

UNDERSTANDING THE ATTRACTION FORCES OF A LOCATION

THE CASE OF MALMÖ'S NEW DIGITAL MEDIA SECTOR – SWEDEN

Master Thesis at the program Cultural Economics and Entrepreneurship

Alfiero Zanotto, June 2014.



ERASMUS SCHOOL OF HISTORY, CULTURE AND COMMUNICATION

ERASMUS UNIVERSITY, ROTTERDAM – THE NETHERLANDS

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Abstract

This thesis investigates in the reasons behind the location choice of entrepreneurs and firms. Existing literature point at two main theories; one supporting the soft factors such as cultural amenities and tolerant locations; the second theory supports the hard factors such as a strong local economic system and job opportunities. The factors presented in the existing theories are arguing that either soft, or hard factors are necessary if locations are to attract firms and entrepreneurs and consequentially grow.

40 surveys and four in-depth interviews have been conducted with firms that operate in the new digital media sector in Malmö. The purpose of this empirical research has been to understand why firms in the new digital media sector are locating in Malmö.

The results show that there is not a clear single factor that influences the choice of locating in Malmö. The data provided in this thesis shows that there is quite a balance between hard and soft factors and that firms and entrepreneurs actually are looking for both. The results from this thesis further indicate that Malmö's new digital media sector is strong. New digital media workers would rather stay in Malmö than moving to Copenhagen where the new digital media sector is not yet on Malmö's level.

Key words: Urban development, Locational choice, New digital media, Clusters, Attraction forces

Table of contents

1. Introduction	12
1.1 Research question and aim of the research	12
1.2 Academic and societal relevance.....	13
1.3 Structure	13
2. Literature Review	16
2.1 Location theories	17
2.2 Creative cities – what and why?	20
2.3 Locational factors.....	23
2.3.1 Hard and soft factors	23
2.3.2 Localization and urbanization (economies)	26
2.3.3 – What are the attraction forces, urban amenities or clusters?	27
2.4 Buzz – when (co)-location matters.....	29
2.5 Soft factors are attracting workers	32
2.5.1 The creative class.....	33
2.5.2 The creative class, 2002.....	34
2.5.3 The creative class, 2012.....	35
2.5.4 Locational development – 3T theory	36
2.6 Hard factors are attracting workers	38
2.6.1 The new geography of jobs.....	41
2.7 What are creative workers looking for?	44
2.8 Malmö – Creative cities and creative clusters.....	46
2.9 Conclusion	48
3. Methodology	51
3.1 Mixed method approach.....	52
3.2 Research question	53
3.2.1 Hypotheses.....	53
3.3 Research design	55
3.2 Validity	56

3.3 Reliability	56
3.4 Operationalization of concepts	57
3.4.1 The Swedish creative industries.....	57
3.4.2 Locational factors	58
3.4.3 The dependent and independent variables	61
3.5 Sampling	64
3.6 Method of data collection and analysis	68
3.6.1 Quantitative analysis.....	68
3.6.2 Survey framework.....	68
3.6.3 Pilot survey	69
3.6.4 Qualitative analysis – Interviews	69
4. Results	71
4.1 Quantitative data analysis	72
4.1.1 Results from the Likert-scale assumptions	77
4.1.2 Cronbach’s Alpha	80
4.1.3 Normality test (Shapiro – Wilk) – Malmö/not Malmö.....	81
4.1.4 Normality test (Shapiro – Wilk) – Young/Old.....	87
4.1.3 Malmö/not Malmö – Young/Old.....	92
4.2 Independent T-test	95
4.2.1 Soft factors – firms founded and not founded in Malmö.....	96
4.2.2 Hard factors – firms founded and not founded in Malmö	96
4.2.3 Soft factors – young and old firms.....	98
4.2.4 Hard factors – young and old firms.....	99
4.3 Mann-Whitney test for non-normally distributed variables	100
4.3.1 Soft factors – firms founded and not founded in Malmö.....	100
4.3.2 Hard factors – firms founded and not founded in Malmö	100
4.3.3 Soft factors – Young/old firms	101
4.3.4 Hard factors – Young/old firms	101
4.4 Qualitative data analysis	102
4.3.1 Open ended questions	103
4.3.2 Interviews.....	104
4.4 Summary of the qualitative data	105
4.5 Conclusion on the triangulation method	107

5 Conclusions	108
5.1 Limitations	111
5.2 Avenues for future research	111
Appendix I – Survey	113
Appendix II – List of interviewees	116
Appendix III – Test for normality (Firms founded/not in Malmö)	117
Appendix IV – Test for normality (Young and old firms)	135
Appendix V – Interviews	153
References:	157

1. Introduction

The reasons for why individuals and firms move to certain cities and locations have been researched from different perspectives. Some (Florida, 2002; 2012) argue that first of all there is a need of creating a creative milieu that will attract individuals. These individuals will consequentially attract firms and the result of this is regional development. Others (Scott, 2006; Scott & Storper, 2007; Storper & Scott, 2009) argue that it works in a reverted way, first of all there is a need to create job opportunities by attracting firms, then individuals will move to wherever the firms are located, and the result of this is regional development. There are no right or wrong answers to which approach that is correct. Every city and location is a unique case and it is therefore almost impossible to create a general model that is applicable on all the cities in the world.

Sweden has long tradition of innovation. Firms like IKEA, Spotify and Skype are some of the great exports that the country has produced over the years. Despite its small size (population wise, approx. 9 million), the country has been able to compete on a global level in many different sectors. The new digital media sector is one of the sectors that globally have been growing at a tremendous speed the past 10 years. We have witnessed the evolution of smart phones and the app-market, bringing us games and other applications that have hundreds of millions of active users. The interesting aspect in the growth of a sector is to understand where the sector locates and why it chooses to do so.

1.1 Research question and aim of the research

In many countries around the world we witness the clustering of industries, certain sectors tend to choose specific locations where their cluster develops. In Sweden, we can see that Stockholm is home to many headquarters of firms that are operating in the new digital media sector. However, all the action is not going in exclusively in the capital, the new digital media sector in Malmö has been growing, and it has done so at a fast pace (Mellander et.al, 2010). Malmö is an interesting city, it was once a thriving industrial city and it was an important place for shipyards and other heavy industry. The port of Malmö was a resource that enabled the city to grow and specialize in for example ship building. In the 1980's the city experienced a severe economic downturn and much of the heavy industry sector had to shut down,

people were left without any jobs (Mellander et.al, 2010). The future was not bright. Interestingly, there had been plans for building a bridge that would connect Malmö with Copenhagen, thus creating a link between Sweden and continental Europe (Löfgren, 2007).

Once the bridge was in its place, in 2000, the city embarked in a new direction. The bridge was the first step in the revitalization process. A university, new neighborhoods, shopping centers, a new train station, Cataltrava's Turning Torso (front cover), a renewing of the inner city's infrastructure are some of the projects that happened once the bridge was built. Why did this happen in Malmö and why did the new digital media sector grow so well in this city?

The central research question of this thesis is the following:

What factors attract and retain digital media firms in Malmö?

This question aims at understanding what factors that are the reason for the growth of Malmö's new digital media sector. Furthermore, this research aims at understanding if one of the approaches discussed above is the correct approach for Malmö, or if none of them is correct for the city in a new digital media sector development context. Is Malmö in need of creating a creative milieu that will attract individuals and consequentially firms, or does Malmö need to work the other way around and attract firms that consequentially will attract the work force?

1.2 Academic and societal relevance

In an academic context this thesis is relevant for the reason that there is not much research on Malmö's new digital media sector. Surely, the sector is young and it more or less started to develop only 14 years ago when the bridge opened, nevertheless, it is important to understand if theories on locational development and regional development are applicable to Malmö as well.

In a societal context, this thesis brings new insights on the situation in Malmö's new digital media sector, and on the city's creative industries as a whole.

1.3 Structure

The thesis is structured in such way. Firstly, an introduction to the existing literature on locational factors, creative cities and regional development will be

presented and discussed in a literature review. The purpose of the literature review is to give a contextual basis of the research. Secondly, the methodological approach will be presented and discussed. Thirdly, the empirical findings are presented and discussed. Fourthly, and lastly, the results from the empirical findings are compared to each other and a discussion in relation to the literature review is presented in order to understand if the theories discussed in this thesis actually reflect the empirical findings.

2. Literature Review

The purpose of this literature review is to give the reader an introduction of what the main thesis will discuss. Firstly, an historical approach on location theories is discussed. It is important to understand how research has developed in the context of making locations attractive. Secondly, the topic of creative cities is presented. The research by Landry and Bianchini (1995) on creative cities is the starting point of this research. Thirdly, the central point of this thesis is the distinction between hard and soft factors and which factors that make locations attractive. In this chapter, several different approaches are going to be discussed and this discussion is also the basis of the empirical research, presented in chapter 3 (methodology). All in all, the function of the literature review is to set the ground for this research by indicating and discussing which theories that are going to be tested later on.

2.1 Location theories

Research on location theories and discussions on why firms (and individuals) locate in certain locations, goes back quite some time. The scope of this thesis is not to outline and discuss the historical timeline of location theories. Therefore, the article by North (1955) will be a sort of first historical perspective on location theories. The forthcoming sections will then discuss location theories from a modern perspective.

North (1955) described how the “normal” sequences of development stages in regions did not actually reflect what was going on in American regions. The sequences that according to North (1955) were wrong consisted of five stages of development, briefly we are going to discuss those.

- (1) The first stage of development was the self-sufficient region where little investment and trade took place. People and production could simply be found in connection to natural resources.
- (2) An improved infrastructure in terms of transportation facilities enabled the region to grow. Still, the first stage was very much connected to the second.
- (3) The trade with other regions, due to the fact that the transportation infrastructure improved, grew and the production systems and their size consequentially grew as well.
- (4) The third stage was perceived as the end of agriculture. Diminishing returns and an increased population turned regions into industrialized locations. Secondary industries such as mining and manufacturing made their first appearance in the fourth stage.
- (5) Once the location was industrialized, it could specialize in exporting the goods that they had specialized in producing. This was seen as the final stage of development.

North (1955) did not agree with this theory of development. He argued that the stages could not give any insights of what caused growth and change. Several examples were discussed in the article supporting the argument that the “normal” stages of development, in fact, were wrong or highly misleading. One of the arguments was that the region of the North American Pacific Northwest (exporting wheat and timber) did not grow following the five stages of normal development. The success of the region and its growth depended on its ability to create great export

commodities (North, 1955). The importance of transportation set the ground for firms to grow, their location became important as a result of the connection that (train/water) allowed them to export to markets that were not geographically accessible without transportation.

North (1955) argued that, mainly, the improvement of the transportation system was the reason for why locations grew. However, transportation was not the only factor enabling certain locations to grow. Specializing in producing export commodities that other did not have was another crucial factor of growth (North, 1955).

Moving forward about 40 years, van Noort's and Reijmer's (1999) strategy study on location theory in the context of small and medium sized enterprises (SMEs), shed some light on the modern theory of location. Van Noort and Reijmer (1999) briefly explain the development of location theory, from what was written in the previous paragraphs, the classical location theory consisting of companies seeking the lowest transportation costs in order to lower their overall costs and maximize profits (North, 1955). Furthermore, they discuss what the neo classical location theory had to add, namely more awareness of the market and competition and the focus on both expenses and revenues, rather than the classical approach of lowering the expenses to the minimum (van Noort & Reijmer, 1999). The historical overview of location theory ended with the introduction on behavioral locational theory that in fact is what gets us closest to the modern scenario where companies and entrepreneurs take into consideration several places before deciding where to locate, many factors come into play (van Noort & Reijmer, 1999).

In their research, van Noort and Reijmer (1999) looked at two interesting factors that can be seen as the basis of why firms would, or not, locate in a certain location, namely push and pull factors. The push factors, such as lack of space or office spaces that are not suitable for the firm, will push firms away from a location. The pull factors work in the opposite way, factors such as sufficient space and strategic positions attract firms to move to a location (van Noort & Reijmer, 1999).

Van Noort and Reijmer (1999) stress the fact that there is a difference between small and large firms when it comes to push and pull factors. Many small firms are more often pushed away due to their small size, limited resources and so on. Larger

firms, on the other hand, tend to have a more stable situation and they also work with long-term goals, therefore push factors such as space might not be of a major concern, to begin with (van Noort & Reijmer, 1999).

van Noort and Reijmer (1999) conclude by stating that there is no such thing as a (one) location of the enterprise. There are many factors that weigh in on a location choice. A small size start up might not have the same location choice once it has developed and expanded; as well as a large sized firm might have a different location choice when downsizing, for example.

The brief introduction on location theory has been presented in order to further continue the discussion on creative cities and the location choice of firms in the new digital media sector.

2.2 Creative cities – what and why?

In 1995, Landry and Bianchini published a short book called “*The creative city*”. They were among the first ones to set the basic concepts of what a creative city is and why cities should become creative. Many cities are still undergoing a transition phase, from economies based on manufacturing to economies based on knowledge workers and innovative, creative firms. Creativity has always played an important role in the development of cities. Throughout history, different creative stakeholders were needed in order to push the development forward (Landry & Bianchini, 1995). Cities such as Florence, Vienna and London, were the melting pots of creativity and it became one of the main factors and force of their growth.

Landry and Bianchini (1995) argue that cities in the future will not compete on the basis of natural resources, but they will rather compete on the ability to become attractive places. The authors conducted their research almost 20 years ago and we can see that their predictions were correct. Many scholars have followed and they have argued that cities, especially those ranked among the creative cities, are relying on the creativity of individuals in order to grow (Florida, 2012). The discussion nowadays is about who attracts who. Are creative and talented people attracting firms or is it the other way around (Florida, 2002; Scott, 2006; Moretti, 2013).

Going back to Landry and Bianchini (1995), they discuss the shift in urban planning from an instrumental way of thinking to a creative way. Chaotic cities were organized by using an instrumental approach, the confusion and bad quality of life were turned into order and living standards significantly improved. However, Landry and Bianchini (1995) do not fully agree on the efficiency of the instrumental approach applied to modern cities, surely it is a way to organize chaotic situations. However, it limits the creativity, the instrumental approach has its rules and boundaries and in times of change, for example the shift from manufacturing economies to knowledge economies, it becomes more difficult to adapt to changes.

Cities are facing other challenges as well, not only is there a risk that an instrumental approach hinders creative growth, the role of politicians and bureaucracy are factors that can slow down and sometimes completely stop creativity (Landry & Bianchini, 1995). The political system consists of different levels, which means that things such as licenses and permissions will not get approved until the right individual

has signed the papers (Landry & Bianchini, 1995), often this individual is not the first one to receive notice on a license or permission, it has to go through a hierarchical system. Furthermore, cities and their local authorities might not see a “problem” in their growth, and therefore they would think that there is nothing to improve.

“If it ain’t broke don’t fix it” (Landry and Bianchini, 1995. p.25).

For city planners it is easier to think in terms of hard infrastructure such as roads and car parks. It is easier in terms of investments and expenditures, the amount of money invested in a road is compared with how many cars that are travelling there and the results will show if the investment was successful or not. Soft factors, on the other hand, are more difficult to measure and therefore, investments in soft factors are more difficult to justify. This shows how narrow-minded city planning can be, and yet another factor that is obstructing creativity (Landry & Bianchini, 1995). The discussion on soft factors will continue in the next chapters. However, it is important to see that soft factors are a topic of discussion that has a pivotal role in the definition of a creative city.

As mentioned above, Landry and Bianchini (1995) were among the first ones to really define what a creative city is. They developed a list of 12 key elements that cities should strive for in order to become a creative city. These elements not only show what a city should do in order to become creative, but they also show what the benefits are.

(1) Reassessing success and failure: Failures from the past can be used in order to understand what should be improved in the future. There has to be a tolerance towards failure and it should be seen as a tool for learning rather than pure failure.

(2) New indicators of success: Cities can make use of quality indicators to assess the success and failure of policies.

(3) Handling capacity: A city needs a holistic approach in order to encourage creativity to flourish.

(4) Making most of the creative individuals: The attitude towards creative workers has to be positive, tolerant and supportive.

(5) The contribution of immigrants: Immigrants are functioning as the balance between identity and integration. Therefore tolerance towards this group of people is important.

(6) Using catalysts: An example of a catalyst could be a public space that is being used by different types of people in order to encourage interaction.

(7) Balancing cosmopolitanism and localism: It is about finding a balance between a strong local identity and an image that can attract an international audience.

(8) Multiculturalism and interculturalism: This is an important point. Interculturalism is about finding bridges between different cultures instead of separating different cultures through multiculturalism. Tolerance plays an important role here.

(9) Participation is more than a slogan: People tend to be more active in their participation if they are considered stakeholders.

(10) Developing creative spaces: Cultural amenities and cheap spaces are key elements in the developing process.

(11) Early winners and staging posts: A sparkle of creativity can initiate a process of development, this sparkle could be a festival, a building or even new regulations.

(12) Rethinking urban management: In the shift to the new economy, new ways of doing things have appeared, there is a need of adaptation to this new environment.

The elements above are part of a greater picture and they show how small changes can contribute to the growth of cities. Many factors point at the importance of tolerance, something that Florida (2002) uses in his theories of urban development; elaborated in the forthcoming chapters. All in all, these elements show that there is a need to think in new ways. Different people, with different skills are encouraged to talk and collaborate with each other in order to create a milieu that will transform the city into a creative city.

2.3 Locational factors

In this section the discussion on what makes a specific region attractive will be introduced. The main question that will function as the basis of the discussion is the following: Are people following jobs, or are jobs following people? This question aims at understanding why people work in certain locations and why firms chose to move, or not to do so. Scholars have proposed different answers to the questions.

2.3.1 Hard and soft factors

One of the main goals of this thesis is to understand the role of hard and soft factors in attracting and retaining firms in the creative industries, more specifically firms in the new digital media sector. This section will elaborate on the discussion about hard and soft factors and furthermore look at research that compares the importance of hard and soft factors. Moreover, a more clear definition of hard and soft factors will be presented in this section.

Murphy and Redmond (2009) conducted empirical research on the factors that attract and retain creative workers in Dublin. The authors found striking results. Firstly, the most frequent answer to why creative workers chose Dublin as a location for work was mainly because of hard factors such as employment opportunities, family and relatives and place of birth. This suggests that the soft factors did not really play a role in people's decision making. However, the results are striking because of the fact that workers chose Dublin mainly based on hard factor, yet the same workers were highly dissatisfied with Dublin's hard factors (Murphy & Redmond, 2009).

Murphy & Redmond (2009) have categorized several factors under two categories, hard and soft. Their categorization is in line with what this thesis is discussing and it is therefore highly relevant to shortly describe their categorization.

Table 1

Hard Factors	Soft Factors
Public services: Street safety, policing services, social security, health services.	Cultural and Leisure Facilities: Festivals, galleries, museums, cinemas, shopping facilities, sports facilities.
Transport infrastructure: Public transport, transport within the city, transport connectivity between the city and the periphery, bicycle lanes.	City environment: Cleanness of the streets and parks, footpath conditions, noise pollution, congestion, recycling services.
Cost of living: Housing and related services, food and beverages, leisure activities, transportation.	Tolerance and openness: Immigrants, visible minorities, different sexualities, different socio-economic status

(Murphy & Redmond, 2009. p74)

The main difference between hard and soft factors is on the line of tangible and intangible; hard being tangible and soft intangible. However, several soft factors appear to be in a very thin line between hard and soft. The sub-category *Cultural and Leisure Facilities* contains several factors that could actually be categorized as hard. Festivals, cinemas, museums, restaurants, sports facilities and shopping facilities could not exist without the overlap of hard factors. All of these facilities are in need of a sort of infrastructure in order exist and the reason for why these are categorized as soft is assumedly due to their content. Also in the hard factors category we find the thin line between tangible and intangible. The sub-category *Public Services* includes, among other things, street safety. This specific factor could be defined as soft as well, if we think of it as the atmosphere of safe streets.

This thin line between soft and hard factors shows how blurry the distinction sometimes can be. One of the aims of this research is to find a better and more

common understanding of what soft and hard factors are. Defining hard and soft factors is crucial if we want to understand their role in the development of locations.

Murphy's and Redmond's (2009) research show that soft factors are indeed highly appreciated among the creative workers in Dublin. However, the great dissatisfaction that Dublin's creative workers show towards the city's hard factors changes the scenario and it raises the questions: Why would anyone move to a city if the hard factors are not satisfying enough? Can a city merely focus on soft factors in order to attract talented people and not invest in hard factors, at all?

Yet another interesting finding in the research by Murphy and Redmond (2009) is the fact that creative workers in Dublin, and especially the younger generation, did not intend to spend long time in Dublin. The young generation of creative workers is in a way the future of the city and it should therefore be on top of the agenda to retain these people; something that Dublin is not able to do. The authors suggest that the great dissatisfaction with the hard factors might be a cause of the migration of talented people. The negative externalities of a weak infrastructure, bad public transport and other not well-developed hard factors are simply stronger than the positive externalities that soft factors generate and therefore, talented workers move out of the city (Murphy & Redmond, 2009).

Murphy and Redmond (2009) did not merely have negative conclusions on the situation in Dublin. They were not so sure that the great dissatisfaction that the creative class had towards hard factors would actually make them move; and as a consequence to a hypothetical moving of creative class people there might be a new class of young creative workers that will settle down in Dublin. Defining what makes people move or stay is complex, we cannot merely focus on hard and soft factors, there are many other socio-economic aspects that play a role in the decision making (Murphy & Redmond, 2009).

2.3.2 Localization and urbanization (economies)

To continue and elaborate the discussion on locational choices, both by individuals and firms, the theories on localization and urbanization (economies) will be introduced. Lorenzen and Frederiksen (2008) discuss both definitions and they argue for the importance of the mix between them in the context of cultural firms. Firstly, localization simply defines the clustering of firms in one location; localization economies are the positive externalities resulting from clustering. Urbanization, on the other hand, is in a few words the urban location of choice, while urbanization economies are the positive externalities resulting from being located in a city or urban area (Lorenzen & Frederiksen, 2008). The reason for why these theories are worth being discussed is due to the fact that firms, depending on what they are doing, depend on one, or both, of them.

Localization economies, as stated before, are the positive externalities resulting from co-locating close to other firms. Localization economies are related to the regional specialization of a region, and the positive externalities could for instance be: knowledge spillovers. Several firms could cluster outside of cities in order to benefit from these positive externalities. Other positive externalities that arise from the co-location of firms are project collaborations (both short and long term) (Lorenzen & Frederiksen, 2008). However, clustering does not only take place outside of city centers, for an array of reasons it would be cheaper for firms to locate outside of urban centers due to lower costs of operating and because of the aforementioned localization economies. However, some firms choose to locate in urban centers, despite the fact that it probably cost them more to operate in cities.

Urbanization focus on one specific place, one specific city or urban center. Localization usually consist in one kind of cluster locating outside the city; cross-sector spillovers might not be as likely as in urban areas due to the fact that we see one-of-a-kind clusters when discussing localization (Lorenzen & Frederiksen, 2008). By locating in urban areas, cities, firms can find themselves close to other clusters that might not be in the same business. Moreover, the closeness to these other clusters could give firms a chance to collaborate with partners that they would not have found in other areas than cities (Lorenzen & Frederiksen, 2008). Furthermore, another positive externality of being located in cities is that of being close to educational institutions. Major universities are very rarely located outside of cities and if firms are

looking for future employees that are about to graduate, then it would be a better strategy to locate the firm in the same urban area (Lorenzen & Frederiksen, 2008). If we look at global cities, we can see that universities and the head quarters of many big firms are in the same city. For example, the Rotterdam School of Management is in the same area as the head quarter for many multinationals, such as Unilever and Shell. These multinationals can easily attract students since they are located in the same city.

