilly	Former-Director, Lighting Visions Innovation Center	semi-structured	2	2009	2009 Lighting Festival and LVIC FRH
4	Heidi Brauteseth	Professor, EUC (local technical school)	semi-structured	3	2009	2009 Lighting Festival and LVIC FRH
5	Eva Hein	Executive Assistant, Martin Professional	emails	3	2009	2009 About Martin Lighting Company
9	Employee*	Tourist Office Frederikshavn	unstructured	3	2009	2009 Tourism in FRH
7	Søren Tjønneland	Director, Roblon Lighting Division	semi-structured	3	2009	2009 Lighting Festival and LVIC FRH
~	Tove V. Malmberg	Official, Frederikshavn Municipality	semi-structured	3	2009	2009 LVIC and Lighting Festival
6	Morten Sønderskov	9 Morten Sønderskov Director, Funky Sound and Lighting	emails	9	2009	2009 Lighting Festival FRH
10	10 Poul Christensen	Director, Læsø Salt	informal	9	2009	2009 About his company
11	Erik Holm Sørensen	11 Erik Holm Sørensen Coordinator, Tordenskiold Festival	structured	9	2009	2009 About Tordenksiold Festival FRH
12	Maj-Britt Sørensen	12 Maj-Britt Sørensen Coordinator, Tordenksiold Festival	structured	9	2009	2009 About Tordenksiold Festival FRH
13	Thea Vest	Employee, Frederikshavn Turistbureau	various	/arious	2010	various 2010 Tourism in FRH
14	14 Niels Oestergaard	Professor, EUC Nord (tech school) & Entrepreneur	semi-structured	7	2009	2009 Lighting Festival FRH
15	Alison Ritter	Director, Professional Lighting Designers' Association	emails	7	2009	2009 Lighting Festival
16	16 Lea Thiesen	Coordinator, Light Visions Innovations Center	emails	/arious	2009	various 2009 Lighting Festival and LVIC FRH
17	7 Karen Chapple	Director, Center Community Innovation (UC Berkeley)	semi-structured	3	2010	2010 Economic geography Bay Area
18	8 Anne Martin	Resercher, Center Community Innovation (UC Berkeley)	informal	2	2010	2010 Maps of Vallejo and Bay Area
19	19 Ted Vollmer	Editor, Vallejo Times Herald	informal	3	2010	2010 VLJ in general
20	20 Craig Whittom	Ass. City Manager/Community Development Director	semi-structured	3	2010	2010 Finances of VLJ
21	21 Jerry Kea	Dean, Solano Community College at Vallejo	structured	3	2010	2010 Higher Education in VLJ