Lorenzen and Frederiksen (2008) discuss three different types of product innovation and what sort of clustering that they need. Products that experience a variety innovation, meaning that the product is not really new but rather an upgrade to something that has already been done, are in need of clustering (localization). Products that experience novelty, meaning that there is something new created out of already existing ideas, are in need of urban clustering (localization and urbanization). Finally, products that experience radical innovation, meaning that something completely new is created, are in need of clustering in global cities (localization and urbanization in big cities) (Lorenzen & Frederiksen, 2008).

The discussion on what sort of clustering that is needed for different firms and their product development shows that both localization and urbanization are important, they often co-exist with each other. The positive externalities resulting from co-location (localization economies) and sometimes doing it in cities (urbanization economies) is an interplay that allows cities, and mostly global cities, to develop and gain advantages that other smaller cities cannot achieve (Lorenzen & Frederiksen, 2008).

2.3.3 – What are the attraction forces, urban amenities or clusters?

The previous section discussed the interplay between localization economies and urbanization economies. Simply put, there are different benefits to be gained by

co-locating close to others. Depending on the type of firm and its output, there might be different reasons for locating in a certain place, and it is not to be taken for granted that agglomeration economies (either localization or urbanization economies) are the main attraction force (Wenting, Atzema, & Frenken, 2010).

Wenting et.al (2010) conducted research on the Dutch fashion industry and more specifically, they studied the motives for firms in the fashion industry to locate in Amsterdam. The Dutch capital is considered to be the hub of fashion in the country, which approximately one out of four fashion designers located in the city.

By conducting a quantitative study based on questionnaires, the researchers were able to collect data showing why fashion designers had chose Amsterdam as their location to conduct business. Wenting et.al (2010) analyzed two kind of factors to determine what made firms move to Amsterdam; firstly they analyzed the business motives, agglomeration economies resulting from being located in the cluster of fashion designers. Secondly, personal motives, such as urban amenities that the city of Amsterdam offers them.

Interestingly, the personal motives scored higher than the business motives, indicating that agglomeration economies did not play the most important role in attracting fashion designers to the city (Wenting et.al, 2010). The success of Amsterdam fashion designers, measured financially, did not occur due to agglomeration economies, the findings indicate that other factors such as networking with others in the city, as well as outside the city, and the previous gained experiences played a more significant role in the success, financially speaking, of fashion designers (Wenting et.al, 2010).

Wenting et.al (2010) argue that co-locating will not automatically make firms more successful. Networking within, and well beyond the cluster is necessary as well. Firms and entrepreneurs in the fashion industry consider personal motives such as the residential environment, before moving to a certain location. Nevertheless, it is important to remember that urban amenities are not the sole ingredient and attraction force, as Wenting et.al (2010) state, it is a supplement to cluster theories, such as those mentioned in the previous chapters. The interplay between agglomeration economies and urban amenities is to some extent reminding us about the interplay between localization economies and urbanization economies (Lorenzen & Frederiksen,

2008). Neither one of the factors in these two interplays could function alone, but rather in a balance between them.

2.4 Buzz – when (co)-location matters

“It is unsurprising that people in a buzz environment should be highly productive” (Storper & Venables, 2004).

Looking at what actually goes on in specific environment is interesting. Previous chapters discussed the differences between the soft factors-approach and the hard factors-approach and between localization and urbanization, however, we need to understand more in depth what is going on in these environments, regardless of the approach taken.

Storper and Venables (2004) discuss something called “buzz” and the role that face-to-face (F2F) contact plays in this context. Firstly, the authors mention that when an industry is agglomerating in a specific location, there are benefits to gain both for the firms and the workers. A clustered industry offers future employees the scenario of different companies, within the same industry, located in the same area. Therefore, individuals looking for jobs would have access to potential employers without the need to re-locate themselves; and employers can attract future employees by using the strategy of clustering with other companies and thus strengthen the local industry (Storper & Venables, 2004).

Another factor comes into play in this clustering process, namely knowledge spillovers. Storper and Venables (2004) use the definition of “knowledge rubs”. Places with a high amounts of knowledge workers benefit from having these kind of workers in the same location because they will get in touch with each other, and here is the importance of F2F, and thus create these knowledge rubs or knowledge spillovers (Storper & Venables, 2004).

On an individual level, F2F has four main features. Firstly, it can be used as an efficient communication technology; secondly, it is an effective solution to incentive problems; thirdly, it can be used to facilitate socialization and learning, and fourthly, it is a psychological motivation (Storper & Venables, 2004). It is important to remember that the authors are discussing the personal benefits to be gained from F2F. This thinking applied to the new digital media sector, as an industry, is only scrubbing the surface. The four main features are basically stating that despite all the technological development, F2F is still important in many aspects of the business environment/buzz. It is not easy to understand in depth how the four features can be applied to a sector, such as the new digital media sector. It is however important to understand that these features might be the basis when creating a sustainable cluster,

and that the individuals within the cluster do take into considerations the four features mentioned by Storper and Venables (2004).

Interestingly, the article touches upon the whole Florida (2002) discussion on creative places. Florida (2002) argues that a highly tolerant and open place will attract the creative class (knowledge workers, amongst others) and this will create an environment that is characterized by creativity and a growth in employment due to the fact that firms want to move to these sort of places where creative workers clusters. However, Storper and Venables (2004) take a slightly different approach than Florida (2002). They show that the buzz that is created due to the clustering of firms and it is mainly reflected on a firm and industry level. As an example they mention several cross-fertilizations between specialized networks. In Washington DC, USA, we can see how the high-tech industry has cross-fertilized with the government and created a high-tech cluster (Storper & Venables, 2004).

Furthermore, the authors discuss how buzz cities are mostly associated with globalization and this is an interesting point if compared to the city that is being studied in this research, Malmö. Buzz cities are very important in the contexts of developing international business, cultural networks, and they are characterized by high levels of both high and low skilled immigrants (Storper & Venables, 2004). Ever since the opening of the bridge Malmö has developed in the mentioned aspects. The proximity to Copenhagen has made Malmö the node that connects Sweden with Denmark and consequentially with the European continent. The city of Malmö has among the highest numbers of foreign-born people in the country and it shows a great openness to different cultures and nationalities (Mellander et.al, 2010).

Due to its relatively small size, Malmö might not be ranked amongst the big globalized cities in Europe and in the world. However, the discussion that Storper and Venables (2004) are proposing shows that a city like Malmö indeed is a buzz city. Looking at the new digital media sector, we can definitely see a clustering of firms and a buzz around this clustering that is connected, not only to the firms in the cluster, but also to the university and the whole regeneration of the city, embracing the knowledge economy (Mellander et.al, 2010).

2.5 Soft factors are attracting workers

Richard Florida's (2002a; 2002b; 2012) theory of the creative class has been one of the most influential topics in the context of creativity and urban development

for the last decade. His book, “*The rise of the creative class*”, was first published in 2002, a revisited version was released ten years later, in 2012. This thesis will discuss the revisited version of the book. However, the empirical findings by Florida in 2002 will be compared to the empirics presented in 2012.

2.5.1 The creative class

The concept of the creative class is divided in two subgroups, the creative professionals and the super-creative core. People working in knowledge-intense industries represent the creative professionals. Workers in high-tech, financial services, health care and business services/management are some examples. The main characteristic of this subgroup is that they engage in problem solving activities in their work. Those that are highly dependent on their creativity in order to perform work duties represent the second subgroup, the super-creative core. Scientists, engineers, professors, artists, actors and entertainers are some of the occupations of this class (Florida, 2012).

There are many critics disagreeing with Florida’s class definition. Mostly, the critics argue that the definition is too broad and that basically a college or bachelor’s degree is enough to be included in the creative class; more about the critics will follow in the forthcoming sections. Florida’s (2012) response to these claims is that actually, four out of ten workers in the creative class do not have a degree. They are more or less self-made creative workers. In order to support this statement, Florida (2012) lists three core values that characterize the creative class workers.

- (1) Individuality: creative workers are aiming at producing or creating something that reflects their individual creativity. They are in most cases not prone to engage in activities that require several people in order to achieve the objective.
- (2) Meritocracy: The creative class is a hard working class. They have goals to achieve and they aim at fulfilling their achievements.
- (3) Diversity and openness: This is probably one of the most important values. Creative class workers look for places where everyone is welcome, where discrimination does not exist. Since workers in this class are quite mobile, they might change work locations several times during their careers and

this makes them newcomers in the places where they relocate. Therefore, openness towards “newcomers” is important.

The core values of the creative class show that the indeed, this class definition is very broad and therefore it includes a wide range of occupations and people.

2.5.2 The creative class, 2002

In an article from 2002, after the first edition of his famous book was released, Florida presented empirical findings on the creative class. The main topic of discussion in the article discusses the relationship between talent, diversity and attractiveness of locations. Florida (2002b) argues that talented people, those that have a bachelor’s degree and above, are attracted by an environment that offers different amenities that suits their needs and most importantly an environment that is tolerant towards diversity, in other words, soft factors play a significant role in creating attractive locations. As a consequence of the presence of talented people in a location, firms, Florida (2002b) looks a high-tech firms, will move to the location since they are attracted to the talented workers. In this process, Florida (2002b), describes the role of talent as an intermediate variable that attracts high-tech firms and these firms generate higher regional incomes.

In the article, Florida (2002b) presents three main findings, namely the correlation of talent with diversity, coolness and culture. The diversity index shows the amount of gay households in a region. This index is a good indication of how open a location is to minorities. The coolness index shows the percentage of a young population (22-29 years) and the number of nightlife amenities such as bars and clubs per capita. The cultural index shows the amount of art galleries and museums per capita (Florida, 2002b). These three main findings show that talented people are attracted to vibrant places (coolness), places with cultural amenities rather than recreational or climate (culture), and most importantly by diversity.

The talent-diversity correlation is the one that shows the strongest relation in attracting talented workers. The results show that these people are looking for places that are characterized by high rates of demographic diversity and by low entry barriers. These places would be locations with gay communities and communities of people from different backgrounds. It could be places that show a general openness to new citizens and that there are no discriminations against anyone based on sexual

preferences or place of birth. In other words this would be a multicultural city that is not excluding anyone (Florida, 2002b).

As stated earlier, talent is an intermediate variable that will attract firms and thus generate higher regional incomes. Florida (2002b) presents two findings to support his statement. The first one is that talent is closely correlated to high technology industries and the second one is that high-technology industries are closely correlated to locations with high levels of diversity.

Florida (2002b) is arguing that jobs are following people, so firms would, according to him, move to locations that are characterized by openness, coolness and most importantly, diversity because that is where creative and talented workers can be found. Florida (2002b) argues that firms in the knowledge-based industries are not considering traditional factors of location such as land costs, labor costs, tax rates and government incentives. These firms want to attract highly educated, talented, people to work with them. Therefore, they will set up their business in locations where large pools of talented people are living, even if the costs of setting up a business are higher than locations where the labor force has low educational levels. They do so in order to minimize the costs of looking for workers, and since talented people, according to Florida, can be found in specific places, then it makes sense for firms to set up their business in the same location.

In order to attract workers and firms, cities should begin with creating an environment that will attract talented individuals (Florida, 2002b). An environment that is characterized by openness, diversity, a variety of amenities and low barriers to entry, will not only attract talented workers, but also retain those that are already there. Florida (2002b) argues that locations should invest in creating an environment for people rather than creating an environment for firms, because in the end, firms will follow people. Furthermore, Florida (2002b) stresses the importance of diversity. It is not merely a social goal, to strive for a place that is open to everyone, it is also a financial goal, because diversity attracts talent and talent attracts firms thus contributing to the overall growth of a region.

2.5.3 The creative class, 2012

It has been more than a decade since Florida presented the theory on the creative class. The findings discussed in the previous section should be compared to

more recent studies to understand if the situation has changed and if so, the reasons behind it. Furthermore, the chapter on soft factors and Florida's theories on attractiveness of places will end with the following section on the 3T theory.

2.5.4 Locational development – 3T theory

Florida (2012) did not find any highly surprising findings in the revisited version. The correlation between talent, technology and diversity is still valid, and even more significant today, than it was a decade ago. Florida (2012) goes on and discussed the impact of the financial recession that occurred in 2008, on the creative class. He shows that the jobs among the creative class did decline, but the decline was not even close to that of the working class and the service class, to not mention the agricultural class. In fact, the first edition of the book stated that the creative class more or less represented 30% of the total workforce in the US; it has now grown to almost 50% of the total workforce (Florida, 2012).

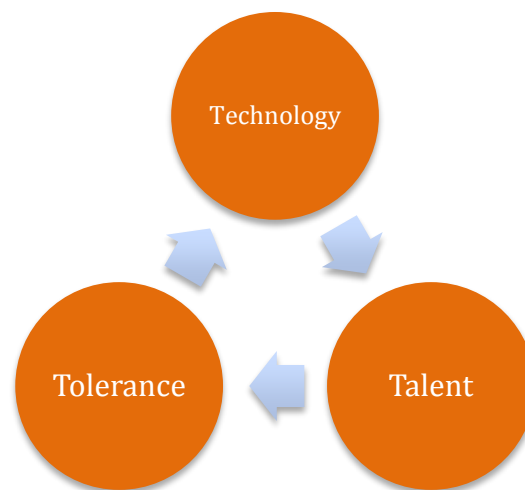
In the previous sections the discussion has been on what the creative class actually is, what defines it. Furthermore, the discussion has touched upon correlations between talent and diversity, coolness, culture and technology to show that talented (creative) people and workers attract firms to their locations. The remaining topic to be discussed is what makes places grow. What are creative and talented people attracted by? This is an important question because according to Florida's (2012) theories, once the talent is at place, the firms will follow. When workers and firms are in the same location, the phenomenon of clustering occurs. Following Florida's (2012) line of thought on clustering, he states that the real forces behind it are not the firms, but people (Florida, 2012. p189). Once again, supporting his theory on the fact that jobs follow people.

Florida (2002) has developed a framework called the 3T theory; technology, talent and tolerance. This theory explains why some places grow and why some do not. Technology, talent and tolerance are three factors that have to be present simultaneously, they depend on each other and cannot function independently.

Technology is the factor, or force, that in a way is the most obvious to understand. Technological development is a key to growth. Talent, more specifically talented people, are those with a bachelor's degree or higher and they are the source of highly skilled human capital. The third T, tolerance, is the factor that Florida

(2012) states to be highly important, if not the most important of this 3T framework. Talented workers, or as Florida (2012) defines them, creatives, are highly mobile. It was mentioned above as well, they are looking for places where newcomers and minorities are welcome, places with a general feeling of openness and tolerance towards others. A place that is open in that sense, will most probably attract the kinds of people that are the reason behind economic growth of that specific region (Florida, 2012).

Figure 1 – The 3T's model (own elaboration)



As Figure 1 shows, the interplay between the three T's, creative workers and firms, is a requirement for places to become attractive. Florida (2012) stresses the fact that the three T's environment should firstly focus on the people, the creative workers. They are the reason for why firms would move to a certain location and thus contribute to the overall growth of a region. One T is not enough; they cannot function independently, it is important to find a balance between the three T's. The coming section of this literature review will present a different approach to urban development. More specifically focusing on the importance of hard factors, in contrast to Florida's (2012) discussion on the importance of soft factors.

2.6 Hard factors are attracting workers

This chapter will first and foremost discuss what scholars, and critics to Florida, argue about urban development. So far, the discussion has touched upon the notion of the creative class and what its relation to urban development. Florida (2012) is continuously stating that creative workers are the sparkle of urban development.

Once these people find a place that suits their needs and they establish themselves there, consequentially firms will follow and this will lead to an overall development of the location.

“Creativity is not something that can be simply imported into the city on the backs of peripatetic computer hackers, skateboarders, gays and assorted bohemians but must be organically developed through the complex interweaving of relations of production, work, and social life in specific urban contexts” (Scott, 2006, p.15).

The quote is a critique to the theories that Florida (2002) is proposing, presented in the previous section. Storper and Scott (2009) are arguing that diversity surely increased during the past century and that most cities in the western world have increased their levels of tolerance. However, diversity is not necessarily a factor that will attract creative workers to a certain location and thus make that location grow. The talented people that Florida (2002) defines as part of the creative class are usually not part of the society as a whole. For example, in many cities, these talented people usually live in high-end suburbs and furthermore high levels of the “same” kind of people characterize these suburbs, making them less diverse. Storper and Scott (2009) argue that these people do not take part of the diverse and tolerant society, because they are segregated in their own homogenous neighborhoods. Therefore, according to Storper and Scott (2009) the arguments that Florida (2002) proposes with his indices on bohemians, tolerance and diversity do not really reflect reality.

Storper and Scott (2009) lead us to their main point, that locations should attract firms that consequentially will attract talented people. They do state that human capital is an important factor for urban growth, however, it is not the starting point and it cannot be perceived as an independent variable. We have to understand the context in which urban growth is taking place and the relation that talented individuals have to the local production system. Storper and Scott (2009) claim that in urban areas we do not witness a random selection of workers, but in fact we observe specific workers working in specific sectors. This statement can be translated into the notion of clusters, certain areas show that firms doing more or less the same things cluster. The process of creating a vibrant place for people to live in, with amenities that satisfy their needs is an endogenous process, rather than, as Florida (2002) would say, an exogenous process.

The reason for why talented people would move to certain areas is because of the presence of firms and therefore the possibility to find a job. Storper and Scott (2009) describe the case of New York during the late 1970's when its economy was declining. The reason for why people moved to New York was not because of the amenities that the city offered but rather because of the restructuring of the local economy. The city made it easier for firms, through various trade liberalizations, to set up their businesses there and this attracted people to find a job in the city because of the presence of these new firms. The fact that firms attract talented people, and not the other way around, does not exclude amenities as an important factor, it is still part of the entire picture to offer amenities in order to attract talented workers (Storper & Scott, 2009).

People that can be found in the creative class definition have in most cases spent a lot of time in acquiring their knowledge and skills, usually during long-term educations in order to obtain graduate and sometimes postgraduate degrees. When these individuals are looking for places to work, they take into consideration the fact that they want to apply their skills and knowledge, the time they spent studying has to pay off with a job that suits them. A location might offer good climate, diverse community and high levels of tolerance, but if a talented worker cannot find a job that suits his or her skills then he or she will not find this place attractive. Storper and Scott (2009) support this discussion by showing the example of the growth in the Sunbelt region in the USA. The region did not grow merely because of climate conditions, diversity and tolerance, but mainly because of the economic restructuring that the region was going through. New growth opportunities were present in the region and the firms that established their businesses there attracted talented workers.

We can see that the growth of certain areas depend on several factors, both amenities and jobs have to be present in order to attract people. Scott and Storper (2007) continue the discussion on the matchmaking between talented people and jobs, they state that firms, in order to avoid the problem of not finding skilled people, need access to potential talented workers. This is somewhat in line with Florida's (2002b) argument that firms are looking for pools of talented workers. However, if talented workers cannot find a place that can give them long-term employment security, they will then look for places where firms are already established. This is a sort of game of balance, firms looking for workers and workers looking for firms.

Factors such as production systems (employment) and the urban cultural environment (amenities) are connected to each other and both are needed in order to attract talented people and thus achieve urban growth (Scott, 2006). Local economic development programs that aim at attracting firms are more and more developed in combination with cultural development programs. This allows locations to plan for both the hard factors, such as where talented people will work, and soft factors, such as cultural amenities (Scott, 2006). Once again, Scott (2006) stresses the fact that creative or talented people are not the sole ingredient to urban growth, their presence will not magically make a city grow. As explained above, it is a complex system that consists of various interrelated steps. Scott (2006), Scott and Storper (2007) and Storper and Scott (2009) are arguing that creativity and talent needs to be mobilized and thus lead to “real” outcomes in terms of jobs. Their argument differs from Florida’s (2002) theories in the sense that Florida (2002) is for the “people attract jobs-theory” while Scott and Storper are for the “jobs attract people-theory”.

2.6.1 The new geography of jobs

Moretti (2013) has recently published a book called, “*The new geography of jobs*”. He is following Scott’s (2006) line of thought on what makes cities attractive. However, he does also occasionally support Florida’s (2002; 2012) arguments. Interestingly, Moretti (2013) is focusing on the balance that cities need to aim for in order to grow. In his research he distinguishes between two approaches to growth, demand side and supply side. He is not taking one definite standpoint on which side he stands, either Florida or Scott, but he rather seeks to find a balance in urban development.

The first approach, demand side, is about attracting innovative firms to a city and the firms will consequentially attract talented workers and firms. Firms can be attracted to a place that offers them tax incentives and regulations allowing them to set up a business without too much hassle. Another factor that could attract firms is the presence of talented workers, or as Moretti (2013) puts it, a thick labor market and other firms, clustering. The second approach, supply side, is more or less what Florida (2012) argues for. Talented workers need to be attracted and later on the firms will follow these workers. The supply side approach suggests that there is a need to create an environment for the workers by offering various amenities.

These two approaches are overlapping and that is the balance that Moretti (2013) is trying to define. Workers are moving to certain locations because they know that there are chances to find a job there because of the presence of firms. Firms are moving to certain locations because they are looking for thick labor pools of talented workers. Both parties are looking for each other and it is a constant game of balance.

Moretti (2013) discusses three forces of attraction, locational factors that will attract innovative and creative firms and creative workers. The discussion is focusing on the importance of innovative clusters and Moretti (2013) stresses the importance of clusters by stating that specialized workers (he uses the example of high-tech workers) do not move to cities that are not offering any jobs and firms do not move to cities where specialized workers are not present. The three forces of attraction that the balance is based on are: (1) Size matters, (2) Ecosystem and environment and (3) Knowledge spillovers.

Once companies start to cluster they tend to strengthen the cluster and thus make it more difficult for other competitors, other cities, to keep up (Moretti, 2013). The size of a city does matter in the sense that workers are looking for alternatives, they are looking for different places where they can work, they look within the same city and preferably they would not have to move in case they change job, and firms are looking for cities with thick labor markets, they want to have an extensive selection of potential employees.

Moretti (2013) interviewed several firms in the Silicon Valley and asked them why they were located there. There is a simple answer to the question. Firms will locate where the action is going on. Clustering benefits them, they can exchange ideas

with other companies over lunch or by simply running into each other (Moretti, 2013). Going back to what Lorenzen and Frederiksen (2008) discussed, we see a resemblance of the two theories. The clustering of firms, and its benefits, that Moretti (2013) discusses is basically the localization and urbanization, and their economies, that Lorenzen and Frederiksen (2008) propose. Depending on which cluster that we are discussing and in which area it is operating, urbanization and localization economies are part of this context.

The ecosystem and the environment of clusters, such as Silicon Valley, show that there are knowledge spillovers in the sense that firms can exchange information, learn from each other and so on. Moretti (2013) also showed that workers (in Silicon Valley, where his sample worked) from different firms meet for leisure activities and that they talk about their jobs and sometimes these simple talks turn out to be future business ideas. It would not have been possible if these workers and firms did not cluster close to each other (Moretti, 2013).

Moretti (2013) does however not fully agree with Florida (2012), and his line of thought is more on the demand side approach. He discusses the case of Berlin, a city that is recognized as being a tolerant, artistic and all in all, a creative city. Fulfilling the requirements of Florida's (2012) 3T theory. Moretti (2013) shows how amenities, cultural in this case, did not help the city grow. Berlin still has one of the highest unemployment rates in Germany.

“Glamour is not enough to support a local economy. Ultimately a city needs to attract jobs. This does not mean that quality of life does not matter” (Moretti, 2013. p192).

A strong local economic system is often the factor that enables cities to grow. A city that is characterized by a solid economic system can attract innovative firms and talented workers and consequentially clusters will be created strengthening the entire community (Moretti, 2013). In many cases, the problem is not to find talented workers. Italy, for example, has a great amount of talented workers that are unemployed. The problem is the economic system that does not help these workers to find a job, there are no incentives for innovative firms to set up their businesses and give the talented workers a position (Moretti, 2013).

2.7 What are creative workers looking for?

Researchers are discussing the importance of cultural amenities in order to attract creative and talented people to a certain location. Florida (2002b) particularly stresses the fact that amenities are important, creative workers are looking for particular places that can offer them a cool and hip lifestyle. Scott (2006) argues that first of all workers look for a place that is offering jobs and that the amenities is part of an endogenous development process. Interestingly, none of the authors go into depth on what sort of amenities that creative workers, or firms, are looking for. Bille (2010) conducted research in Denmark and she studied the amenities that creative workers are looking for, compared to people that are not considered to be creative

workers, outside of the creative class definition. It is important to remember that the definition of the creative class is rather broad. The scope of this thesis is not to discuss the entire creative class but to focus on one specific sector and its creative *workers*.

Bille (2010) presents two main findings, one is a finding on what amenities that the creative class (includes both creative professionals and the creative core) uses to a higher degree than other classes, such as the service class, working class and agricultural class (Bille, 2010). Attending contemporary concerts, visiting art museums and exhibitions, visiting cultural heritage locations, practicing regularly in sports and using Internet services are among the amenities where the entire creative class is using to a higher degree than the rest of the entire labor force.

The second findings present data that looks more in depth into the creative class, more specifically the creative core. There are certain amenities that this part of the labor force is making use of to higher degree than all the rest. Creative self-expression, participating in non-institutional fitness activities, literature and knowledge, visiting libraries, visiting scientific and heritage locations and attending classical art forms are among the amenities that the creative core are looking for.

The creative core distinguishes itself from the rest by showing that they are participating in more creative activities, not only during their working hours, but also in their leisure time. Furthermore, the activities that they participate in usually involve them as active participants rather than spectators.

Bille (2010) concludes that cities need to supply amenities that attract both the creative class in general and the creative core in particular. As stated earlier, she is following the line of reasoning that Florida (2002) is using, however, there is a main point missing in the article. The discussion is merely on what sort of lifestyle that creative workers are looking for, the author does not discuss where these people work and why they would work in certain places, or why firms would move or not move. Since her ideas are very much influenced by the Florida thinking of urban development, she might assume that a place first of all needs the creative workers and that consequentially firms will move there.

2.8 Malmö – Creative cities and creative clusters

In 2010, Mellander et.al published a report called “*Skånes kreativa kapacitet – talang, tolerans och den kreativa klassen*” (Scania’s creative capacity/resources – talent, tolerance and the creative class). The title reveals that Richard Florida’s (2002) 3T theory was a major source of inspiration and the authors discussed each of the three T in depth, presenting data for every municipality of the region. The numbers presented in the report show that Scania has higher rates of creative people than the national average; the authors compared data from 2001 to 2008. However, the Scania region is highly diverse and the findings clearly show that some parts of the region are more characterized by the 3T’s than others. The southwest parts of the region, where Malmö and Lund are located, are the parts with the highest rates of the creative class. According to the authors, this is due to the fact that Malmö and Lund are big cities

with an infrastructure that attracts the creative class. Lund is well known for its university and Malmö is the most culturally diverse city in Sweden in terms of nationalities present in the city, with the highest amounts of non-Swedish people (Mellander et.al, 2010).

One of the limitations of the report was that the authors did not explain the flows of the creative workers that are present in the region. Interestingly, they do state that between 2001 and 2008 there was a rise in the amount of creative workers and firms, even higher than the national average. However, there is no discussion on where these workers came from and there is not a discussion on the effect that the Öresund Bridge had in the increased amount of creative workers and firms.

Benneworth et.al (2009) and Hospers (2006) are all mentioning the importance of the educational institutions located in the region, and particularly the ones on the Swedish side, with Lund University as the flagship. According to the authors, people do not only take into consideration the objective characteristics of a place where they might want to live, but also the subjective image portraying it (Hospers, 2006). This puts the Malmö region, including Lund, in a favorable position in attracting the creative class. The infrastructure and the place it self, characterized by academics and the multi-cultural ambience, lays the ground for a community of creative professionals and super creative workers. Florida (2005) defines the super creative core class as scientists, engineers, university professors, poets and novelists, artists, entertainers, actors, designers and architects. People that work with creative problem solving represent the creative professionals and they can be found in sectors such high-tech, business management, financial services and healthcare.

Continuing the discussion on infrastructure for the creative class, the Malmö-Lund region is home to four important creative clusters for new digital medias. MINC, Media Evolution, Mobile Heights (Lund) and Medea. (Henning et.al, 2010). These clusters show that Malmö is an attractive city in terms of new digital media industries and that companies are clustering there. The clusters mentioned above are all operating as incubators, which means that within these firms there are many other start-ups. The 2012 OECD Territorial Review revealed that in general, clusters in Scania are doing exceptionally well in increasing their international dimensions. This could be a factor that attracts firms and creative workers to cluster in Malmö.

Furthermore, these clusters (except for Mobile Heights, located in Lund) are all located in the old port area of Malmö, Västra Hamnen. After the decline of the heavy industry in the 1970's and 1980's, buildings remained empty for a long time. Several creative clusters, as well as the University of Malmö founded in 1998, saw an opportunity and moved in to these empty spaces and filled them with knowledge and creative industries (Henning et.al, 2010). They are part of the revitalization process that was mentioned in the introduction, it remains to be investigated what role the opening of the bridge had on the development of this industry.

2.9 Conclusion

As discussed in the literature review, there are no right or wrong approaches when it comes to what makes locations attractive. The main point of discussion of the literature review has been the differences and overlaps between hard and soft factors. We can see two main lines of thought. Firstly, the soft factors line of thought is stating that urban amenities, and the individuals making use of those amenities, are the sparkle that will ignite the growth of a location (Florida 2002; 2012). Secondly, the hard factors line of thought supports the arguments that firms are the sparkle to the growth of a location (Scott 2006; Scott & Storper 2007; Storper & Scott, 2009). The hard factors argument focus on creating strong local economic systems, once those are in place, a place will grow and consequentially soft factors such as urban amenities will grow as well.

While elaborating the literature review, several issues came into my mind. First and foremost it is clear that none of the approaches is the obvious way to go, most of the times we have to find a balance between them and make us of both. The

function of the literature review is that of giving the researcher a ground to stand on when the actual empirical research is being conducted. This distinction, and to some level, confusion, between hard and soft factors has been fruitful. As a researcher, it will be interesting to understand and discuss with firms in Malmö what actually makes them locate in the city.

The soft and hard factors used in this research have been summarized in table 2. The most important factors have been included and these are the factors that I am trying to grasp in the context of this research.

Table 2 – Hard and soft factors (own elaboration)

Hard Factors	Soft Factors
Local labor market: employment opportunities.	Clustering: Buzz, knowledge spillovers.
Transport infrastructure: public transport, transport within the city, transport connectivity between the city and the periphery, bicycle lanes.	Education: Universities and other educational institutions.
Cost of living: Housing and related services, food and beverages, leisure activities, transportation.	Tolerance and openness: Immigrants, visible minorities, different sexualities, different socio-economic status.
Public subsidies: financial investment from public entities (strong local economic system).	Cultural amenities: spare-time activities

(Bille, 2010; Florida, 2012; Moretti 2013; Murphy & Redmond, 2009; Scott, 2006; Storper & Scott, 2009)

3. Methodology

The main focus of this research is to understand what locational factors play an important, and if possible, fundamental role in retaining and attracting firms to Malmö. The units of analysis are firms operating in the new digital media sector, as a part of the entire creative sector. By looking at the literature review in the previous chapter, we can see that there are two main theories in the context of locational factors. Firstly, we have Florida (2002, 2012) supporting the idea that jobs follow people and therefore, locations should create an environment that can attract the so-called creative class. Secondly, we have Scott (2006), Scott and Storper (2007) and Storper and Scott (2009), arguing that locations become attractive when there are firms that will attract talented (creative) workers and also the presence of a strong local economic system. These two main theories have been discussed in the previous chapters, using other scholars as well, to highlight some of the main differences and overlaps.

In many aspects, Malmö is an interesting case study. The city is part of a big region, the Öresund Region, and since the opening of the bridge, many things happened in Malmö. The decline in their industrial sector was severe, many people lost their jobs and the city went through harsh times. However, the city has managed to overcome the difficulties and it is now a renowned modern city, characterized by the knowledge economy (Mellander et.al, 2010). The purpose of this research is to understand the factors that triggered this shift in the context of firms operating in the new digital media industries. The ambition is to understand what makes firms stay, or move, to Malmö.

The following chapter will firstly discuss the main research question, sub-questions and the hypotheses derived from these questions. Furthermore, the independent and dependent variables will be explained in more detail. In this part the reader can also find how the concepts are being operationalized and a clearer definition of the new digital media sector is also presented.

3.1 Mixed method approach

At the very beginning of this research, the plan was to conduct a quantitative study, collecting data through a survey. Unfortunately, the response rate on the surveys was very low, around 30%¹. Moreover, another strategy was to personally visit firms that have their offices inside of the incubators in Malmö. This turned out to be a bad decision since the general manager denied the access to the firms. This series of negative events lead to a new plan; that of conducting the research with a mixed method approach. The quantitative part (surveys) functioned as a basis of discussion for the qualitative part (interviews). In fact, this new mix-method strategy allowed the researcher to get more in-depth information about the sector from the interviews.

Bryman (2012) discussed some topics that are worth mentioning in this introduction. When using a mixed method approach, the researcher has to combine a quantitative data collection with a qualitative data collection. In order to do this properly the researcher can make use of a triangulation approach (Bryman, 2012). The triangulation approach is used as a tool to check and correct for quantitative data. As stated in the previous paragraph, the quantitative data derived from the surveys was used as the basis for discussion and questioning during the interviews. By crosschecking quantitative data, gained from surveys, with qualitative data, gained from interviews, the results can become more robust (Bryman, 2012).

¹ 93 firms were contacted via email, 28 filled in the survey.

3.2 Research question

The purpose of this research is to understand what factors that are influencing the location choice of firms that are located in Malmö. This goes for both firms that moved to Malmö and firms that were founded in the city. The main research question of the thesis is the following:

RQ: What factors attract and retain digital media firms in Malmö?

3.2.1 Hypotheses

In order to answer the main research question there are four non-directional hypotheses, divided in two groups. The first group of hypotheses is concerned with the fact regarding firms established or not established in Malmö and the influence of hard and soft factors. The second group of hypotheses is concerned with the age of the firms and the influence of hard and soft factors. The reason for having these four hypotheses is to test the quantitative data output with an *independent T-test*. The statistical test is used in circumstances when the population mean of the sample is unknown (Privitera, 2012).

First group of hypotheses

H0 = There are no differences between firms established in Malmö and Lund regarding the **soft** factors being the main attraction/retention force.

H1 = H0 \neq H1 – There are differences between firms established in Malmö and Lund regarding the **soft** factors being the main attraction/retention force.

H0 = There are no differences between firms established in Malmö and Lund regarding the **hard** factors being the main attraction/retention force.

H1 = H0 \neq H1 – There are differences between firms established in Malmö and Lund regarding the **hard** factors being the main attraction/retention force.

Second group of hypotheses

H0 = There are no differences between old and young firms regarding **soft** factors being the main attraction/retention force.

H1 = H0 \neq H1 – There are differences between old and young firms regarding **soft** factors being the main attraction/retention force.

H0 = There are no differences between old and young firms regarding **hard** factors being the main attraction/retention force.

H1 = H0 \neq H1 – There are differences between old and young firms regarding **hard** factors being the main attraction/retention force.

3.3 Research design

At the beginning of this research a cross-sectional research design was applied. With this approach, several cases (firms in the new digital media sector) could be surveyed and the results were then compared to the dependent and independent variables in order to understand the correlations (Bryman, 2012). This research is also a sort of case study, the city of Malmö and its creative industries are the case study. Bryman (2012) discusses these overlaps between cross-sectional studies and case studies. Usually, case studies imply that the researcher conducts a qualitative study of the specific case, and most probably taking an inductive approach. It is however possible to apply a quantitative and deductive approach when analyzing a case using a cross-sectional research design approach (Bryman, 2012).

Basically, a cross-sectional research design implies that several observations are made at one point in time. All the observations are then divided into different cases, for example firms in the new digital media sector that were established, or not, in Malmö (Bryman, 2012). These observations are the results of the data collected through the surveys.

As discussed earlier in the introduction of this chapter, during a late stage of the research several problems appeared. First of all, the response rate on the surveys was low and not enough to be representative for the entire population. This led to a new strategy, combining the quantitative data collection with a qualitative data collection. The quantitative data derived from the surveys was later discussed and compared to the qualitative data gathered from the interviews, thus contributing to the overall data collection with robust in-depth data (Bryman, 2012).

3.2 Validity

Validity is concerned with the concepts that are being measured and if they actually measure the notion, for example of locational choice in this case. As Bryman (2012) discusses, there are some issues with validity, in particular with internal validity, in terms of causality. Can we say that the independent variables are causing the dependent variable to occur? This will later be discussed in the results and conclusions.

In this research, we are trying to understand what factors that make firms locate in a specific location. Finding what causes the locational choice is part of this research.

3.3 Reliability

Reliability is simply concerned with whether the results gained would be the same if the research were to be conducted in a different period of time (Bryman, 2012). Basically, consistent results would generate higher reliability. Later, in the result part, the outcome and consistency of the results will be discussed.

3.4 Operationalization of concepts

3.4.1 The Swedish creative industries

One of the first, and most intriguing, problems that this research came across was the definition of the creative industries. Sweden does not have a national definition of the creative industries. I attended a conference in Malmö on March 5-6th, 2014, where the discussion was about the creative industries². Several governmental entities presented what they believed to be the creative industries and at the end of the day the definition remained in some way blurry. In this research, and for the sake of keeping concepts and definitions clear, the widely known DCMS (2001) definition will be used. The mapping of the creative industries that the UK Department for Culture, Media & Sport developed has been widely used worldwide, and Sweden is no different.

The creative industries consist of 13 sectors (DCMS, 2001):

(1) Advertising; (2) Architecture; (3) Arts and Antiques markets; (4) Crafts; (5) Design; (6) Designer fashion; (7) Film and video; (8) *Interactive leisure software*; (9) Music; (10) Performing arts; (11) Publishing; (12) **Software and computer services**; (13) Television and radio.

Number 8 and 12 are of particular interest for this research since they make up the sector of new digital media. These two categories together consist of several sub-sectors that can be found in Malmö, mainly in the incubators MINC and Media Evolution. Some of the sub-sectors in the categories 8 and 12 are: Digital TV-gaming, gaming for mobile phones, game console manufacturing, Internet services, software development and system software; among other activities.

² Kulturella och kreativa näringar i Sverige – Från politisk vision till sektor i medvind. Malmö, 5/6.03.2014.

Since the scope of this research is to focus merely on firms in the new digital media industries, there is no need to analyze and discuss the entire structure of the creative industries, but rather focus on one specific sub-sector.

The concept of the creative industries was measured by looking at both hard and soft factors. Florida (2012) argues that creative individuals are the sparkle that will ignite a place, while Scott (2006), amongst other, argue that first of all there is a need of strong local economic system. In order to be sure that firms belonged to the creative industries, and in particular to the sub-sector of the new digital media, a selection of firms based on their main activity was made, following the NACE/SNI classification (more information in table 4).

Some of the questions related to the creative industries concept were about the level of awareness that firms had regarding the sector as a whole, in Malmö. For example, questions were asked about the use of educational institutions in the context of IT-workers and to what extent firms, in the new digital media sector, found Malmö to be an attractive location to operate in.

3.4.2 Locational factors

Understanding what factors that make firms stay or move to Malmö is the central research question of this thesis. Several theories are being compared to each other. Once again, Florida (2002; 2012) and Scott (2006) are being used as a sort of main framework, to compare the soft and hard factors. Malmö has gone through a drastic change, from being a thriving industrial city, to a declining post-industrial city to now being recognized as a smart, green and technological city (Mellander et.al, 2010).

There are obviously several factors that played, and still play, a role in this evolution of the city. The survey asked, or rather made assumptions, based on both soft and hard factors. The idea was to firstly understand what really matters when firms decide to locate in Malmö, whether they are moving or staying. Secondly, it allowed us to understand what factors that play a role and at what stage in the life cycle of the firms. The dependent variable is the reason for why firms locate in Malmö, consequentially, knowing the reasons of location, we can compare that variable to the importance that was stated for each factor.

Table 2 – Hard and soft factors (own elaboration)

Hard Factors	Soft Factors
Local labor market: employment opportunities.	Clustering: Buzz, knowledge spillovers.
Transport infrastructure: public transport, transport within the city, transport connectivity between the city and the periphery, bicycle lanes.	Education: Universities and other educational institutions.
Cost of living: Housing and related services, food and beverages, leisure activities, transportation.	Tolerance and openness: Immigrants, visible minorities, different sexualities, different socio-economic status.
Public subsidies: financial investment from public entities (strong local economic system).	Cultural amenities: spare-time activities

(Bille, 2010; Florida, 2012; Moretti 2013; Murphy & Redmond, 2009; Scott, 2006; Storper & Scott, 2009)

The table represents the summary of the existing literature. Looking at the hard factors we find four different factors. Firstly, the local labor market. It represents the demand and need for labor, something that Moretti (2013) discusses. People move to places where there is a demand for workers, and firms move to places because they are in need of people. Secondly, the transport infrastructure. Going back to the research done by Murphy and Redmond (2009), we saw that the hard factors played a role in both “pulling” creative workers to Dublin, and “pushing” them away. This factor is important to understand since Malmö has gone through a quite substantial revitalization process in terms of infrastructure (the bridge, the city itself, etc.). Thirdly, the costs of living will allow us to understand if Malmö can compete with the expensive Danish neighbor, Copenhagen. This factor makes it is important to

understand if Malmö is, or not, cheaper than Copenhagen in terms of costs of living and if it could be an attraction force. Fourthly, and lastly, the public subsidy refers to the local economic systems that Scott (2006), Scott and Storper (2007) and Storper and Scott (2009) are discussing. This factor will allow us to understand to what extent the firms feel that the environment and the local economic system is supporting what they are doing.

Moving to the soft factors, we see first of all the clustering. This factor is defined as soft because of the fact that it entails the buzz that clusters create and the knowledge spillovers. This factor will allow us to understand if firms benefit, or not, from being clustered in Malmö. Similar to what Wenting et.al (2010) did in their study about fashion designers in Amsterdam. Secondly, the educational institutions. By understanding to what extent and how firms work with educational institutions, we might get an indication of where the knowledge rubs and spillovers take place and if the educational institutions are connected to the new digital media sector. Thirdly and fourthly, tolerance, openness and cultural amenities. These factors are all related to what Florida (2002; 2012) argues and what he believes to be the first step in urban development.

3.4.3 The dependent and independent variables

This research is mainly looking at what locational factors that firms in the creative sector are attracted by. The factors include both the attraction of firms, but also the retaining of existing firms. Nine variables are used in order to understand what firms are attracted by. The dependent variable is shown at the center of figure 2, *What are the main reasons for firms to locate in Malmö?* To answer this question, there are eight independent variables, consisting of four hard factors (the bridge, employment opportunities, public subsidies and costs of living/operating in Malmö) and four soft factors (cultural amenities, tolerance, clustering and universities and other educational institutions) (Florida, 2002; Murphy and Redmond, 2009; Florida, 2012; Scott, 2006; Moretti, 2013).

Figure 2 – Dependent and independent variables (own elaboration)



The idea behind this selection is to understand what factors that might be the reason for the location of firms in Malmö. Here, locational factors are divided into two categories, hard and soft. This is related to the discussion that was presented in the literature review. Mainly, Scott (2006) and his supporters approach on hard factors are challenging Florida (2002; 2012) and his supporters approach on soft factors. By applying this model on the survey, we can understand how the dependent variable (locational choice) is being affected by the various factors.

The four soft factors (cultural amenities, tolerance, clustering and universities and other educational institutions) are mostly related to what Florida (2002, 2012) is discussing. Mainly, these factors look at the degree of tolerance that the city has. In general, how open the city is to newcomers and minorities. Malmö is known for being a multicultural city, the amount of foreign-born inhabitants is one of the highest nationally (table 3), and this could be an indicator that the city is open to newcomers. The clustering is not only related to firms, but also to individuals. Since many of the firms in the sample are small in size, the clustering in this case means that a few individuals that run a firm want to be close to other individuals, running firms. Finally, cultural amenities what Florida (2002, 2012) refers to as “life-style” activities. Creative people are looking for certain places where they can spend their spare time or engage in meetings with other workers.

Table 3 – Amount of foreign-born inhabitants (2013) for the three biggest cities in Sweden (own elaboration).

	Population 2013	Foreign born 2013	% Foreign born
Stockholm	897 700	207 790	23.15%
Gothenburg	533 271	125 095	23.46%
Malmö	312 994	97 320	31.09%

National Statistics, SCB.

The remaining four hard factors (The bridge, employment opportunities, public subsidies and the costs of operating/living in Malmö) are consequentially more related to the arguments proposed by Scott (2006), Moretti (2013), Storper and Scott

(2009) and Scott and Storper (2007). Firstly, there is not much to discuss about the bridge as a hard factor as it clearly is a factor that is exclusively used due to its “hard” characteristics. The employment opportunities are discussed by Moretti (2013), and foremost by Scott (2006). According to the authors, employment opportunities are the reason for why individuals locate in certain places. Both Scott (2006) and Moretti (2013) discuss the importance of a strong local economic system and how it consequentially leads to regional growth as firms set up their businesses and people move to find a job where the firms are located. This is connected to the discussion on public subsidies and how the local economic system is, or not, supporting the sector. As for the costs of living, Murphy and Redmond (2009) refer to them as hard factors and the firms are being asked both how affordable it is to operate in Malmö, and also how affordable it is to live in Malmö.

3.5 Sampling

The units of analysis in this research are the firms that operate in the new digital media sector in Malmö. The initial idea was to sample firms that were operating in the three biggest incubators for firms in the new digital media sector in Malmö: MINC, Medea and Media Evolution. Inside of these incubators several firms are working, some of the firms are in the early start-up phase and some of the firms are already well developed and established, both nationally and sometimes even internationally. However, the response rate from the firms in these incubators was surprisingly low. Furthermore, it became difficult to personally visit the firms in their cubicle offices due to the fact that the general manager of one of the incubators did not allow visitors to enter the “work area”.