Nu.	Nu. Person	Position, Organization	Type interview Month Year Subject	Month	Year	Subject
22	22 Charles Eason	Director, Solano Community College at Vallejo	emails	3	2010	2010 Entrepreneurship education in VLJ
23	23 Anita Hawkes	President, Vallejo Chamber of Commerce	semi-structured	3	2010	2010 Businesses in VLJ
24	24 Jim Reikowsky	Communications rep., VLJ Visitors and Tourism Bureau	semi-structured	3	2010	2010 Tourism in VLJ
25	25 Chuma Ikenze	Board member, former Vallejo Business Incubator	semi-structured	3	2010	2010 VLJ Bus. Incubator rise & demise
26	26 Jon Riley	Director, Napa/Solano Central Labor Council (Firefighter)	semi-structured	3	2010	2010 Firefighters & local gov. VLJ
27	27 Ryan Chandler	Ex-Chairman, Vallejo Economic Development Commission	emails	3	2010	2010 VLJ in general
28	28 J.D. Miller	Owner of JD Miller accountanting firm	semi-structured	3	2010	2010 Finances of VLJ
29	29 Gardener*	Greater Vallejo Recreation District (GVRD)	informal	3	2010	2010 GVRD and relation with local gov.
30	30 Employee*	Vallejo School District	informal	3	2010	2010 Primary & Secondary Edu.in VLJ
31	31 Employee*	Vallejo Library	informal	3	2010	2010 Libraries & local and county gov.
32	Rikke Petersen	Official, UCN Technologi and Business (Aalborg)	emails	5	2010	2010 Use of TEE in their center
33	Ole Kjær Mansfeldt	33 Ole Kjær Mansfeldt Official, Wonderful Copenhagen	emails	5	2010	2010 Introduction of TEE in Denmark
34	34 Joanne Schivley	Vallejo City Council Member	informal	9	2010	2010 VLJ in general
35	35 Mark Lorenzen	Professor, Copenhagen Business School	emails	11	2010	2010 TEE in Denmark
36	36 Claus Østergaard	Official, Center for Applied Experience Economy	various	various	2010	various 2010 TEE in North Denmark
37	Trine Bille	Professor, Copenhagen Business School	various	various	2010	various 2010 TEE in general
38	38 Christine Zacho	Project Manager at KODA (Copenhagen)	various	various	2010	various 2010 TEE in Denmark
39	39 Stephanie Gomes	Vallejo City Council Member	emails	various	2010	various 2010 VLJ in general
40	40 Per Strömberg	Centre for Experience Economy, Norwegian Sch. Mngmt.	short email	8	2010	2010 Finding sources use of TEE
41	41 Louise Nielsen	Official, Center Business Development, Copenhagen	emails	12	2010	2010 Reporst on Danish gov. & TEE
42	42 Peter Fenger	Danish Beer Association	emails	7	2011	2011 Microbreweris in Denmark

#### **APPENDICES**

The following seven individuals , I consider them key informants. I have had several interviews and/or communications.

Nu.	Person	Position, Organization	Subject
43	Bente Jochumsen	Official, Frederikshavn Municipality	LVIC and Lighting Festival
44	Jessica York	Journalist, at Vallejo Times Herald	VLJ in general
45	Jim Kern	Director, Vallejo Naval and Historic Museum	VLJ in general
46	Jørgen Ove Jensen	Managing Director, of Frederikshavn Erhvervsråd	LVIC, Lighting Festival, FRH
47	Marc Garman	Editor, Vallejo Independent Bulletin	VLJ in general
48	Steen Heftholm	Project Manager, Frederikshavn Municipality	FHR and TEE
49	Thea Vest	Official, Frederikshavn Turist Office	Tourism in FRH, TEE

As explained in the Methodology (2.3) I have communicated with other people, in informal conversations about topics of the thesis. These include:

In Frederikshavn	Members of the Steering comittee of the Project (5 members)
	Various citizens in the city about Lighting Festival
	Various business people on effect of Lightings Festival
	Various citizens in the Tordenskiold Festival
	Various business people on effect of Tordenskiold Festival
	Lighting Consultant London, UK
	Lighting Consultant Tokyo, Japan
	Dan H. Andersen author of <i>Tordenskioldage</i> theater play
	Several participants involved in the conference of the festival
In Vallejo	13 businesses in the municipality
	Regular citizens, and former citizens.
	Informal conversations with police officers
	Informal conversation at Firefighters station (they refused a formal interview)
	Small poll in the ferry station to citizens about a measure about the budget
	UC Berkeley students who were from Vallejo or have conections to the area
	Small poll in the ferry station to citizens about a measure about the budget
TEE	Participants in intl. conferences, ask them about TEE in their countries
	Survey to 14 planners and academics in a workshop (Aalborg)
	Conversation and emails with Joe Pine co-author of <i>The Experience Economy</i> .

### Abreviations in this Appendix:

FRH: Frederikshavn

GVRD: Greater Vallejo Recreation District

TEE: The Experience Economy

VLJ: Vallejo

\* Informal interview named not taken.