A new strategy was set out. On the website of the incubators they listed all the members of the Malmö Incubators Network³. From this list, all the firms that belonged to the new digital media sector were sampled, a total of 93 firms that made up the population of the incubator network and the entire population of this research. All the firms received an email with an introduction to the research and a link to an online survey, on the 23rd of April 2014. Unfortunately, even this strategy resulted in a low response rate. However, the new strategy did not only consider firms that operated in the incubators, but rather firms that operated in the entire Malmö-region, increasing the entire population of new digital media firms. In order to make sure that the firms actually categorized as new digital media firms, the Swedish SNI-

³ <http://www.mediaevolution.se/medlemmar>. This is simply a list of firms that have collaborated with mainly Media Evolution. Furthermore, many of these firms can be found on the websites of the other incubators (MINC and MEDEA). The reason for why I chose this specific list is because of convenience.

classification (equivalent of the European NACE⁴) was used (table 4). The “division” of the population is “*J – Information and Communication*”. In this division we can find all the IT companies, publishing (e-publishing), telecommunications (wired and wireless) and other computer programming activities. In other words, app-developers, web-site creators and firms working in the smartphone sector can be found here.

Since this research went from being a purely quantitative to become a mixed method research, the sampling method changed as well. Bryman (2012) states that when using a mixed method approach, the surveys, as a part of the quantitative data collection part, can be used to conduct interviews with the same respondents. In the surveys that were sent out to various firms in Malmö (93), there was an option for the respondents to answer whether they wanted to leave their contact information. Using this information I managed to contact four firms and to set up meetings for the interviews. A request to conduct an interview was sent to those firms that answered the survey not only by ticking the boxes, but also by leaving comments. This showed that the respondents were involved in the topic and had a genuine interest in this research.

A convenience sampling approach was used in order to find respondents. Due to budget and time limitations, this approach was the most convenient. Bryman (2012) argues that convenience sampling could function as a springboard for future research if the data is easily accessible. The population of the incubator network consists of 354 members, out of the entire members lists, there were 93 firms operating in the new digital media sector. All of these firms were selected as a part of the sample. The response rate on the online survey was 30% (28 out of 93). On top of the online survey, 12 firms got a printed version of the survey and the response rate was 100% out of the 12 surveys handed out, making the total amount of surveys 40.

In order to collect more data, an online version of the survey, that was supposed to be handed out, was created using *www.qualtrics.com*⁵. As stated above, the online survey was sent to a list of firms that were members of the Malmö

⁴ SNI is the Swedish version of NACE Rev 2. SNI and NACE are completely identical on the first four levels, division, group, class and sub-class. (http://www.scb.se/sv/_Dokumentation/Klassifikationer-och-standarder/SNI-2007-ny-svensk-naringsgrensindelning-/). To be compared with the European NACE coding (http://ec.europa.eu/competition/mergers/cases/index/nace_all.html)

⁵ https://erasmushcc.qualtrics.com/SE/?SID=SV_bDyFE8Z6ni639u5

incubator network, a total of 93 firms. The response rates were surprisingly low. On top of the personal visit to the incubators, and the online survey, the collection of data was sent out to social media networks, mainly Facebook, and the link to the online survey was posted on several groups related to the topic of research (*Frilans Malmö, 1103 members; Malmö Starups, 321 members; Minc Malmö, 1276 likes*).

As stated above, the division “*J - Information and Communication*” is the division where the population of the sample can be found. However, the surveys showed that there was a common second division, closely related to “*J*”, namely section “*M – Professional, scientific and technical activities*”. Once the sample was selected, several firms appeared to have several SNI-codes in their description. I noticed that several had the *73.11* code (Advertising agencies). These firms personally explained that the *73.11* code was their main activity, however, they also included other SNI-codes, most importantly *62.01* (Computer programming activities), due to the fact that they also provided marketing serviced related to new digital media, such as e-marketing and social media marketing. Therefore, these companies, despite not being part of the Information and Communication section, primarily, are still part of the sample of firms in the new digital media sector.

Four firms were selected for the interviews, one was part of an incubator (Media Evolution), one was a well-established web-agency (in Malmö since 1996) and two were free-lancing interaction and product-designers that had been in Malmö for several years. The reason for why these firms/entrepreneurs were chosen was simply because they showed a great interest in the survey, answering with more sentences than required and leaving comments that were not part of the surveys framework. This genuine interest in the topic that the respondents showed was the reasons for why they got selected for the interviews, which they all accepted to do without any hesitation.

Table 4 – NACE/SNI classification (own elaboration)

<u>SECTION J – Information and Communication</u>		
*Section M - Professional, scientific and technical activities		
Division	Group (SNI)	Definition
J58		Publishing activities
	58.1	Publishing of books, periodicals and other publishing activities
	58.2	Software publishing
J59		Motion picture, video and television programme production, sound recording and music publishing activities
	59.1	Motion picture, video and television programme post-production activities
J61		Telecommunications
	61.1	Wired telecommunications activities
	61.2	Wireless telecommunications activities
J62		Computer programming, consultancy and related activities
	62.01	Computer programming activities
	62.02	Computer consultancy activities

J63		Information service activities
*73 (Section M)		Advertising and market research
	73.11	Advertising agencies

3.6 Method of data collection and analysis

The method of collecting data has primarily been through a survey, and four in-depth interviews have been conducted in order to crosscheck the quantitative data and contribute to more robust results and analysis. The purpose of the survey was to divide the sample into four categories. Firstly, firms established in Malmö (code 1); secondly, firms not established in Malmö (code 2). By dividing the sample into these two different categories, we can thus try to understand what factors that retain firms in Malmö (code 1), and what factors that attract firms to Malmö (code 2). The grouping further developed into young firms (code 3) and old firms (code 4). The survey proposed a set of assumptions that each respondent had to take a standpoint on. The categorization of firms established in Malmö and firms that were attracted to Malmö is relevant in an academic context, by studying the existing literature on locational factors, we can thus try to understand if the theories proposed in the literature review actually reflect reality. On a practical urban development context; the output of this research gives the city of Malmö a hint on what firms are attracted by and what makes them stay.

3.6.1 Quantitative analysis

The output generated from the answers of the questionnaires have been statistically tested with SPSS, more specifically by applying an independent T-test, since the population mean of Malmö's new digital media sector is unknown, the test suits the questionnaires' output.

3.6.2 Survey framework

The questions and the outcome of the respondents were based on a 10-point Likert scale (Bryman, 2012). This scale is structured in such way that the questions

asked are not really questions, but rather assumptions. As an example, the survey did not ask how important the Öresund Bridge is, but instead the answer was derived from an assumption that the bridge is important; the respondents had to answer to what extent that they agree or disagree with the assumption (Bryman, 2012). The majority of the assumptions had a positive direction, meaning that they assume factors to be good or beneficial. In order to make sure that the respondents were paying attention to the assumptions and consequentially responding in an honest way, some of the assumptions had a negative direction. The results are therefore “reverted”, making 1 (strongly disagree) the most positive answer, and 10 (strongly agree), the most negative (Bryman, 2012).

The questions were based on the factors presented in figure 2 (3.4.3). The questionnaire started off with some questions to define the demographic of the firms in the sample, such as year of foundation, number of employees, and so on. Each factor had two to three assumptions that the respondents had to take a standpoint on. Moreover, two open questions regarding the proximity to Copenhagen were asked, one asking for positive effects and one for negative effects of the proximity. These questions are presented as qualitative data output due to their open question characteristic. (*Final survey in Appendix I*)

3.6.3 Pilot survey

A pilot survey was conducted on April 16th, 2014. The survey was piloted on a firm that operates in the computer-programming sector. As Bryman (2012) states, piloting a survey can turn out to be of crucial importance because once the survey has been sent or handed out, the researcher cannot be present at all times to clear up any confusion. The piloting of the survey confirmed that the questions in the survey were understandable and the respondent did not face any major confusion in completing the survey.

3.6.4 Qualitative analysis – Interviews

All the interviews have been recorded using an audio recording device. The interviews were performed in Swedish and each of them has a detailed transcript of what was discussed during the interview. As Bryman (2012) states, the data analysis part is basically making sense of data, and to do so the researcher has to apply a so-called data reduction method. This consists in finding a way to reduce the amount of

data to a point where it starts to make sense. The interviews sometimes took a slightly “off-topic” direction, and the discussion did not always stick to the core point, therefore, data reduction is needed in order to analyze the output. Basically, the main points of the interviews are going to be presented. Bryman (2012) discusses the use of a thematic analysis and the consequent stages of coding interviews. This research will focus on the first stage, the thematic analysis, in order to highlight some of the main themes and points discussed during the interviews.

4. Results

Firstly, the quantitative data is going to be presented. The descriptive statistics are followed by an independent t-test that will test if there are any statistically significant differences between firms founded in Malmö and firms founded elsewhere, and between young and old firms. For the variables that are not normally distributed a Mann-Whitney U test is going to be performed⁶. A summary and discussion about the results will follow in the forthcoming chapter – 5, Conclusions.

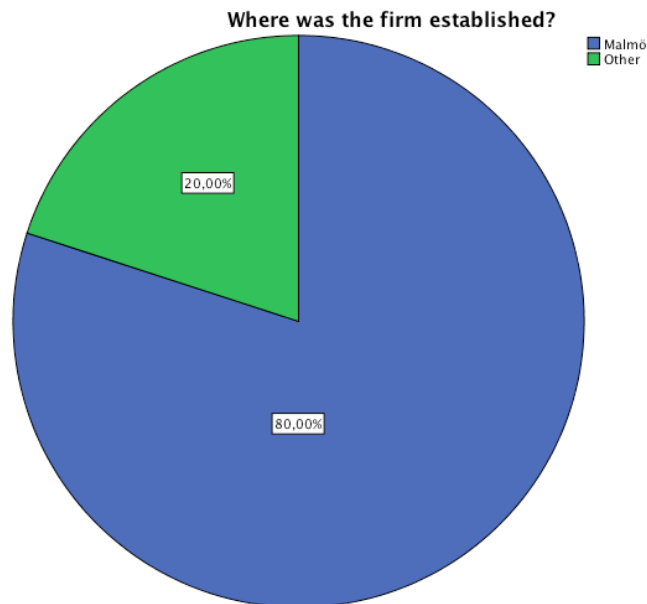
⁶ Mann-Whitney test, online source. Check references.

4.1 Quantitative data analysis

The central research topic of this research is to understand what factors that attract and retain firms, to stay in Malmö. The firms that were sampled to undertake the survey were mostly founded in Malmö, 80%, and 20% founded elsewhere in Sweden ($n=40$). The following figures illustrate the demographics of the sample.

Sample distribution per origin ($n=40$) – own elaboration

(Figure 3)



Sample distribution per year of establishment (n=40) (entire sample)

Statistics

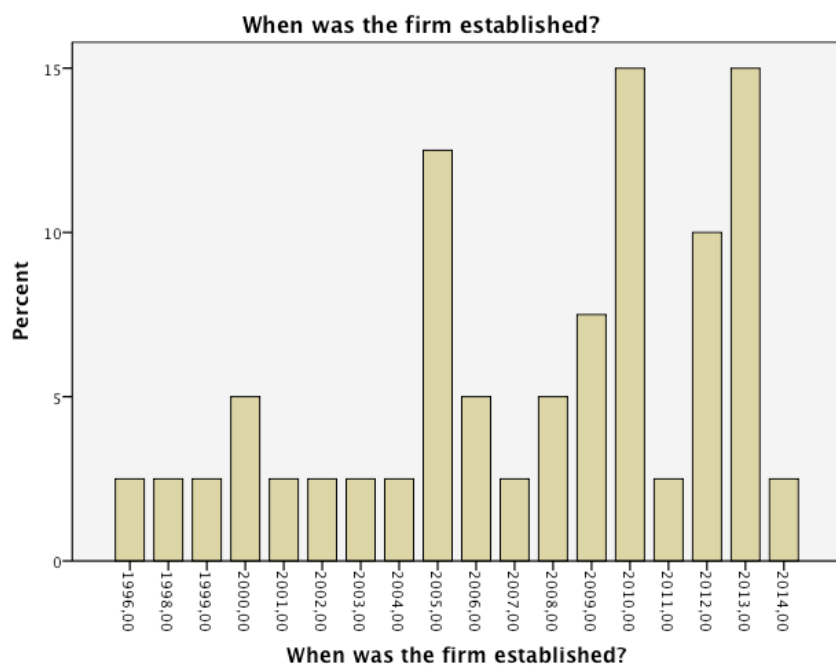
When was the firm ...

N	Valid	40
	Missing	0
Mean		2007,5250
Median		2009,0000
Mode		2010,00 ^a
Std. Deviation		4,83039

a. Multiple modes exist.
The smallest value is shown

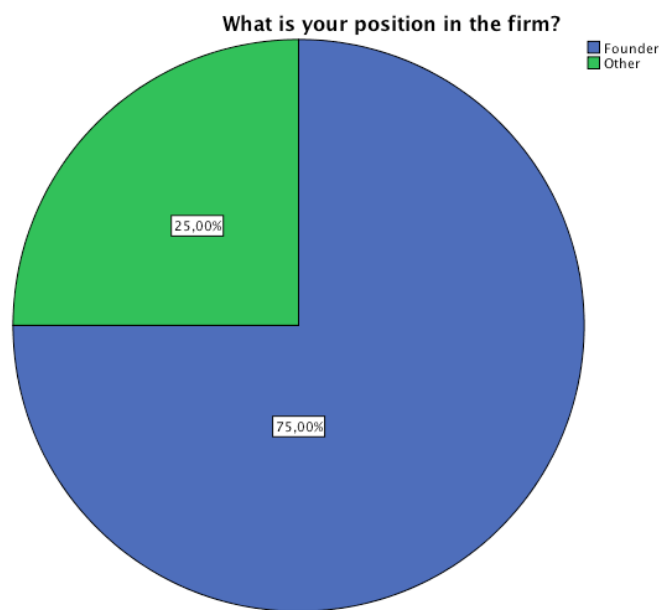
When was the firm established?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1996,00	1	2,5	2,5	2,5
	1998,00	1	2,5	2,5	5,0
	1999,00	1	2,5	2,5	7,5
	2000,00	2	5,0	5,0	12,5
	2001,00	1	2,5	2,5	15,0
	2002,00	1	2,5	2,5	17,5
	2003,00	1	2,5	2,5	20,0
	2004,00	1	2,5	2,5	22,5
	2005,00	5	12,5	12,5	35,0
	2006,00	2	5,0	5,0	40,0
	2007,00	1	2,5	2,5	42,5
	2008,00	2	5,0	5,0	47,5
	2009,00	3	7,5	7,5	55,0
	2010,00	6	15,0	15,0	70,0
2011,00	1	2,5	2,5	72,5	
2012,00	4	10,0	10,0	82,5	
2013,00	6	15,0	15,0	97,5	
2014,00	1	2,5	2,5	100,0	
Total		40	100,0	100,0	



Most of the firms were fairly young, as the bar chart shows, most of them were founded after 2005.

Sample distribution per position within the firm (n=40) – own elaboration (entire sample)



Due to their young “age” it became easier to find the actual founder (75%) of the firm and thus make him or her fill in the survey. By getting answers from the founder, we can get to understand the reasons for why the firm stays in Malmö, or why it moved there. Respondents that categorized as “other” (25%) included for most of the surveys: CEO, COO, partners and co-founders.

Sample distribution per size of firms (employees) (n=40) (entire sample)

Statistics

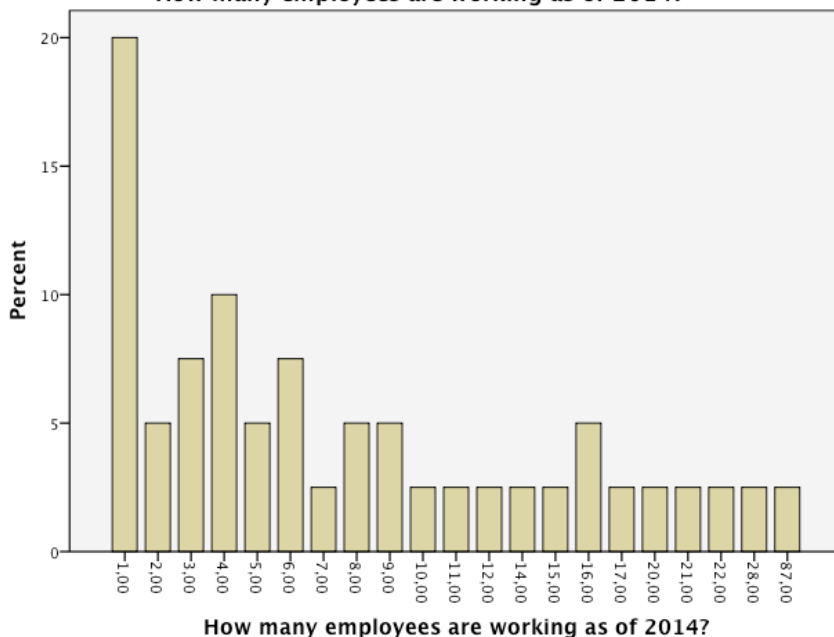
How many employees are working as of 2014?

N	Valid	40
	Missing	0
Mean		9,8750
Median		6,0000
Mode		1,00
Std. Deviation		14,29396

How many employees are working as of 2014?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1,00	8	20,0	20,0	20,0
2,00	2	5,0	5,0	25,0
3,00	3	7,5	7,5	32,5
4,00	4	10,0	10,0	42,5
5,00	2	5,0	5,0	47,5
6,00	3	7,5	7,5	55,0
7,00	1	2,5	2,5	57,5
8,00	2	5,0	5,0	62,5
9,00	2	5,0	5,0	67,5
10,00	1	2,5	2,5	70,0
11,00	1	2,5	2,5	72,5
12,00	1	2,5	2,5	75,0
14,00	1	2,5	2,5	77,5
15,00	1	2,5	2,5	80,0
16,00	2	5,0	5,0	85,0
17,00	1	2,5	2,5	87,5
20,00	1	2,5	2,5	90,0
21,00	1	2,5	2,5	92,5
22,00	1	2,5	2,5	95,0
28,00	1	2,5	2,5	97,5
87,00	1	2,5	2,5	100,0
Total	40	100,0	100,0	

How many employees are working as of 2014?



The majority of the sample consists of firms that are fairly young and on top of that they are operating in a sector that has been on the uprising for a couple of years. A consequence of this newness is that many of the firms are small in size, as the bar charts shows, the majority of the firms have a total amount of employees, including the founder, of below ten.

Table 4 – SNI/NACE division (own elaboration) (entire sample)

SNI/NACE	Frequency	Definition
46460	1	Wholesale of pharmaceutical goods
58110	1	Publishing activities
59120	1	Motion pictures, video, and TV
61110	1	Wired telecommunications activities
61200	1	Wireless telecommunications activities
62010	17	Computer programming activities
62020	1	Computer consultancy activities
63	3	Information service activities
70220	2	Business and management consultancy
71122	1	Engineering and technical activities
73111	5	Advertising agencies
73120	1	Media representation
90010	2	Performing arts
Missing	3	
Total	40	

4.1.1 Results from the Likert-scale assumptions

Statistics

		In the context of business meetings, the Öresund Bridge is important for our firm	The proximity to Copenhagen International Airport Kastrup is an important resource for our firm	The Öresund Bridge allows us to establish connections with other (foreign) firms and thus develop our business	It is important for our firm to be located in a city that is tolerant towards other nationalities, ethnicities and minorities	We do prioritize to do business and develop our firm in a location that is tolerant and open towards everyone	Malmö's labor market for workers in the new digital media sector is thick	Malmö's labor market for new digital media workers is facing tough competition from Copenhagen	We can make use of Malmö University as a resource for finding future employees	As a firm, we work closely with interns that are enrolled to a local educational institution
N	Valid	40	40	39	40	40	39	37	40	40
	Missing	0	0	1	0	0	1	3	0	0
Mean		6,2250	6,0250	6,3846	8,1250	7,9250	6,2821	4,2432	6,5750	5,6000
Median		7,0000	7,0000	6,0000	9,0000	8,0000	7,0000	4,0000	7,0000	5,0000
Mode		7,00 ^a	7,00	6,00 ^a	10,00	10,00	7,00	5,00	8,00	3,00
Std. Deviation		2,64563	2,92195	2,45609	2,30036	2,33576	2,37253	1,70629	2,08643	2,84470

a. Multiple modes exist. The smallest value is shown

Statistics

		It is important for our firm and our employees to have access to a variety of bars, pubs, restaurants and other similar places	As a firm we do make use (for business purposes) of public and private places in the city of Malmö	It is important for our firm to be closely located to other firms that are doing similar things	We do not care about the location of our direct competitors, we do not pay attention if they are located in Malmö	We do participate in many activities that involve firms that are part of the same cluster	The costs of operating in Malmö are affordable	We know that we can attract employees to work with us in Malmö because the general costs of living are affordable	Our firm is actively involved in the strategies that the city of Malmö develops for the creative industries	The survival of our firm does not depend at all on any subsidies
N	Valid	40	40	40	39	40	40	40	40	40
	Missing	0	0	0	1	0	0	0	0	0
Mean		6,0500	5,4750	6,9250	5,2821	6,4250	7,6750	6,5750	5,8250	8,0250
Median		7,0000	6,0000	7,0000	5,0000	7,0000	8,0000	6,5000	6,0000	9,0000
Mode		8,00	7,00	7,00 ^a	3,00	7,00	8,00	5,00	7,00	10,00
Std. Deviation		2,68853	2,78262	2,05548	2,27051	2,46917	1,54235	1,78149	2,33026	2,57689

a. Multiple modes exist. The smallest value is shown

The data output takes into account the entire sample and it does not make any distinction between firms founded in Malmö/not founded in Malmö and young/old

firms. This data output gives us an indication of how firms in Malmö's new digital media sector perceive both hard and soft factors.

Firstly, the soft factors (tolerance, educational institutions, cultural amenities and clustering). Summing up all the scores, we get a value of $M=6.47$. By analyzing the factors one by one we can clearly see that tolerance scored the highest results; $M=8.1250$ and $M=7.9250$, respectively for the assumptions on tolerance. As mentioned earlier, Malmö has the highest percentage of foreign-born inhabitants when compared to Stockholm and Gothenburg. Firms moving to Malmö, and those established here, clearly showed that for them, tolerance is important. This might not only be related to immigrants and foreign-born inhabitants, but to other groups and minorities as well. However, a city that has the highest percentage of foreign-born inhabitants and that scores the highest results on assumptions on tolerance indicates that foreigners and tolerance might be correlated.

Moving on to the results on educational institutions we can see that the assumption on using Malmö's University as a potential resource for finding new employees scored higher, $M=6.5750$, than the assumption on working with interns, $M=5.6000$. It is difficult to draw any general conclusion on why firms would rather try to find new employees than to work with interns that can become employees later on. As many of the firms in the sample are young firms, choosing to work with interns might not be very beneficial. As the firm is young and still developing, adding some "unskilled" people to the team might in fact be harmful.

The assumptions on cultural amenities also scored relatively low, respectively $M=6.0500$ and $M=5.4750$. It is commonly known that Copenhagen offers an amazing nightlife, great restaurants and in general a good variety of leisure activities. On top of that, Copenhagen is just 30 minutes away by train. The proximity to such a cultural and creative city might be one of the reasons for why the assumptions on Malmö's cultural amenities scored fairly low.

Lastly, regarding the soft factors, we find the clustering assumptions. These all scored quite high; respectively $M=6.9250$, $M=5.2821$ (reverted assumption) and $M=6.4250$. The cluster of new digital media is to be found in the old port area of Malmö. Amazing buildings have been preserved and turned into creative spaces. The area gives visitors a feeling of development in the sense that before these offices

moved in, there was nothing there, and now every single building has some sort of business going on there. On top of that, the university of Malmö is also to be found in the same area. All these factors are the basis for the atmosphere that is created there and the results from the survey show that firms do appreciate the fact that the clustering.