# 6. Blogging for academic purposes.

Blogging refers to basically posting texts online. During my Ph.D. studies I have used a blog <u>carlos9900.wordpress.com/</u>, and a microblog account in Twitter: <u>twitter.com/carlos9900</u>. I chose to include the number 9900 because it is the postal code of Frederikshavn and helped me to keep in mind the blog's orientation towards my Ph.D.

I set the goal of uploading a couple of paragraphs once a week or every two weeks. I wanted to post regularly but not distract myself. I also used Twitter (also known as microblogging and related to social network software) and uploaded some of my ideas almost daily. Very few Ph.D. students use blogging, and even fewer claim to use these tools for academic purposes. Among professors this is even rarer. I understand that for people who do not use these tools, blogging may not sound like an efficient tool to use during a Ph.D.. Thus, I would like to clearly establish what I achieved by doing it:

- Practice much needed writing without worrying too much about grammar, sources, etc.
- Was able to get immediate feedback from ideas I shared. 13,000 people have visited my blog, and I have received more than 100 comments.
- Was able to ask for further information (sources, clarifications, etc.) from others and engage in conversations with colleagues and experts. Twitter's virtual social network is an important place for dialogue.
- Keep update on pre-state-of-the-art information in some fields. Many scholars and research centers share ideas on Twitter before publishing them.
- One can follow the zeitgeist in some fields by following the discussion of academics, practitioners and consultants in real time.

During the Enlightenment in Europe, coffee houses played an important role in cultivating many innovations. Today in 2011 I believe social media is the place to nurture many of the latest ideas. On the other hand, these tools must be used properly since one can waste much time on them. Overall, however, I think that using blogging wisely can be a good tool for research purposes. I have also been satisfied to use blogging to spread knowledge among society.

### **Summary**

The research in this Ph.D. thesis was done under the auspices of the project *Entreprenørskab*, *oplevelsesøkonomi og regional udvikling* (Entrepreneurship, experience economy and regional development), partly supported by the Nordjyske Vækstforum (North Denmark Growth Forum) through European Union funding. The Ph.D. project officially began on 1 April 2008. Besides investigating the concepts mentioned in the title of the project, it also required drawing examples from the Frederikshavn municipality. The main question of the thesis is:

How do entrepreneurial dynamics evolve in peripheral cities?

The thesis examines the role of entrepreneurship in regional and local economic development and proposes the concept of entrepreneurship in the broad sense. The positive and negative aspects of policies and projects related to the so-called 'experience economy' are also discussed since it has been, and remains to be, a major focus for many peripheral Danish municipalities.

The methodology used is a mixed method research approach, combining qualitative material such as interviews for case studies and active observation as well as quantitative methods consisting primarily of evaluating extensive statistical datasets. The study also includes an extensive literature review of the key concepts included in the thesis.

To complement existing literature on the subject, the thesis includes four articles based on journal articles. Two of them were published this year (May, Article 1 and October, Article 2,). Article 3 has been accepted for review, and Article 4 has been accepted for publication with revisions.

The articles show that the 'experience economy' has several positive aspects (Article 1). Nonetheless, as many researchers have recently pointed out, the majority of municipalities and regions should not have a major focus on it. A lesson learned is that local governments should avoid implementing concepts uncritically (Article 2). Furthermore, Article 3 examines the entrepreneurial traits of urban and rural populations in Denmark, with a particular focus on their entrepreneurs. Counterintuitively, the results show that entrepreneurs in urban and rural areas are not that different, but the study does suggest some key differences regarding social networks and individual creativity in urban and rural areas. Article 4 examines Vallejo—a peripheral municipality in the city region of the San Francisco Bay Area. The importance of interdependence in

#### **Summary**

peripheral municipalities is shown along with the need for a more cohesive regional policy based on innovation in the broad sense.

Based on the literature review and the articles, the thesis presents a model that sets out the evolutionary process of effective local and regional economic development by using entrepreneurial dynamics and fostering entrepreneurship in the broad sense. In this systematic process in which the main actors and networks are examined, 'capacity', 'will' and 'institutions' play important roles. The focus on the 'experience economy' can be seen as a holistic and positive trial-and-error process.