Moving on to the hard factors we see that by summing up all the scores we get a value of $M=6.36$, slightly less than the soft factors. Firstly, the importance of the bridge did score above 6 on all three assumptions; $M=6.2250$, $M=6.0250$, $M=6.3846$ respectively. However, the scores did not show any particularly high results, none above 7 actually. There might be two reasons behind this. Firstly, most of the firms are young and they are still trying to make a name on a national level. Therefore, the bridge does not become important for them since they have to work on the Swedish market. The second reason might be that since the firms are young, they did not really experience the time when the bridge was not there, in other words, they do not know how complicated it was to get to Copenhagen before the bridge was built. Therefore, they might perceive the bridge as a sort of natural extension of the city and not as something new that changes the scenario.

The assumptions on Malmö's labor market showed some interesting results. Firstly, the assumption on the thickness of the labor market for new digital media workers scored $M=6.2821$. This goes to show that firms in Malmö are confident in finding workers within the city; there is a supply of new digital media workers. Secondly, the assumption on the labor market and the risk that Copenhagen might be a threat, attracting workers to go there, scored $M=4.2432$. This is one of the most interesting results; it shows that firms do not perceive Copenhagen as a threat. New digital media workers would rather stay in Malmö than moving to Copenhagen.

The assumptions on the costs of operating and living in Malmö also showed interesting results, supporting the fact that Malmö is an attractive place. The assumption on the costs of operating in Malmö scored $M=7.6750$ and the assumption

on the costs of living scored $M=6.5750$. These scores indicate that firms perceive Malmö as a rather affordable place to set up a business in, and to live in.

Lastly, regarding the hard factors, we see that firms do not, to a large extent, participate in activities where they have a chance to develop and comment on the strategies that the city of Malmö has for the creative industries; $M=5.8250$. Furthermore, we find one of the highest score on the assumption about the survival of the firm and to what extent they depend on subsidies. The scores show that the majority of firm do not depend on subsidies; $M=8.0250$. This is in a way a positive result since it shows that the survival of the firm is not strictly related to subsidies, but firms are rather trying to find a sustainable way of surviving and thriving.

4.1.2 Cronbach's Alpha

The purpose of using this tool is to measure for the reliability of the different factors that were part of the survey. Usually, the higher the score, the more reliable the output. Nunnaly (1978 in Santos, 1999) argues that 0.7 is an acceptable score for reliability. The output for this research scores well above 0.7 and it can therefore be considered to be reliable.

Case Processing Summary

		N	%
Cases	Valid	37	92,5
	Excluded ^a	3	7,5
	Total	40	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,807	,798	18

4.1.3 Normality test (Shapiro – Wilk) – Malmö/not Malmö

The Shapiro – Wilk (1965) test will measure the distribution of the sample. H0 would assume data to be normally distributed; H1 will consequentially assume that data is not normally distributed. Each independent variable will now be presented. Find the visuals of the test in the appendix. Sig< or equal to 0.05, reject H0, no normality. Sig > 0.05, accept H0, normality is assumed.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
In the context of business meetings, the Öresund Bridge is important for our firm	Malmö	,140	32	,110	,928	32	,035
	Other	,291	8	,045	,870	8	,150

a. Lilliefors Significance Correction

Given $p=0.035$, we assume the sample of firms from Malmö to not be normally distributed; while firms defined as other are assumed to be normally distributed, $p=0.150$.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
The proximity to Copenhagen International Airport Kastrup is an important resource for our firm	Malmö	,192	32	,004	,900	32	,006
	Other	,268	8	,096	,862	8	,126

a. Lilliefors Significance Correction

Given $p=0.006$, we assume the sample of firms from Malmö to not be normally distributed; while firms defined as other are assumed to be normally distributed, $p=0.126$

Tests of Normality

	Where was the firm established?	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
The Oresund Bridge allows us to establish connections with other (foreign) firms and thus develop our business	Malmö	,128	31	,200 [*]	,940	31	,084
	Other	,200	8	,200 [*]	,922	8	,450

^{*}. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.084$, and $p=0.450$, we assume both groups in the sample to be normally distributed.

Tests of Normality

	Where was the firm established?	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
It is important for our firm to be located in a city that is tolerant towards other nationalities, ethnicities and minorities	Malmö	,231	32	,000	,774	32	,000
	Other	,271	8	,086	,845	8	,085

a. Lilliefors Significance Correction

Given $p=0.000$, we assume the sample of firms from Malmö to not be normally distributed; while firms defined as other are assumed to be normally distributed, $p=0.085$.

Tests of Normality

	Where was the firm established?	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
We do prioritize to do business and develop our firm in a location that is tolerant and open towards everyone	Malmö	,182	32	,009	,842	32	,000
	Other	,312	8	,021	,773	8	,015

a. Lilliefors Significance Correction

Given $p=0.000$ and $p=0.015$, we assume none of the groups in the sample to be normally distributed.

Tests of Normality

	Where was the firm established?	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Malmö's labor market for workers in the new digital media sector is thick	Malmö	,142	31	,112	,943	31	,100
	Other	,205	8	,200 [*]	,902	8	,301

^{*}. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.100$ and $p=0.301$, we assume both groups in the sample to be normally distributed.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Malmö's labor market for new digital media workers is facing tough competition from Copenhagen	Malmö	,215	30	,001	,914	30	,019
	Other	,214	7	,200*	,882	7	,236

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.019$, we assume the sample of firms from Malmö to not be normally distributed; while firms defined as other are assumed to be normally distributed, $p=0.236$.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
We can make use of Malmö University as a resource for finding future employees	Malmö	,149	32	,070	,964	32	,358
	Other	,248	8	,159	,922	8	,450

a. Lilliefors Significance Correction

Given $p=0.358$ and $p=0.450$, we assume both groups in the sample to be normally distributed.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
As a firm, we work closely with interns that are enrolled to a local educational institution	Malmö	,188	32	,005	,889	32	,003
	Other	,193	8	,200*	,928	8	,494

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.003$, we assume the sample of firms from Malmö to not be normally distributed; while firms defined as other are assumed to be normally distributed, $p=0.494$.

Tests of Normality

	Where was the firm established?	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
It is important for our firm and our employees to have access to a variety of bars, pubs, restaurants and other similar places	Malmö	,174	32	,015	,923	32	,025
	Other	,188	8	,200*	,883	8	,203

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.025$, we assume the sample of firms from Malmö to not be normally distributed; while firms defined as other are assumed to be normally distributed, $p=0.203$.

Tests of Normality

	Where was the firm established?	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
As a firm we do make use (for business purposes) of public and private places in the city of Malmö	Malmö	,159	32	,038	,921	32	,022
	Other	,172	8	,200*	,972	8	,916

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.022$, we assume the sample of firms from Malmö to not be normally distributed; while firms defined as other are assumed to be normally distributed, $p=0.916$.

Tests of Normality

	Where was the firm established?	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
It is important for our firm to be closely located to other firms that are doing similar things	Malmö	,182	32	,009	,927	32	,033
	Other	,313	8	,021	,803	8	,031

a. Lilliefors Significance Correction

Given $p=0.033$ and $p=0.031$, we cannot assume a normal distribution for neither one of the two groups.

Tests of Normality

	Where was the firm established?	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
We do not care about the location of our direct competitors, we do not pay attention if they are located in Malmö	Malmö	,191	31	,005	,908	31	,011
	Other	,289	8	,048	,875	8	,167

a. Lilliefors Significance Correction

Given $p=0.011$, we assume the sample of firms from Malmö to not be normally distributed; while firms defined as other are assumed to be normally distributed, $p=0.167$.

Tests of Normality

	Where was the firm established?	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
We do participate in many activities that involve firms that are part of the same cluster	Malmö	,169	32	,020	,930	32	,038
	Other	,293	8	,042	,785	8	,020

a. Lilliefors Significance Correction

Given $p=0.038$ and $p=0.020$, we cannot assume a normal distribution for neither one of the two groups.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
The costs of operating in Malmö are affordable	Malmö	,266	32	,000	,862	32	,001
	Other	,384	8	,001	,720	8	,004

a. Lilliefors Significance Correction

Given $p=0.001$ and $p=0.004$, we cannot assume a normal distribution for neither one of the two groups.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
We know that we can attract employees to work with us in Malmö because the general costs of living are affordable	Malmö	,167	32	,024	,942	32	,085
	Other	,220	8	,200 [*]	,912	8	,369

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.085$ and $p=0.369$, we assume both groups in the sample to be normally distributed.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Our firm is actively involved in the strategies that the city of Malmö develops for the creative industries	Malmö	,181	32	,009	,939	32	,071
	Other	,196	8	,200 [*]	,858	8	,114

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.071$ and $p=0.114$, we assume both groups in the sample to be normally distributed.

Tests of Normality

	Where was the firm established?	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
The survival of our firm does not depend at all on any subsidies	Malmö	,283	32	,000	,749	32	,000
	Other	,211	8	,200*	,834	8	,065

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.000$, we assume the sample of firms from Malmö to not be normally distributed; while the firms defined as other are assumed to be normally distributed, $p=0.065$.

A general summary of the test shows that mostly, the sample group of firms founded in Malmö did not show a normal distribution, while the sample of firms founded elsewhere did show in most of the cases a normal distribution. The sample size of the two groups differs quite a lot, the Malmö group having $df=32$ and the non-Malmö group having $df=8$. Most probably, a more even distribution in the population would have resulted in different scores.

4.1.4 Normality test (Shapiro – Wilk) – Young/Old

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
In the context of business meetings, the Öresund Bridge is important for our firm	Old	,230	9	,185	,836	9	,052
	Young	,154	31	,058	,926	31	,033

a. Lilliefors Significance Correction

Given $p=0.052$ we assume old firms to be normally distributed; while young firms are assumed to not be normally distributed, $p=0.033$.

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
The proximity to Copenhagen International Airport Kastrup is an important resource for our firm	Old	,218	9	,200*	,921	9	,400
	Young	,214	31	,001	,889	31	,004

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.400$, we assume old firms to be normally distributed; while young firms are not assumed to be normally distributed, $p=0.004$.

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
The Öresund Bridge allows us to establish connections with other (foreign) firms and thus develop our business	Old	,167	9	,200*	,930	9	,480
	Young	,126	30	,200*	,928	30	,045

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.480$, we assume old firms to be normally distributed; while young firms are not assumed to be normally distributed, $p=0.045$

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
It is important for our firm to be located in a city that is tolerant towards other nationalities, ethnicities and minorities	Old	,274	9	,050	,854	9	,083
	Young	,215	31	,001	,792	31	,000

a. Lilliefors Significance Correction

Given $p=0.083$ we assume old forms to be normally distributed; while young firms are not assumed to be normally distributed, $p=0.000$.

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
We do prioritize to do business and develop our firm in a location that is tolerant and open towards everyone	Old	,257	9	,088	,787	9	,014
	Young	,199	31	,003	,828	31	,000

a. Lilliefors Significance Correction

Given $p=0.014$ and $p=0.000$, we assume that both groups are not normally distributed.

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Malmö's labor market for workers in the new digital media sector is thick	Old	,223	9	,200	,951	9	,701
	Young	,132	30	,192	,937	30	,076

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.701$ and $p=0.076$, we assume both groups to be normally distributed.

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Malmö's labor market for new digital media workers is facing tough competition from Copenhagen	Old	,222	9	,200	,907	9	,296
	Young	,169	28	,040	,956	28	,272

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.296$ and $p=0.272$, we assume both groups to be normally distributed.

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
We can make use of Malmö University as a resource for finding future employees	Old	,224	9	,200	,895	9	,223
	Young	,184	31	,009	,939	31	,079

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.223$ and $p=0.079$, we assume both groups to be normally distributed.

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
As a firm, we work closely with interns that are enrolled to a local educational institution	Old	,217	9	,200	,926	9	,445
	Young	,152	31	,066	,909	31	,012

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.445$ we assume old firms to be normally distributed; while young firms are assumed to not be normally distributed, $p=0.012$.

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
It is important for our firm and our employees to have access to a variety of bars, pubs, restaurants and other similar places	Old	,314	9	,011	,713	9	,002
	Young	,126	31	,200 [*]	,929	31	,041

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.002$ and $p=0.041$ we assume that both groups are not normally distributed.

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
As a firm we do make use (for business purposes) of public and private places in the city of Malmö	Old	,223	9	,200 [*]	,951	9	,701
	Young	,140	31	,127	,934	31	,055

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.7031$ and $p=0.55$ we assume both groups to be normally distributed.

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
It is important for our firm to be closely located to other firms that are doing similar things	Old	,212	9	,200 [*]	,826	9	,041
	Young	,172	31	,021	,923	31	,028

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.41$ and $p=0.28$ we assume both groups to not be normally distributed.

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
We do not care about the location of our direct competitors, we do not pay attention if they are located in Malmö	Old	,258	9	,086	,848	9	,070
	Young	,176	30	,018	,932	30	,055

a. Lilliefors Significance Correction

Given $p=0.070$ and $p=0.055$, we assume both groups to be normally distributed.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
We do participate in many activities that involve firms that are part of the same cluster	Old	,205	9	,200	,933	9	,510
	Young	,162	31	,037	,933	31	,054

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.510$ and $p=0.054$, we assume both groups to be normally distributed.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
The costs of operating in Malmö are affordable	Old	,262	9	,074	,906	9	,286
	Young	,297	31	,000	,848	31	,000

a. Lilliefors Significance Correction

Given $p=0.286$ we assume old firms to be normally distributed; while young firms are assumed to not be normally distributed, $p=0.000$.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
We know that we can attract employees to work with us in Malmö because the general costs of living are affordable	Old	,257	9	,088	,903	9	,273
	Young	,167	31	,028	,937	31	,068

a. Lilliefors Significance Correction

Given $p=0.273$ and $p=0.068$, we assume both groups to be normally distributed.

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Our firm is actively involved in the strategies that the city of Malmö develops for the creative industries	Old	,208	9	,200	,943	9	,618
	Young	,164	31	,034	,941	31	,089

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Given $p=0.618$ and $p=0.089$, we assume both groups to be normally distributed.

Tests of Normality

	Old/Young firms	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
The survival of our firm does not depend at all on any subsidies	Old	,373	9	,001	,703	9	,002
	Young	,267	31	,000	,781	31	,000

a. Lilliefors Significance Correction

Given $p=0.002$ and $p=0.000$, we assume both groups to not be normally distributed.

Summing up the results, we see that in the group of old and young firms there are far more factors that are normally distributed, compared to the earlier sample group of firms founded and not founded in Malmö. In order to tests for the differences between the samples we will apply an independent t-test for the normally distributed variables, and a Mann-Whitney U test for the non-normally distributed.

4.1.3 Malmö/not Malmö – Young/Old

The results from each of the 17 Likert-scale assumptions will be presented with frequency tables and the values of each respective mean, median and Standard Deviation divided in two groups; firms founded/not founded, young/old firms.

Hard and soft factors for firms founded and not founded in Malmö

Report

Where was the firm established?		In the context of business meetings, the Öresund Bridge is important for our firm	The proximity to Copenhagen International Airport Kastrup is an important resource for our firm	The Öresund Bridge allows us to establish connections with other (foreign) firms and thus develop our business	Malmö's labor market for workers in the new digital media sector is thick	Malmö's labor market for new digital media workers is facing tough competition from Copenhagen	The costs of operating in Malmö are affordable	We know that we can attract employees to work with us in Malmö because the general costs of living are affordable	Our firm is actively involved in the strategies that the city of Malmö develops for the creative industries
Malmö	Mean	6,2188	5,9688	6,3226	6,1935	4,0667	7,8125	6,6875	5,8438
	N	32	32	31	31	30	32	32	32
	Std. Deviation	2,84814	3,12621	2,58698	2,50891	1,59597	1,59510	1,82169	2,52867
	Median	7,0000	7,0000	6,0000	7,0000	4,0000	8,0000	7,0000	6,0000
Other	Mean	6,2500	6,2500	6,6250	6,6250	5,0000	7,1250	6,1250	5,7500
	N	8	8	8	8	7	8	8	8
	Std. Deviation	1,75255	2,05287	1,99553	1,84681	2,08167	1,24642	1,64208	1,38873
	Median	7,0000	7,0000	7,0000	7,0000	5,0000	8,0000	6,0000	6,0000
Total	Mean	6,2250	6,0250	6,3846	6,2821	4,2432	7,6750	6,5750	5,8250
	N	40	40	39	39	37	40	40	40
	Std. Deviation	2,64563	2,92195	2,45609	2,37253	1,70629	1,54235	1,78149	2,33026
	Median	7,0000	7,0000	6,0000	7,0000	4,0000	8,0000	6,5000	6,0000

Hard and soft factors for young and old firms

Old firms defined by those that were founded before 2004, young firms are consequentially those founded after 2004.

Report

Old/Young firms		In the context of business meetings, the Öresund Bridge is important for our firm	The proximity to Copenhagen International Airport Kastrup is an important resource for our firm	The Öresund Bridge allows us to establish connections with other (foreign) firms and thus develop our business	Malmö's labor market for workers in the new digital media sector is thick	Malmö's labor market for new digital media workers is facing tough competition from Copenhagen	The costs of operating in Malmö are affordable	We know that we can attract employees to work with us in Malmö because the general costs of living are affordable	Our firm is actively involved in the strategies that the city of Malmö develops for the creative industries
Old	Mean	6,2222	5,4444	6,0000	6,7778	3,8889	7,3333	6,7778	6,3333
	N	9	9	9	9	9	9	9	9
	Std. Deviation	1,71594	2,06828	1,58114	1,56347	1,45297	1,22474	,97183	1,41421
	Median	7,0000	6,0000	6,0000	7,0000	4,0000	8,0000	7,0000	6,0000
Young	Mean	6,2258	6,1935	6,5000	6,1333	4,3571	7,7742	6,5161	5,6774
	N	31	31	30	30	28	31	31	31
	Std. Deviation	2,88340	3,13496	2,67492	2,56949	1,78915	1,62706	1,96420	2,53492
	Median	7,0000	7,0000	7,0000	6,5000	4,5000	8,0000	6,0000	6,0000
Total	Mean	6,2250	6,0250	6,3846	6,2821	4,2432	7,6750	6,5750	5,8250
	N	40	40	39	39	37	40	40	40
	Std. Deviation	2,64563	2,92195	2,45609	2,37253	1,70629	1,54235	1,78149	2,33026
	Median	7,0000	7,0000	6,0000	7,0000	4,0000	8,0000	6,5000	6,0000

ethnicities and minorities | and open towards | for finding future | local educational | and other similar places | private places in the | that are doing similar | if they are located in | that are part of the same

Report

Old/Young firms		It is important for our firm to be located in a city that is tolerant towards other nationalities, ethnicities and minorities	We do prioritize to do business and develop our firm in a location that is tolerant and open towards everyone	We can make use of Malmö University as a resource for finding future employees	As a firm, we work closely with interns that are enrolled to a local educational institution	It is important for our firm and our employees to have access to a variety of bars, pubs, restaurants and other similar places	As a firm we do make use (for business purposes) of public and private places in the city of Malmö	It is important for our firm to be closely located to other firms that are doing similar things	We do not care about the location of our direct competitors, we do not pay attention if they are located in Malmö	We do participate in many activities that involve firms that are part of the same cluster
Old	Mean	8,6667	8,1111	6,4444	6,0000	7,1111	7,2222	6,5556	5,4444	6,3333
	N	9	9	9	9	9	9	9	9	9
	Std. Deviation	1,22474	2,14735	1,87824	2,39792	1,26930	1,56347	1,33333	2,74368	1,73205
	Median	9,0000	9,0000	6,0000	5,0000	8,0000	7,0000	7,0000	5,0000	7,0000
Young	Mean	7,9677	7,8710	6,6129	5,4839	5,7419	4,9677	7,0323	5,2333	6,4516
	N	31	31	31	31	31	31	31	30	31
	Std. Deviation	2,52301	2,41857	2,17067	2,98743	2,92082	2,86919	2,22836	2,16051	2,66882
	Median	9,0000	8,0000	7,0000	5,0000	6,0000	5,0000	7,0000	5,0000	7,0000
Total	Mean	8,1250	7,9250	6,5750	5,6000	6,0500	5,4750	6,9250	5,2821	6,4250
	N	40	40	40	40	40	40	40	39	40
	Std. Deviation	2,30036	2,33576	2,08643	2,84470	2,68853	2,78262	2,05548	2,27051	2,46917
	Median	9,0000	8,0000	7,0000	5,0000	7,0000	6,0000	7,0000	5,0000	7,0000

All in all, the different groups did not show any surprising differences. There are a few factors that showed differences of +/- 1. For example the assumption on firms working with interns showed different scores for firms founded in Malmö ($M=5.1875$) and firms not founded in Malmö (7.2500). One of the reasons for why firms founded in Malmö do not work with interns as much as firms founded elsewhere might be the fact that Malmö University has only been in the city since 1999. There might be a need to first of all establish a tradition and culture of working with interns, in other words, a long-term process.

Another interesting result is to be found in the group young/old firms and the factor "It is important for our firm and employees to have access to bars, etc.". Older firms scored higher ($M=7.111$) than younger firms ($M=5.7419$). Regarding this factor, there might be a long tradition among older firms of using bars, pubs and restaurants for business and leisure. Younger firms might have other places where they meet with others that are in the same situation, young and starting up a business. And above all, new to the city and therefore not completely familiar with leisure activities.

Other than these scores, there were not many surprising results. Most of the data output shows that the groups are similar. To further investigate in the differences, an independent t-test will be conducted to look for statistically significant differences.

4.2 Independent T-test

As the population mean of firms in Malmö's new digital media sector is unknown, an independent t-test was the only alternative to test whether firms from Malmö and Lund, and young or old firms, had any statistically significant differences (Privitera, 2012). Firstly, the normally distributed variables, we test for the soft factors between firms founded and not founded in Malmö, then for the hard factors. Secondly, we test for the soft factors for young and old firms, then for the hard factors. ($p < 0.05$, $n = 40$)

4.2.1 Soft factors – firms founded and not founded in Malmö

$p < 0.05$, $n = 40$

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
We can make use of Malmö University as a resource for finding future employees	Equal variances assumed	,077	,783	-1,220	38	,230	-1,00000	,81962	-2,65923	,65923
	Equal variances not assumed			-1,256	11,179	,235	-1,00000	,79647	-2,74960	,74960

“We can make use of Malmö University as a resource for finding future employees” – $p = 0.230$ consequentially assumes that there is an equal variance, and since the $p > 0.005$, H_0 is retained. There is no statistically significant difference between firms founded in Malmö and elsewhere in regards to using the university as a resource for finding new employees.

4.2.2 Hard factors – firms founded and not founded in Malmö

$p < 0.05$, $n = 40$

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
The Oresund Bridge allows us to establish connections with other (foreign) firms and thus develop our business	Equal variances assumed	,892	,351	-,307	37	,761	-,30242	,98580	-2,29985	1,69501
	Equal variances not assumed			-,358	13,784	,726	-,30242	,84478	-2,11696	1,51213
Malmö's labor market for workers in the new digital media sector is thick	Equal variances assumed	1,805	,187	-,454	37	,653	-,43145	,95083	-2,35802	1,49512
	Equal variances not assumed			-,544	14,489	,595	-,43145	,79334	-2,12763	1,26473
We know that we can attract employees to work with us in Malmö because the general costs of living are affordable	Equal variances assumed	,864	,359	,795	38	,432	,56250	,70754	-,86985	1,99485
	Equal variances not assumed			,847	11,720	,414	,56250	,66390	-,88785	2,01285
Our firm is actively involved in the strategies that the city of Malmö develops for the creative industries	Equal variances assumed	3,921	,055	,100	38	,920	,09375	,93303	-1,79508	1,98258
	Equal variances not assumed			,141	20,269	,889	,09375	,66399	-1,29014	1,47764

Since all the p-values are above $p=0.005$, we assume that there are no statistically significant differences in the sample regarding the hard factors.