Keywords: entrepreneurship, local economic development, innovation system, experience economy, cities, regions, Frederikshavn (Denmark), Vallejo (California, USA), economic geography, evolutionary economics.

# Resumé på dansk

Denne Ph.D. afhandling er lavet i regi af projektet 'Entreprenørskab, oplevelsesøkonomi og regional udvikling', delvist støttet af Nordjyske Vækstforum gennem finansiering fra Europæisk Union. Ph.D projektet blev officielt påbegyndt den 1. april 2008. Udover at undersøge begreberne nævnt i projektets titel, bliver der brugt eksempler fra Frederikshavn kommune. Hovedspørgsmålet i afhandlingen er:

Hvordan udvikles Entreprenørskab-dynamik i perifere byer?

Afhandlingen undersøger betydningen af entreprenørskab i regional og lokal økonomisk udvikling, og foreslår princippet entreprenørskab i bred forstand. De positive og negative aspekter ved politikker og projekter, vedrørende den såkaldte "oplevesesøkonomi", bliver ligeledes drøftet, eftersom "oplevesesøkonomien" blev, og vedbliver at være, et hovedfokus for mange perifere danske kommuner.

Metoden brugt i denne afhandling er en kombination af kvalitative og kvantitative undersøgelser, hvor kvalitativt materiale, som interviews til case studier, kombineres med aktiv observation, samt kvantitative metoder hovedsagligt bestående af evaluering af omfattende statistiske datasæt. Studiet indeholder også en omfattende litteraturgennemgang af de vigtigste begreber, der bliver brugt i afhandlingen.

Ph.D. afhandlingen inkluderer fire tidsskriftsartikler, som er et supplement til den eksisterende litteratur om emnet. To af disse blev udgivet i år (maj, artikel 1 og oktober, artikel 2). Artikel 3 er blevet godkendt til gennemgang, og artikel 4 er blevet godkendt til udgivelse med visse ændringer.

Artiklerne viser, at "oplevelsesøkonomien" har adskillige positive aspekter (Artikel 1). Ikke desto mindre bør størstedelen af kommunerne og regionerne ikke lægge stor vægt på det. Erfaringer har vist, at lokale myndigheder bør undgå at iværksætte principperne ukritisk (Artikel 2). Endvidere undersøger Artikel 3 de iværksætter-karaktertræk ved by- og landbefolkningen i Danmark, med særligt fokus på deres entrepreneurer. Mod forventningen viser resultatet, at entreprenører i by- og landområder ikke er meget forskellige, men studiet viser dog nogle vigtige forskellige med hensyn til sociale netværker og individuel kreativitet i by- og landområder. Artikel 4 undersøger Vallejo, en perifer kommune i San Fransisco-området. Vigtigheden af den indbyrdes

### Resumé på dansk

afhængighed i perifere kommuner er vist sammen med behovet for en mere sammenhængende regional politik, der bygger på innovation i bred forstand.

På baggrund af litteraturgennemgangen og artiklerne, præsenterer afhandlingen en model, der opstiller udviklingsprocessen ved effektiv lokal og regional økonomisk udvikling, ved brug af entrepreneurielle dynamikker, og samt ved fremmelse af entreprenørskab i den bredeste forstand. I den systematiske proces, hvori de vigtigste aktører og sociale netværker er undersøgt, spiller "kapacitet", "vilje" og "institutioner" vigtige roller. Fokusset på "oplevelsesøkonomi" kan forstås som en holistisk og positiv *trial-and-error* proces.

Keywords: Entreprenørskab, lokal økonomisk udvikling, innovationsystem, oplevelsesøkonomi, byer, regioner, Frederikshavn, Vallejo (California, USA) økonomisk geografi, evolutionær økonomisk

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