4.2.3 Soft factors – young and old firms

Old firms defined by those that were founded before 2004, young firms are consequentially those founded after 2004.

$p < 0.05$, $n = 40$

		Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
We can make use of Malmö University as a resource for finding future employees	Equal variances assumed	,042	,838	-,211	38	,834	-,16846	,79987	-1,78771	1,45079	
	Equal variances not assumed			-,228	14,813	,822	-,16846	,73754	-1,74222	1,40531	
As a firm we do make use (for business purposes) of public and private places in the city of Malmö	Equal variances assumed	5,639	,023	2,248	38	,030	2,25448	1,00278	,22447	4,28449	
	Equal variances not assumed			3,076	24,935	,005	2,25448	,73291	,74482	3,76414	
We do not care about the location of our direct competitors, we do not pay attention if they are located in Malmö	Equal variances assumed	1,187	,283	,242	37	,810	,21111	,87382	-1,55942	1,98164	
	Equal variances not assumed			,212	11,147	,836	,21111	,99600	-1,97755	2,39977	
We do participate in many activities that involve firms that are part of the same cluster	Equal variances assumed	2,987	,092	-,125	38	,901	-,11828	,94696	-2,03529	1,79873	
	Equal variances not assumed			-,158	20,262	,876	-,11828	,75040	-1,68228	1,44572	

“As a firm we do make use (for business purposes) of public and private places in the city of Malmö” – $p=0.023$ consequentially assumes that there is not an equal variance, thus $p=0.005$ is the new value that rejects H_0 . There is a statistically significant difference between young and old firms and the use they make of public and private spaces for business purposes. Old firms scored $M=7.2222$ and young firms scored $M=4.9677$, indicating that old firms do make more use of the city’s public and private spaces. A reason behind this might be the knowledge of the city that old firms have, compared to younger and newly established ones.

Other than this factor, the others did not show any statistically significant differences.

4.2.4 Hard factors – young and old firms

$p < 0.05$, $n = 40$

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Malmö's labor market for workers in the new digital media sector is thick	Equal variances assumed	4,960	,032	,710	37	,482	,64444	,90764	-1,19461	2,48350
	Equal variances not assumed			,919	22,197	,368	,64444	,70120	-,80901	2,09790
Malmö's labor market for new digital media workers is facing tough competition from Copenhagen	Equal variances assumed	,631	,432	-,711	35	,482	-,46825	,65834	-1,80477	,86826
	Equal variances not assumed			-,793	16,535	,439	-,46825	,59067	-1,71714	,78063
We know that we can attract employees to work with us in Malmö because the general costs of living are affordable	Equal variances assumed	6,904	,012	,384	38	,703	,26165	,68205	-1,11908	1,64238
	Equal variances not assumed			,546	27,801	,589	,26165	,47895	-,71975	1,24305
Our firm is actively involved in the strategies that the city of Malmö develops for the creative industries	Equal variances assumed	5,583	,023	,739	38	,464	,65591	,88751	-1,14076	2,45259
	Equal variances not assumed			1,001	24,257	,327	,65591	,65537	-,69594	2,00777

“Malmö’s labor market for workers in the new digital media sector is thick” – $p=0.032$ consequentially assumes that there is not an equal variance, thus $p=0.368$ is the new value and since it is higher than 0.05 , H_0 is retained. There is no statistically significant difference between young and old firms in regards of the perception of Malmö’s labor market for new digital media workers.

“We know that we can attract employees to work with us in Malmö because the general costs of living are affordable” – $p=0.012$ consequentially assumes that there is not an equal variance, thus $p=0.589$ is the new value and since it is higher than 0.05 , H_0 is retained. There is no statistically significant difference between young and old firms in regards of the general costs of living.

“Our firm is actively involved in the strategies that the city of Malmö develops for the creative industries” – $p=0.023$ consequentially assumes that there is not an equal variance, thus $p=0.327$ is the new value and since it is higher than 0.05 , H_0 is retained. There is no statistically significant difference between young and old firms in regards to the strategies that are being developed for the creative industries.

4.3 Mann-Whitney test for non-normally distributed variables

4.3.1 Soft factors – firms founded and not founded in Malmö

Test Statistics^a

	It is important for our firm to be located in a city that is tolerant towards other nationalities, ethnicities and minorities	We do prioritize to do business and develop our firm in a location that is tolerant and open towards everyone	As a firm, we work closely with interns that are enrolled to a local educational institution	It is important for our firm and our employees to have access to a variety of bars, pubs, restaurants and other similar places	As a firm we do make use (for business purposes) of public and private places in the city of Malmö	It is important for our firm to be closely located to other firms that are doing similar things	We do not care about the location of our direct competitors, we do not pay attention if they are located in Malmö	We do participate in many activities that involve firms that are part of the same cluster
Mann-Whitney U	112,000	127,500	70,500	101,500	115,500	103,500	71,500	87,500
Wilcoxon W	148,000	163,500	598,500	137,500	151,500	139,500	567,500	123,500
Z	-,558	-,017	-1,962	-,906	-,425	-,839	-1,852	-1,383
Asymp. Sig. (2-tailed)	,577	,986	,050	,365	,671	,401	,064	,167
Exact Sig. [2*(1-tailed Sig.)]	,607 ^b	,987 ^b	,051 ^b	,377 ^b	,678 ^b	,415 ^b	,067 ^b	,174 ^b

a. Grouping Variable: Where was the firm established?

b. Not corrected for ties.

The data output shows that for the variable “As a firm we work closely with interns that are enrolled to a local educational institution”, $p=0.050$. Therefore, H_0 is rejected, thus there is a statistically significant difference between firms founded and not founded in Malmö and how they work with interns.

4.3.2 Hard factors – firms founded and not founded in Malmö

Test Statistics^a

	In the context of business meetings, the Öresund Bridge is important for our firm	The proximity to Copenhagen International Airport Kastrup is an important resource for our firm	Malmö's labor market for new digital media workers is facing tough competition from Copenhagen	The costs of operating in Malmö are affordable	The survival of our firm does not depend at all on any subsidies
Mann-Whitney U	122,500	125,000	69,000	91,500	105,500
Wilcoxon W	158,500	161,000	534,000	127,500	141,500
Z	-,188	-,103	-1,424	-1,323	-,807
Asymp. Sig. (2-tailed)	,851	,918	,154	,186	,420
Exact Sig. [2*(1-tailed Sig.)]	,855 ^b	,934 ^b	,172 ^b	,222 ^b	,454 ^b

a. Grouping Variable: Where was the firm established?

b. Not corrected for ties.

The data output shows that there are no statistically significant differences in the sample. H_0 that firms founded in Malmö or elsewhere do not show any differences regarding the hard factors, is retained.

4.3.3 Soft factors – Young/old firms

Test Statistics^a

	It is important for our firm to be located in a city that is tolerant towards other nationalities, ethnicities and minorities	We do prioritize to do business and develop our firm in a location that is tolerant and open towards everyone	As a firm, we work closely with interns that are enrolled to a local educational institution	It is important for our firm and our employees to have access to a variety of bars, pubs, restaurants and other similar places	It is important for our firm to be closely located to other firms that are doing similar things
Mann-Whitney U	134,500	137,000	120,000	102,000	110,000
Wilcoxon W	630,500	633,000	616,000	598,000	155,000
Z	-,167	-,083	-,637	-1,228	-,968
Asymp. Sig. (2-tailed)	,867	,934	,524	,220	,333
Exact Sig. [2*(1-tailed Sig.)]	,874 ^b	,949 ^b	,545 ^b	,235 ^b	,354 ^b

a. Grouping Variable: Old/Young firms

b. Not corrected for ties.

The data output shows that there are no statistically significant differences in the sample.

H0 that young and old firms do not show any differences regarding the soft factors, is retained

4.3.4 Hard factors – Young/old firms

Test Statistics^a

	In the context of business meetings, the Öresund Bridge is important for our firm	The proximity to Copenhagen International Airport Kastrup is an important resource for our firm	The Öresund Bridge allows us to establish connections with other (foreign) firms and thus develop our business	The costs of operating in Malmö are affordable	The survival of our firm does not depend at all on any subsidies
Mann-Whitney U	134,000	110,500	111,000	109,000	132,000
Wilcoxon W	179,000	155,500	156,000	154,000	628,000
Z	-,180	-,950	-,809	-1,059	-,258
Asymp. Sig. (2-tailed)	,857	,342	,418	,290	,797
Exact Sig. [2*(1-tailed Sig.)]	,874 ^b	,354 ^b	,440 ^b	,337 ^b	,824 ^b

a. Grouping Variable: Old/Young firms

b. Not corrected for ties.

The data output shows that there are no statistically significant differences in the sample.

H0 that young and old firms do not show any differences regarding the hard factors, is retained

4.4 Qualitative data analysis

The qualitative data was collected through semi-structured interviews with four firms/entrepreneurs. The interviews were conducted face to face, either in the office of the firms or at cafes. The interview guide helped me to understand which topics to discuss. Bryman (2012) discusses the need of an interview guide in semi-structured interviews and he states that topics and themes should be prepared beforehand in order to conduct the interview in a natural way.

4.3.1 Open ended questions

Firstly, a short summary of the answers from the open ended questions in the questionnaire. The questions asked for three advantages and three disadvantages of being located close to Copenhagen. (The “x” represents the amount of times that the same answer was recorded)

Main advantages:

- **Airport (x16)**
- **Bigger market (x12)**
- **HQ's of big companies (x4)**
- **International (x4)**
- **Close to clients (x3)**
- **Inspirational (x3)**
- **Work force (x3)**
- **Capital city (x2)**
- Cross cultural collaborations
- Culture
- Increases adaptability to new trends
- I get in contact and get to work for well-established companies
- I get new attention for my projects since Danish people don't think as Swedes
- I am connected to a city that is influenced by the European continent
- Shopping
- Possibility to live in Copenhagen and work in Malmö, and vice versa
- Stockholm thinks that Copenhagen is cool
- Close to a relaxing place, Close to a relaxing place
- Good educational institutions
- Conferences
- Great source of expertise
- Networking
- Suppliers
- Financial departments
- Close to the startup scene
- Great source of expertise
- Networking

Main disadvantages:

- **Competition (x8)**
- **Expensive train if you don't commute every day (x5)**
- **Lots of new administration and bureaucracy in a new country (x5)**
- **Different business culture (x2)**
- They can copy the startup idea with bigger investors
- Governmental (Danish) investment to competitor startups
- Competitor's access to more resources
- Potential clients sometimes chose Copenhagen instead of Malmö for bigger projects
- Copenhagen is often very careful with new ideas
- Higher salaries in Malmö
- Some brain drain
- Danish people
- Traffic
- Malmö is in the shadow of Copenhagen
- The costs of living in Sweden are more expensive when Danish people move here

4.3.2 Interviews

In this section some of the comments of the responses are going to be presented. The respondents got a general introduction to the topic of research and then we discussed the data output of the quantitative data analysis. Three data sets were prioritized; the bridge, the labor market for new digital media workers and the clustering of firms. The reason for this specific selection of topics is due to the fact that the bridge is the landmark of the region; the labor market for new digital media workers is an interesting topic if we consider that Copenhagen, and its labor market, is just 30 minutes away; the clustering of firms is somehow connected to the bridge since the old port of Malmö has gone through a revitalization process and has become a district renowned for the presence of new digital media firms and educational institutions. This process was initiated at the same time as the bridge was built, late 1990's – early 2000's. In the next section, some of the main points from the interviews are being summarized to capture the discussion and the answers gained from the interviews.

F1 – Founder of a firm that is consulting in idea and innovation management.

F2 – Manager of a well-established web-studio (pre-bridge)

F3 – Freelancing product designer

F4 – Freelancing interaction designer

A – Me, the researcher

4.4 Summary of the qualitative data

The discussion during the interviews resulted in many interesting insights. Firstly, the two older firms (F1 and F2) seemed to have a quite similar perception of the hard and soft factors. One of the firms had been in Malmö for quite some time, since 1996, and the other firm had been in Malmö a few years while the founder had been around in the city for much longer. They both shared the view that the bridge has drawn a lot of attention to the city, and the Öresund Region in general. Both of these two firms had an established network of clients, mostly on the Swedish market but also internationally. For them, the bridge has meant a lot, since they have both been in Malmö when the city was still recovering from the tremendous economic downturn of the 1980s. The bridge had been a wave of fresh and positive air.

One of the respondents said that they would have been in Malmö even if the bridge never existed, however, the same respondent said that the bridge did help the city to develop. Even if their business is not using the bridge, they still felt like it was one of the sparkles that ignited the development in the city. By talking to the “old” firms, I got the feeling that these people understood the importance of the bridge and how it enabled the cluster to grow and also enabled people to move.

The younger firms/entrepreneurs also shared some interesting insights. As they both (F3 and F4) were running small firms, they consequentially did not make use of the bridge for business purposes, nor the airport. However, they both agreed on the fact that the convenience of the bridge and the closeness to Copenhagen were some of the factors that made them move to Malmö. Something that the younger firms shared, that never came up in the discussion with the older firms, was the clash of cultures between Sweden and Denmark. One of the respondents revealed that he had tried to enter the Danish market, but that he encountered barriers. The Danish are said to be proud of their designers and what they created and there is not really a need for Swedish designers to go over there.

Taking this answer into consideration when looking the survey we can see that in general, the respondents did not perceive Copenhagen as a threat to Malmö in terms of attracting new digital media workers to move to Denmark. One of the reasons might be that the Danish put up a resistance to different culture. As all the interviews revealed, the cluster for new digital media in Malmö has grown strong

because people are staying in Malmö. It should be further researched to what extent that the clash of cultures between Denmark and Sweden actually is in favor for the Swedish side to create a strong cluster for the new digital media sector, as it has done during the last years.

Lastly, looking back at the quantitative data output, we found two variables that showed statistically significant differences. The first one is the assumption how much firms founded and not founded in Malmö work with interns. The results showed that there is an indication that firms not founded in Malmö do work more with interns ($M=7.2500$) than firms founded in Malmö ($M=5.1875$). This might be related to the fact that Malmö does not have an old university and therefore it does not consequentially have a long tradition of having students in the city. Firms, founded in Malmö, might therefore not take students into consideration for an internship for the simple reason that they are not used to pick up interns.

The second variable that showed statistically significant differences is the assumption on the use of public and private space for business purposes. Here, old firms scored higher ($M=7.222$) than young firms ($M=4.9677$). An indication might be that the older ones know the city better and that they are more aware of where events and other business related activities might take place, outside of the office. Also, younger firms might have a more limited budget, and they take therefore not into consideration the possibility of organizing events or other business related activities.

4.5 Conclusion on the triangulation method

The results gained from the quantitative data collection (survey) have been discussed and crosschecked with the results of the qualitative data output (interviews). We can see that the different outputs did generate similar results. For example the general positive attitude towards the bridge was visible both in the quantitative output as in the qualitative. Furthermore, the qualitative output generated data gave more depth to the numbers, enabling us to understand some of the thoughts that firms and entrepreneurs have in the context of locational choices. During the interviews, all factors and results generated from the survey were discussed, some to a larger extent than others. The results that are not summarized in this research did also show similar opinions in both the quantitative and qualitative data output.

The triangulation method served as an important tool to crosscheck the different data output. It helped the researcher to understand to a greater extent why some of the responses were positive or negative. The crosschecking of the data was also important in terms of addressing the empirical findings in the final part – 5, Conclusions.

5 Conclusions

The aim of this research has been to understand if there are any particular factors that attract and retain firms to stay in Malmö. The new digital media sector has grown on a global level, and Malmö has been in the center of discussion on a national level. Several multinationals firms that are part of the new digital media sector have chosen Malmö to be home to their headquarters (Ubisoft, Mynewsdesk, King Gaming). An interesting aspect, and a pivotal line of thought of the research, is the role of Copenhagen and the Öresund Bridge. In the very beginning of the research, the impression was that Malmö played a minor role in the development of the new digital media sector in comparison to Copenhagen. However, the results gained from the empirical findings indicate that Malmö actually is more developed in some aspects, sector wise.

However, the focus of the research is not on the comparison Copenhagen-Malmö, but rather on what makes Malmö an attractive place for new digital media firms. The central research question of this research has been:

RQ: What factors attract and retain digital media firms in Malmö?

I have been looking at both hard and soft factors as attraction forces, and to better understand what firms are attracted by, I have divided them into four different groups; (1) Firms founded in Malmö; (2) Firms not founded in Malmö; (3) Young firms; (4) Old firms. The group division was necessary in order to understand what kind of firms that are attracted by certain factors. The comparison of the group analysis was made with a statistical test, and two groups of hypotheses were the basis of this test.

First group of hypotheses

H0 = There are no differences between firms established in Malmö and Lund regarding the **soft** factors being the main attraction/retention force.

H1 = H0 \neq H1 – There are differences between firms established in Malmö and Lund regarding the **soft** factors being the main attraction/retention force.

H0 = There are no differences between firms established in Malmö and Lund regarding the **hard** factors being the main attraction/retention force.

H1 = H0 \neq H1 – There are differences between firms established in Malmö and Lund regarding the **hard** factors being the main attraction/retention force.

The first group of hypotheses was concerned with soft factors for firms founded and not founded in Malmö. From the data output we can see that there is one factor that shows a statistically significant difference between firms founded and not founded in Malmö – “As a firm, we work closely with interns that are enrolled to a local educational institution” – $p=0.050$. The scores indicate that firms not from Malmö tend to work more with interns ($M=7.2500$) than firms from Malmö ($M=5.1875$). Other than this factor, there are no statistically significant differences regarding the soft factors.

The second group of hypotheses was concerned with the hard factors for firms founded and not founded in Malmö. From the data output we can see that there are not statistically significant differences. The conclusion for this group of hypotheses is that firms founded in either Malmö or elsewhere do not show any differences regarding the importance of hard factors. Therefore, H0 is retained.

Second group of hypotheses

H0 = There are no differences between old and young firms regarding **soft** factors being the main attraction/retention force.

H1 = H0 \neq H1 – There are differences between old and young firms regarding **soft** factors being the main attraction/retention force.

H0 = There are no differences between old and young firms regarding **hard** factors being the main attraction/retention force.

H1 = H0 \neq H1 – There are differences between old and young firms regarding **hard** factors being the main attraction/retention force.

The first group of hypotheses was concerned with the soft factors for young and old firms, those founded after 2004. From the data output we can see that there is only one factor that is statistically significant – “As a firm we make use (for business purposes) of public and private places in the city of Malmö” – $p=0.005$. The scores indicate that old firms ($M=7.2222$) do make more use of public and private spaces for business purposes than young firms ($M=4.9677$). Other than this factor, there are no statistically significant differences regarding the soft factors.

The second group of hypotheses was concerned with the hard factors for young and old firms. From the data output we can see that there are no statistically significant differences in the sample. The conclusion for this group of hypotheses is that young or old firms do not show any differences regarding the importance of hard factors. Therefore, H_0 is retained.

This research has generated some interesting insights that were not on top of my mind prior to the research. The results show that firms to some extent take the bridge, and the infrastructure in general, for granted. As one of the interviewees stated: *“People tend to forget, they don't remember how difficult it was to go to Denmark before the bridge was there”*. This is a great insight from someone that has been in Malmö for a pretty long time. The newcomers might take the bridge for granted; they might see it as a natural extension of the city and therefore, it has not been ranked as a highly important factor for the development of their business.

The results of the soft factors also generated some interesting insights. First of all it confirmed that firms that are located in Malmö are ranking tolerance quite high. In a city that has the highest national percentage of foreign-born inhabitants, tolerance becomes fundamental. Furthermore, the connection between firms and universities and other educational institutions, as well as connections within the clusters, showed that firms in Malmö do appreciate these resources. This goes to show that firms in Malmö do not really feel threatened by Copenhagen, but rather confident that Malmö has the resources and capabilities to stand out as an important city in the context of new digital media firms.

The qualitative output confirmed the quantitative data. The interviews and open-ended questions in the questionnaire support the argument that Malmö is a rather strong and important city for the new digital media sector. The interviewees

further explained that Copenhagen is rather an opportunity for them, and not a threat. They are confident that Malmö is a strong and important market for new digital media; however, Copenhagen enables them to further expand their market and find new opportunities. All in all, the advantages of being located close to Copenhagen overshadowed the disadvantages, on many different levels.

Coming back to the research question. There are no factors that clearly scored higher than others, both quantitatively and qualitatively. This does not make the research pointless. The result of this research supports several theories presented in the literature review that are arguing about the importance of finding a balance between hard and soft factors. A city/location cannot become attractive merely based on either hard or soft factors, but it has to find a balance between the two. Firms in Malmö show that they are not highly dissatisfied with either one, but also not highly satisfied with either one. What is important to notice is that the cluster has reached a great level of confidence and strength. This has been done in a city that is investing in both hard and soft factors to balance the path of development.

5.1 Limitations

Due to the sample size it is difficult to draw any general conclusions on the sector as a whole. Furthermore, it seems like the attitude towards “outsiders” of the clusters is not very positive, this was experienced personally when conducting the empirical research. This factor could be improved by having more time to discuss the research problem and the relevance of the research with the managers of the incubators.

5.2 Avenues for future research

Future research could have a more broad approach in understanding the development of Malmö’s creative sector. The new digital media sector is a piece of the entire puzzle, we need to look at the rest of the pieces to understand the entire development.

6. We do prioritize to do business and develop our firm in a location that is tolerant and open towards everyone	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SD								SA	
7. Malmö's labor market for workers in the new digital media sector is thick, meaning that your firm could relatively easily find new employees	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SD								SA	
8. Malmö's labor market for workers in the new digital media sector is facing tough competition from Copenhagen and many workers are more attracted to go there than to stay in Malmö	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SD								SA	
9. We can make use of Malmö University as a resource for finding future employees	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SD								SA	
10. As a firm, we work closely with interns that are enrolled to a local (Malmö/Lund) educational institution	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SD								SA	
11. It is important for our firm and our employees to have access to a variety of bars, pubs, restaurants and other similar places	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SD								SA	
12. As a firm we do make use (for business purposes) of the facilities that the city of Malmö and other private parties have put at our disposal for leisure activities. For example to organize kick-off days, special events, etc.	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SD								SA	
13. It is important for our firm to be closely located to other firms that are doing similar things	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SD								SA	
14. We do not care about the location of our direct competitors, we do not pay attention if they are located in Malmö	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SD								SA	
15. We do participate in many activities that involve other firms that are part of the same cluster and therefor it is important for us to be located near them	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	SD								SA	

16. The costs of operating in Malmö are affordable

1 2 3 4 5 6 7 8 9 10

SD SA

17. We know that we can attract employees to work with us in Malmö because the general costs of living are affordable

1 2 3 4 5 6 7 8 9 10

SD SA

Please name **three advantages** of being close to Copenhagen:

Please name **three disadvantages** of being close Copenhagen:

18. Our firm is actively trying to be involved in the strategies that the city of Malmö develops for the creative industries

1 2 3 4 5 6 7 8 9 10

SD SA

19. The survival of our firm does **not** depend at all on any subsidies

1 2 3 4 5 6 7 8 9 10

SD SA

20. Every year we apply for grants/subsidies

Never Once 2-4 Times More than 5 times

If you apply for grants, please specify if it is from the municipality, the regional council or national entities, or other sources.

Please indicate the SNI (NACE) code of your firm and definition:

Name of the firm* **OR** main activity:

(*Optional, the name will **not** be published in the thesis or any other reports related to this research, it is only used by the researcher to keep track of the questionnaires.)

Thank You for your collaboration!

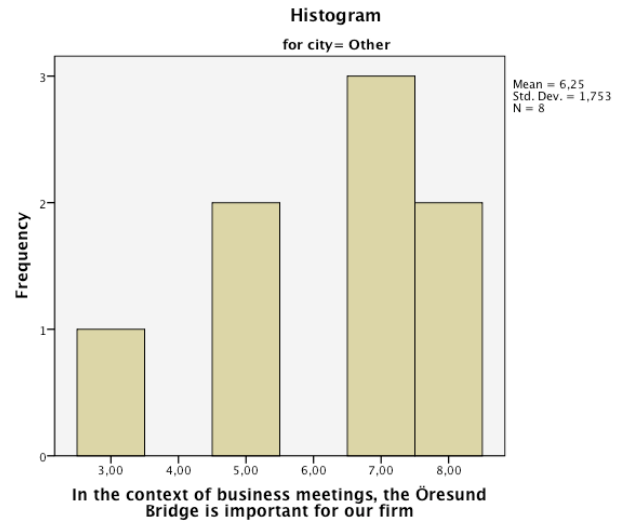
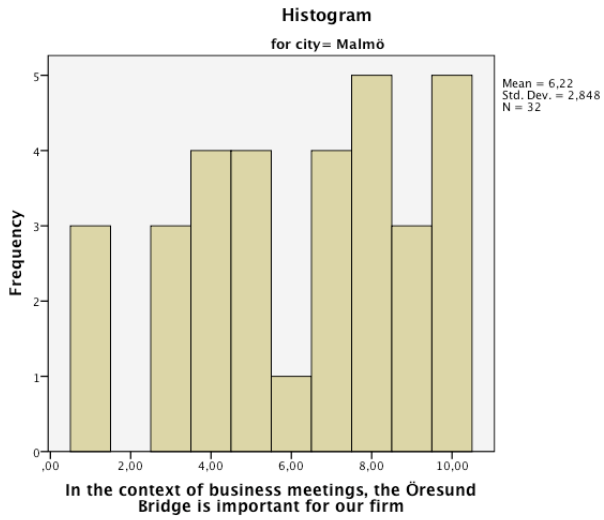
If you would like to take part of the results from this research, please leave your email address below.

Email: _____

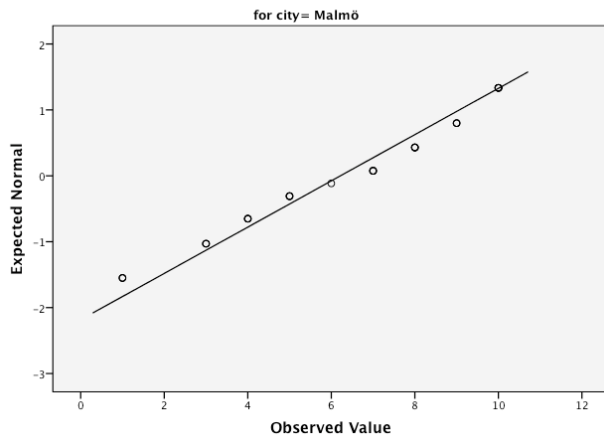
Appendix II – List of interviewees

Jonas Michanek jonas@idelaboratoriet.se	Idelaboratoriet	08.05.2014, Malmö
Mats Byback mats.byback@24hr.se	24HR Malmö AB	12.05.2014, Malmö
Tobias Pettersson mr@tobiaspettersson.com	AD & Graphic Design	12.05.2014, Malmö
Elizaveta Shkirando liza@shkirando.com	Interaction Designer	30.05.2014, Malmö

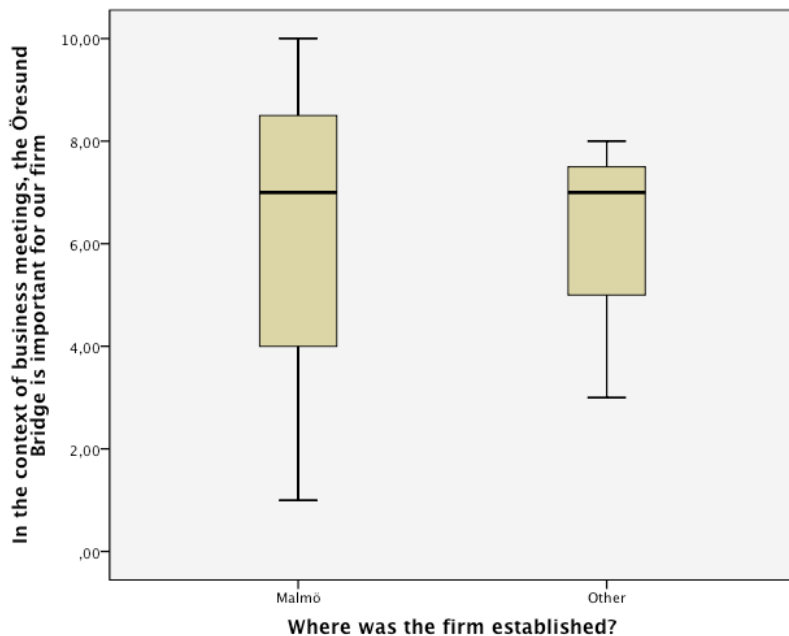
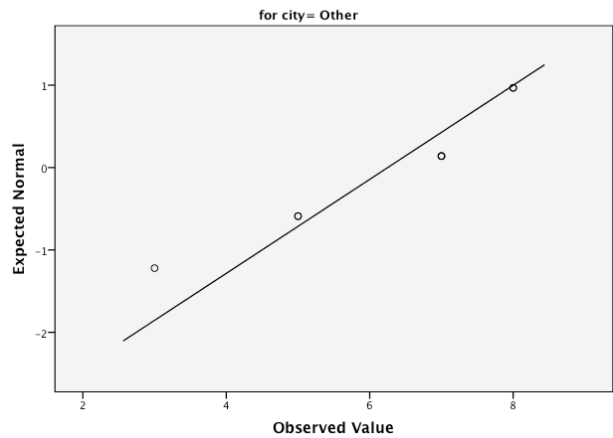
Appendix III – Test for normality (Firms founded/not in Malmö)

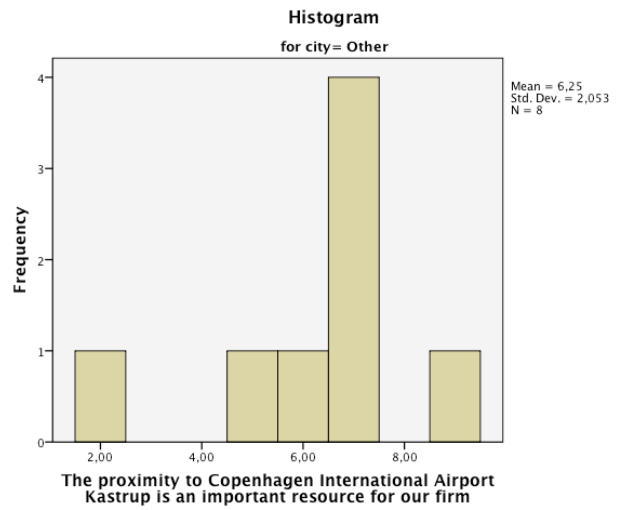
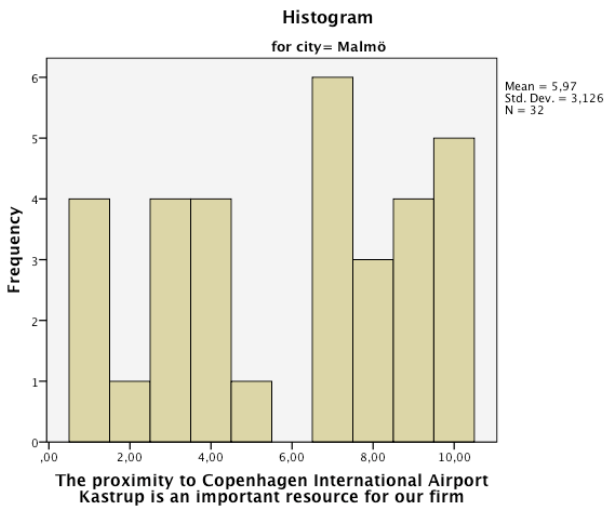


Normal Q-Q Plot of In the context of business meetings, the Öresund Bridge is important for our firm

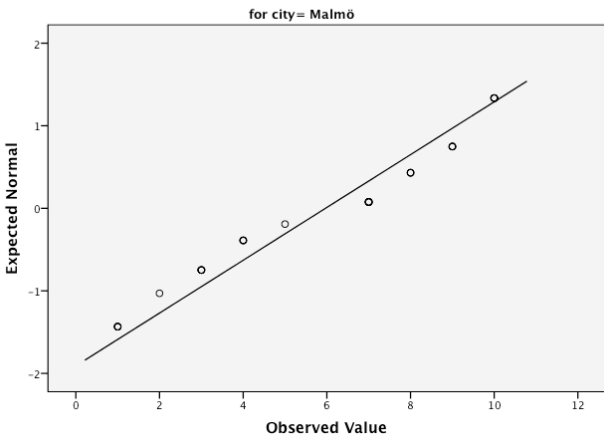


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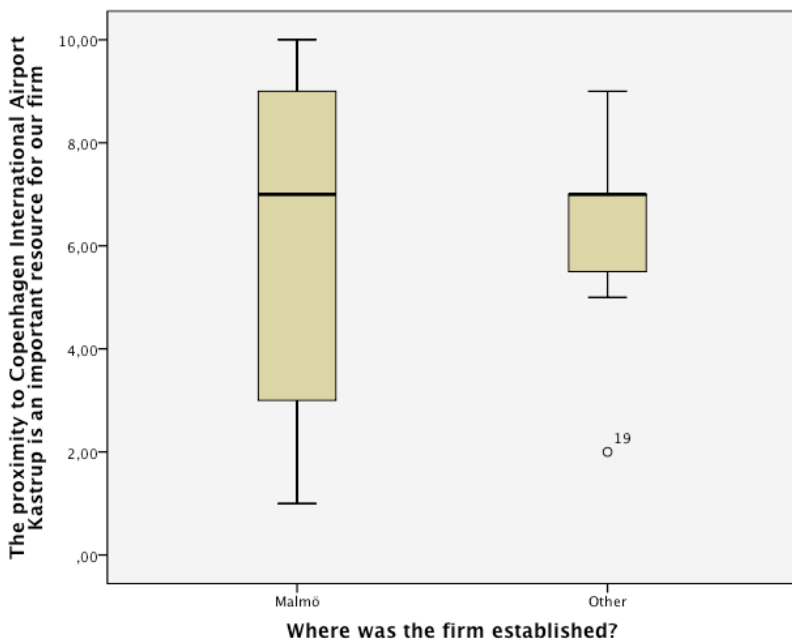
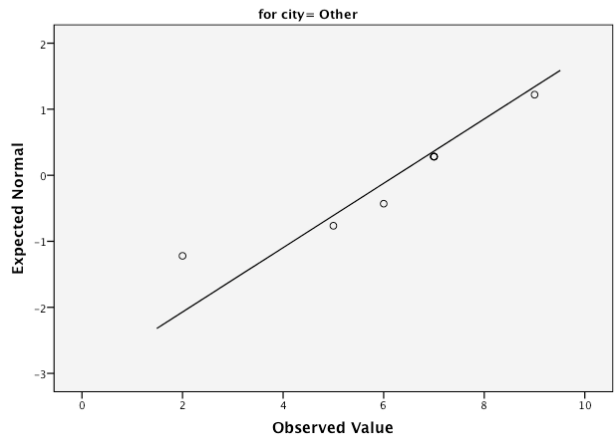


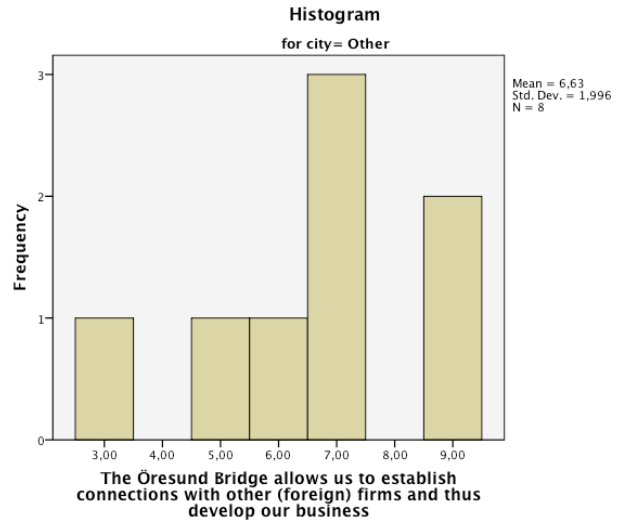
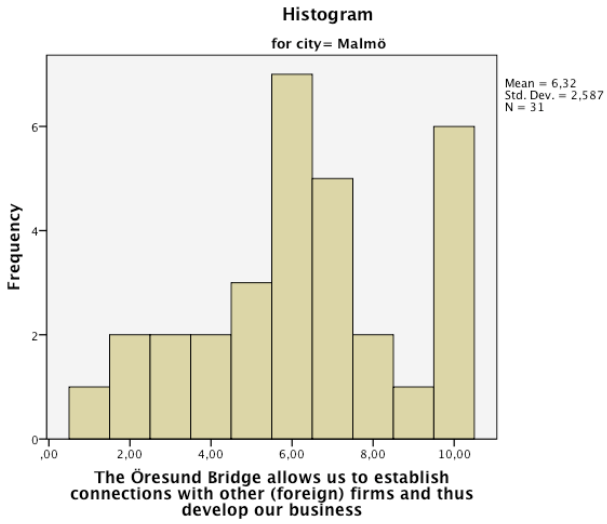


Normal Q-Q Plot of The proximity to Copenhagen International Airport
Kastrup is an important resource for our firm

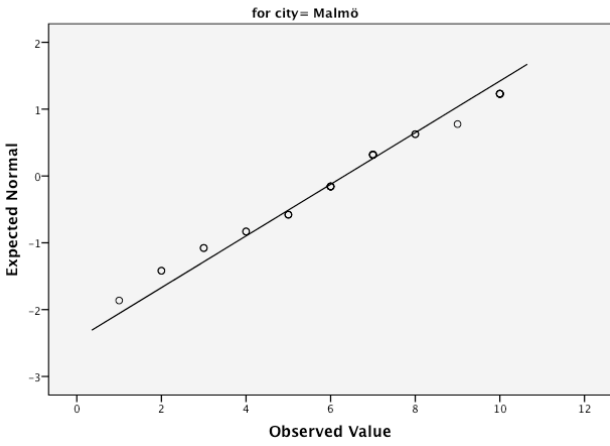


Normal Q-Q Plot of The proximity to Copenhagen International Airport
Kastrup is an important resource for our firm

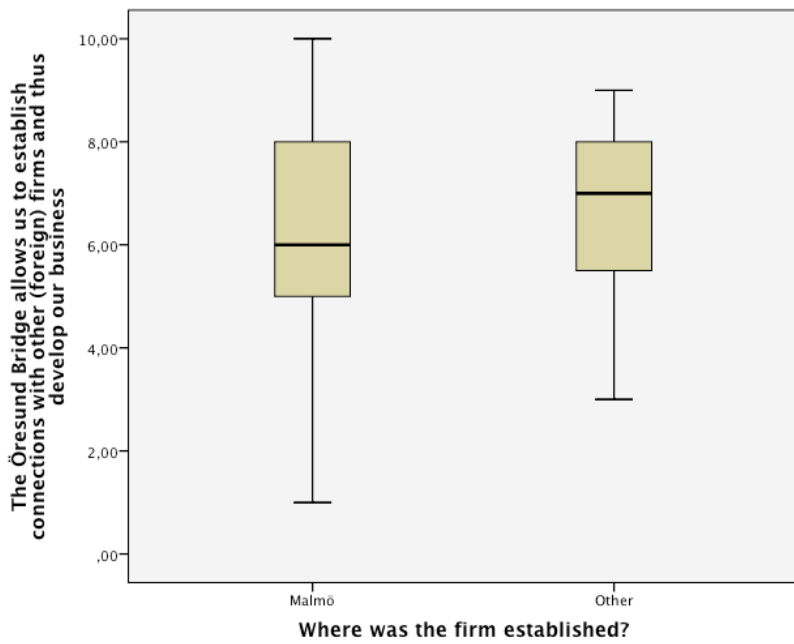
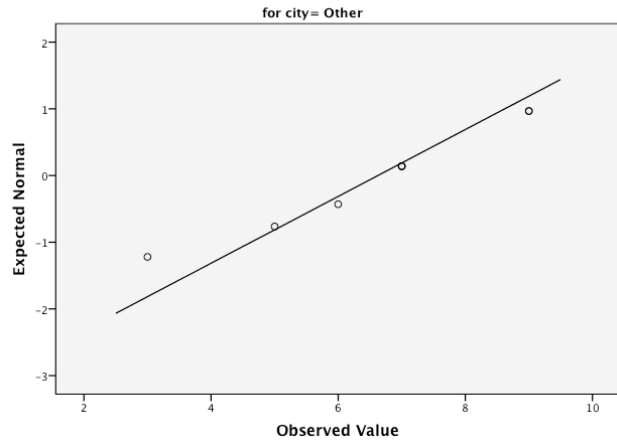


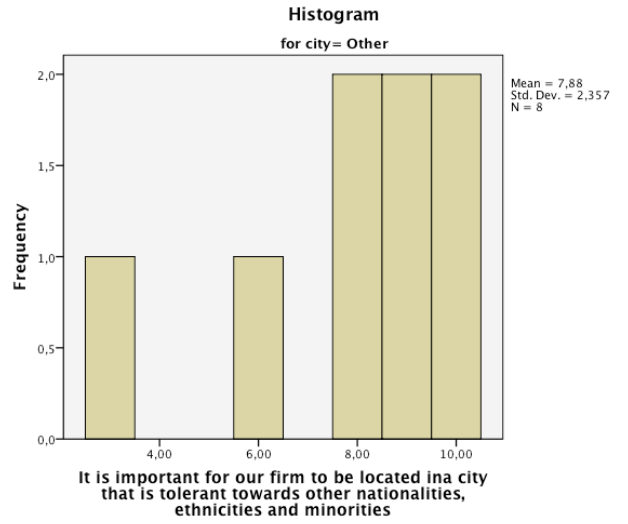
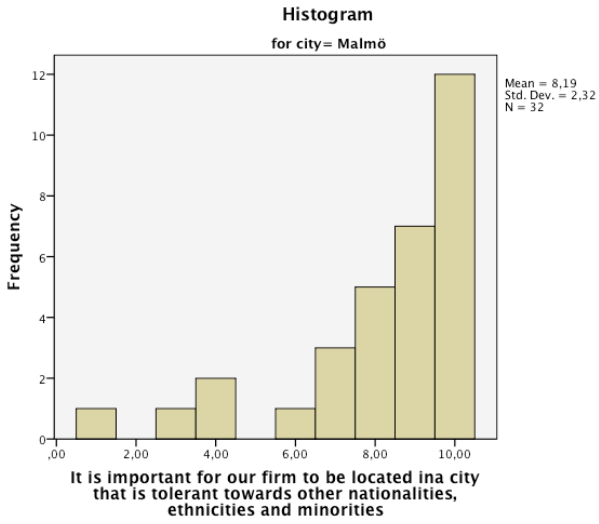


Normal Q-Q Plot of The Öresund Bridge allows us to establish connections with other (foreign) firms and thus develop our business

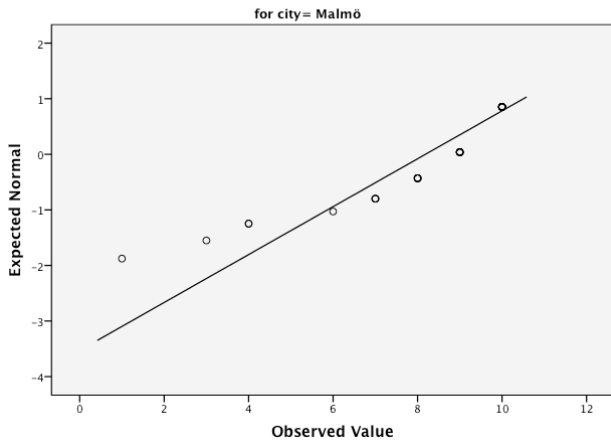


Normal Q-Q Plot of The Öresund Bridge allows us to establish connections with other (foreign) firms and thus develop our business

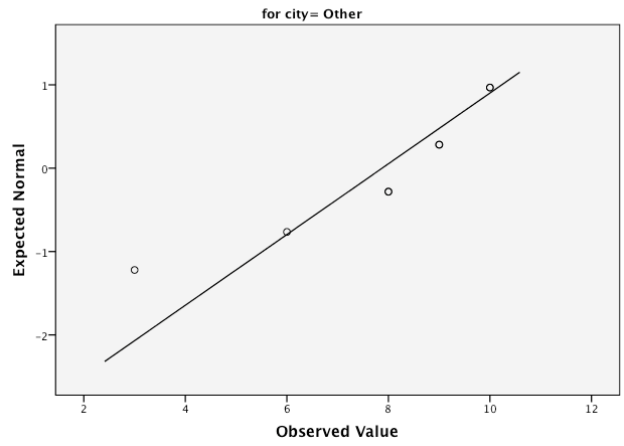




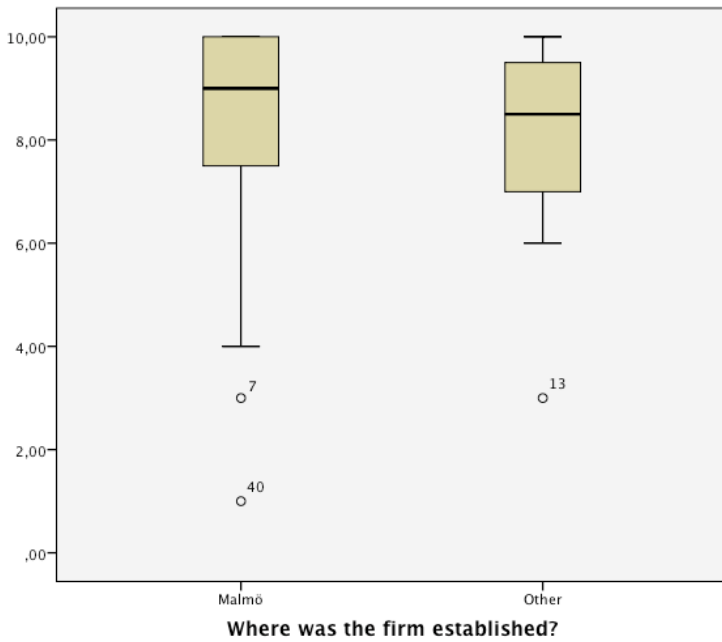
Normal Q-Q Plot of It is important for our firm to be located in a city that is tolerant towards other nationalities, ethnicities and minorities

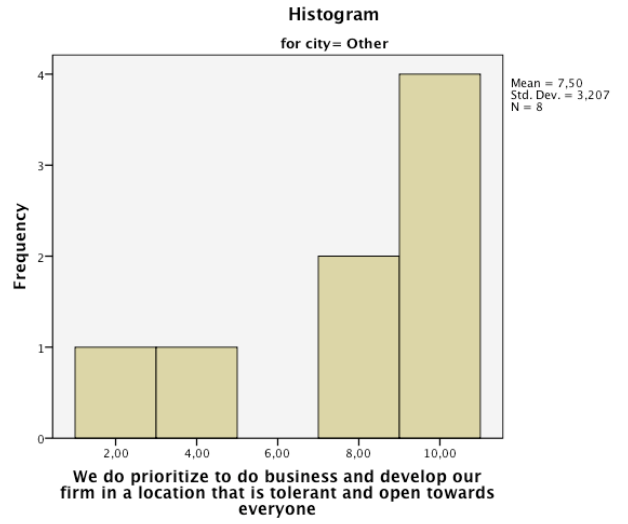
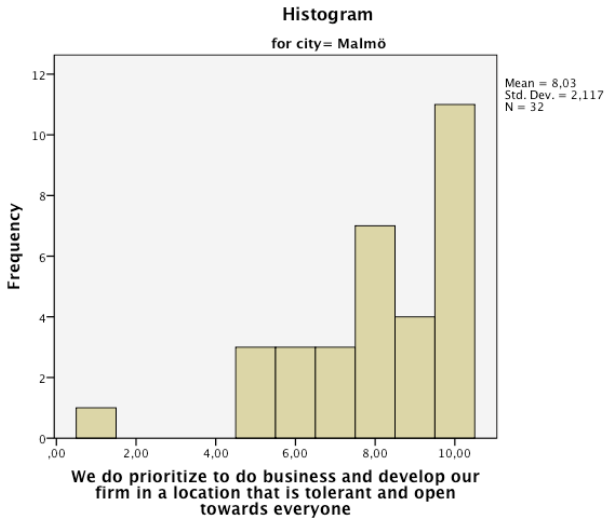


Normal Q-Q Plot of It is important for our firm to be located in a city that is tolerant towards other nationalities, ethnicities and minorities

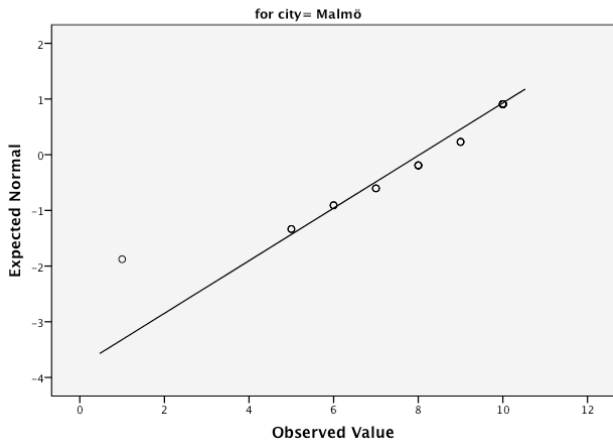


It is important for our firm to be located in a city that is tolerant towards other nationalities, ethnicities and minorities

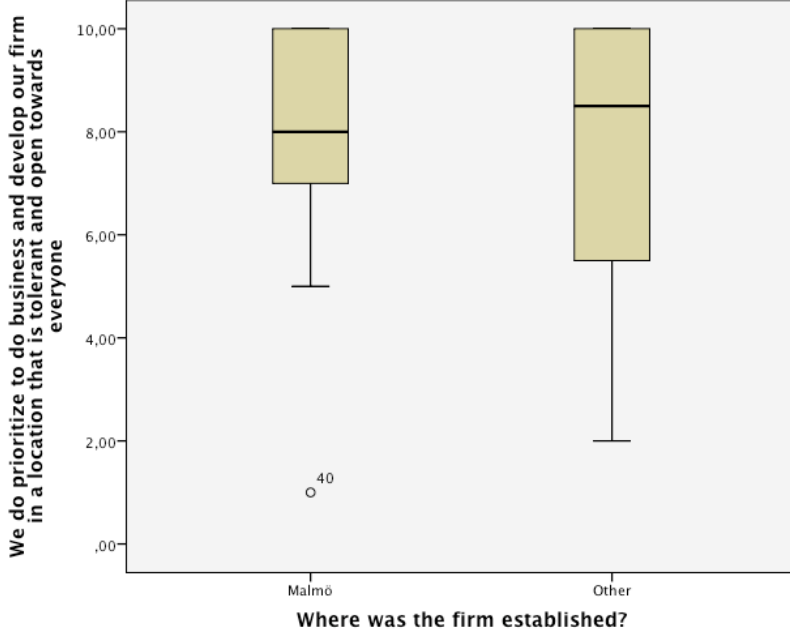
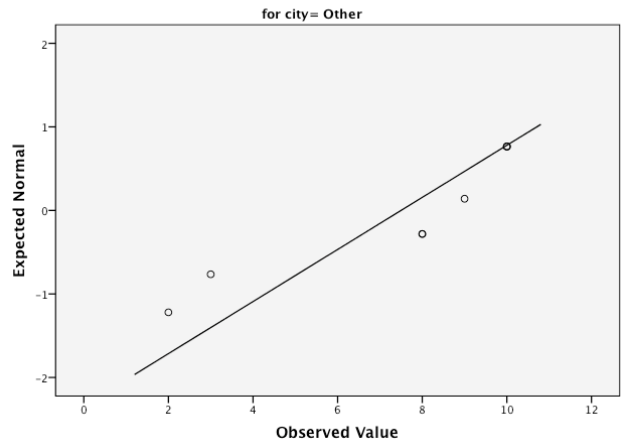


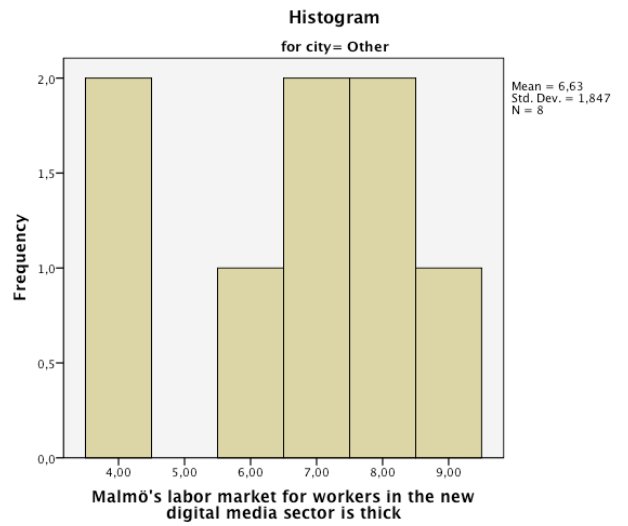
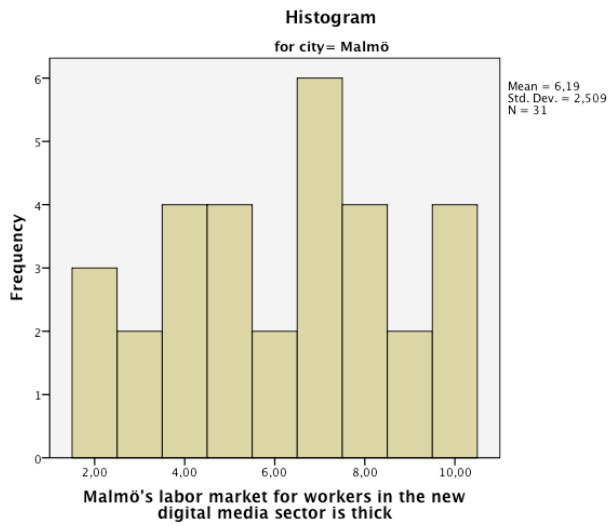


Normal Q-Q Plot of We do prioritize to do business and develop our firm in a location that is tolerant and open towards everyone

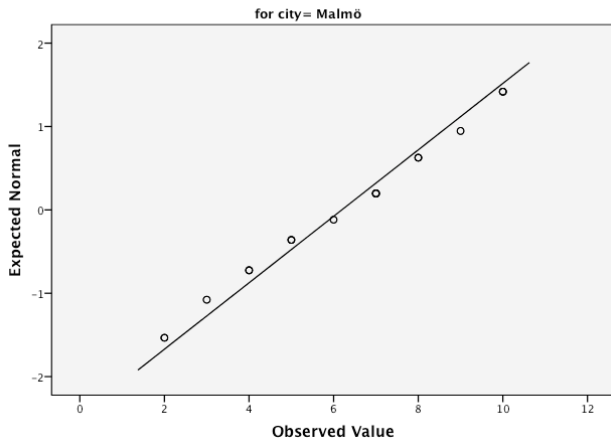


Normal Q-Q Plot of We do prioritize to do business and develop our firm in a location that is tolerant and open towards everyone

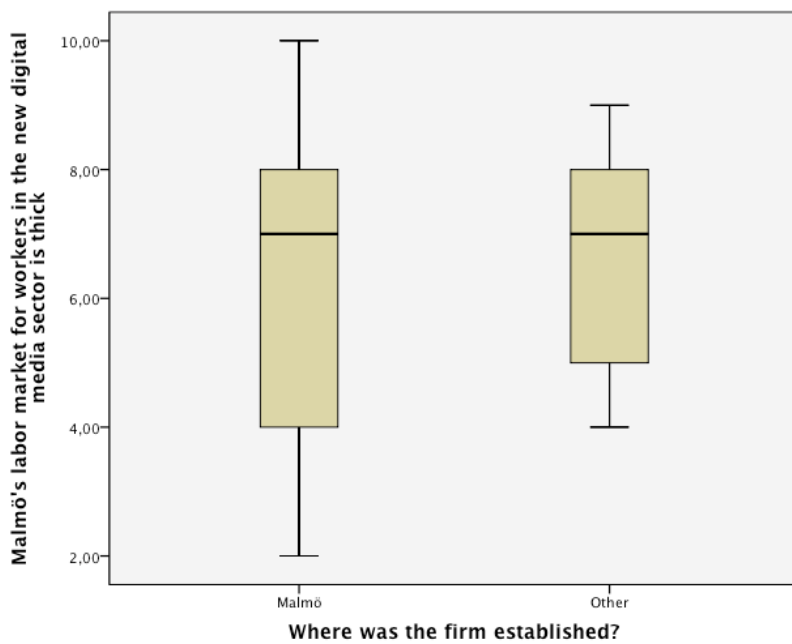
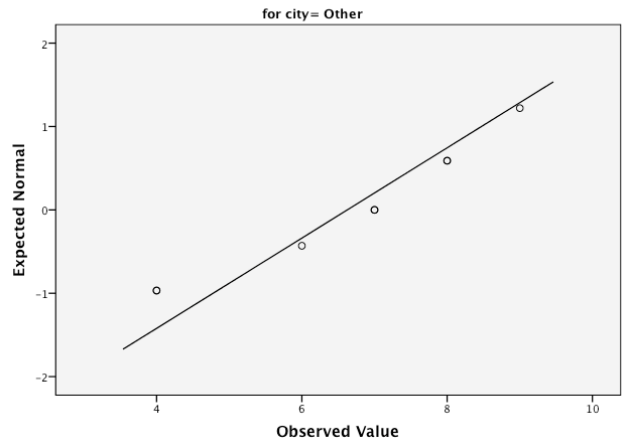


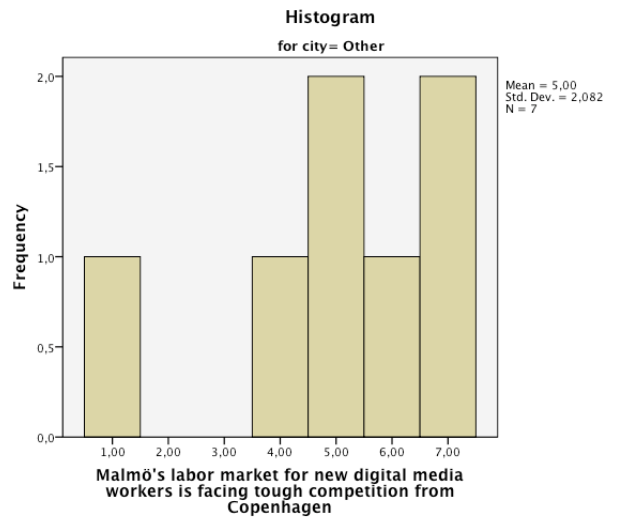
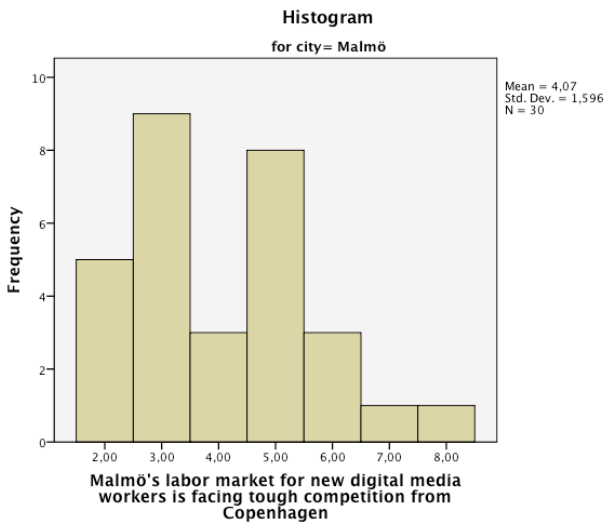


Normal Q-Q Plot of Malmö's labor market for workers in the new digital media sector is thick

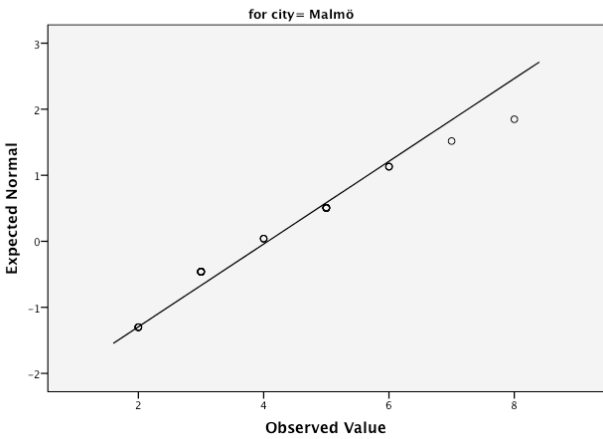


Normal Q-Q Plot of Malmö's labor market for workers in the new digital media sector is thick

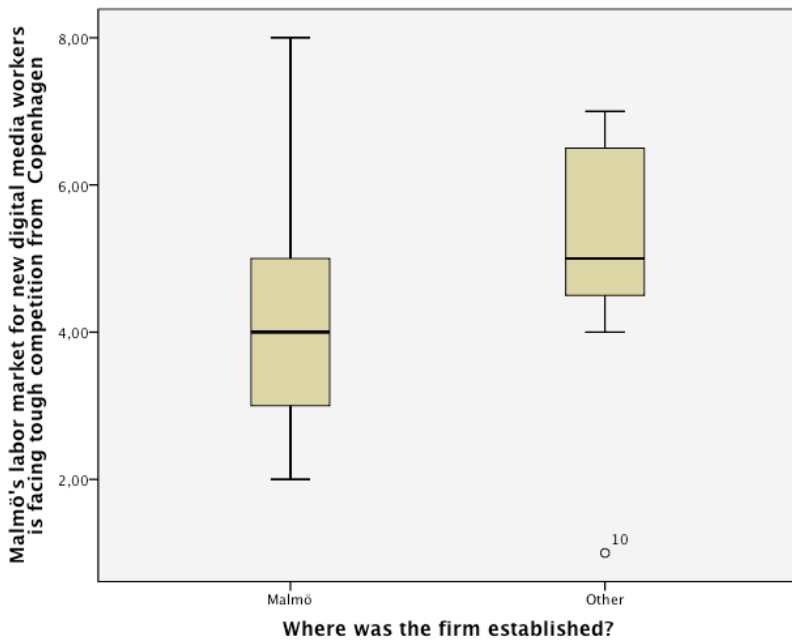
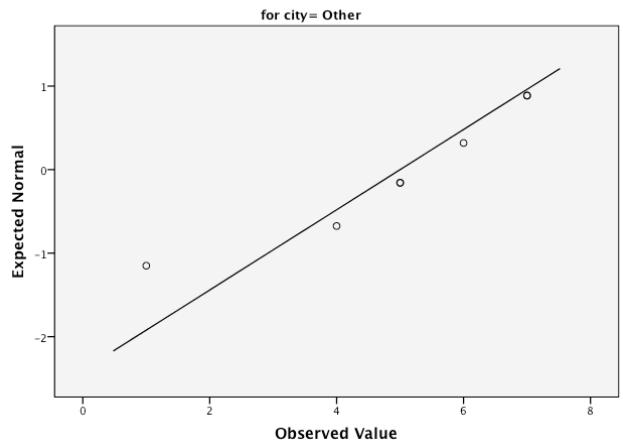


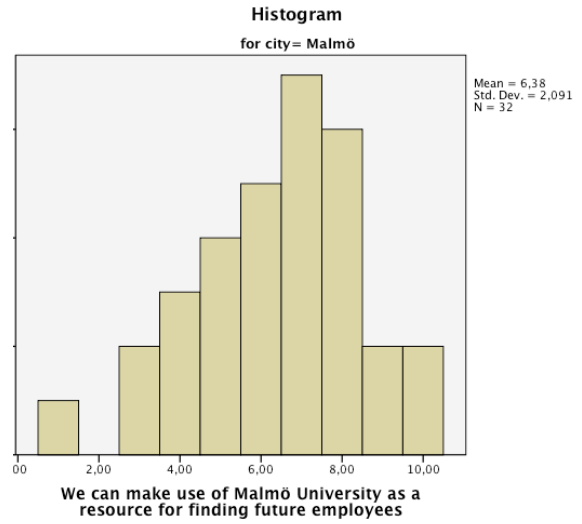
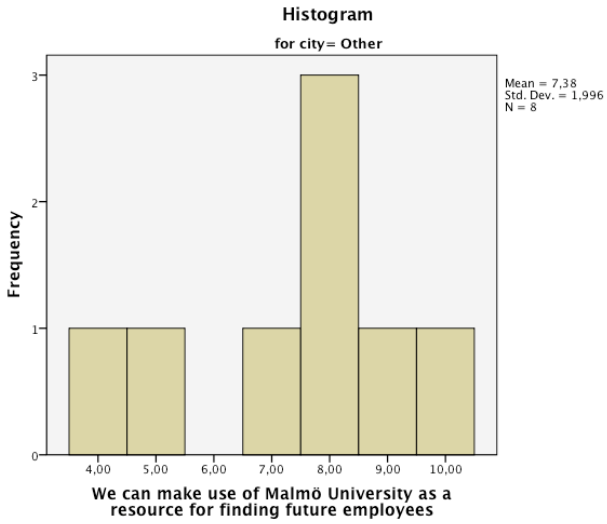


Normal Q-Q Plot of Malmö's labor market for new digital media workers is facing tough competition from Copenhagen

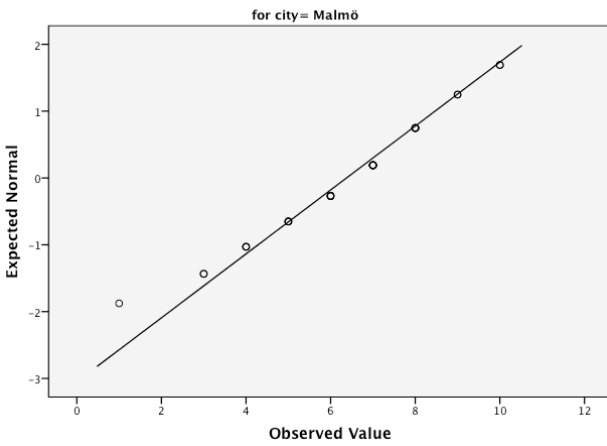


Normal Q-Q Plot of Malmö's labor market for new digital media workers is facing tough competition from Copenhagen

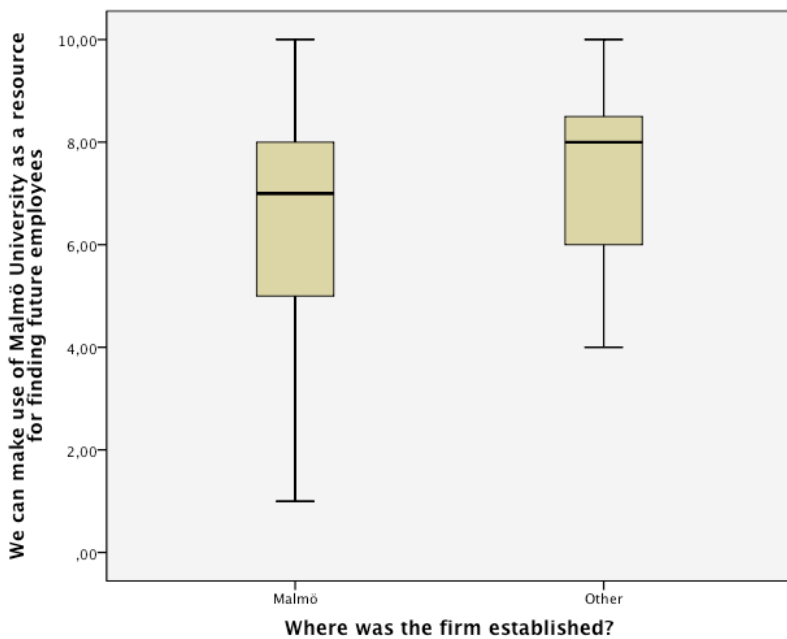
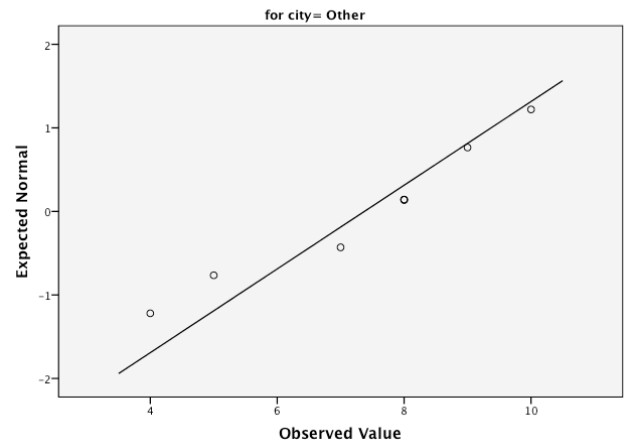


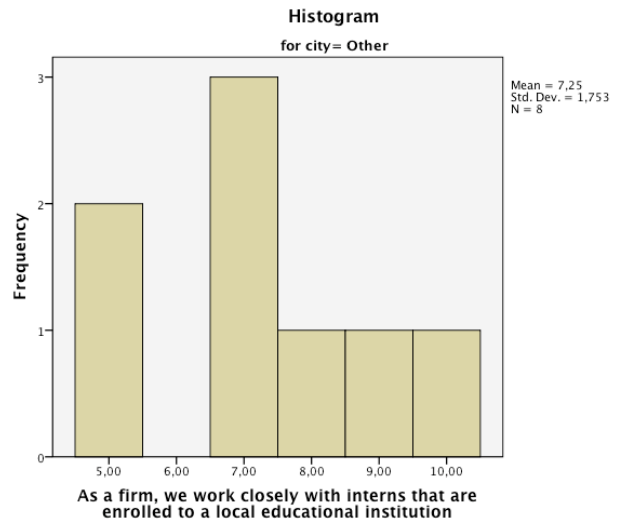
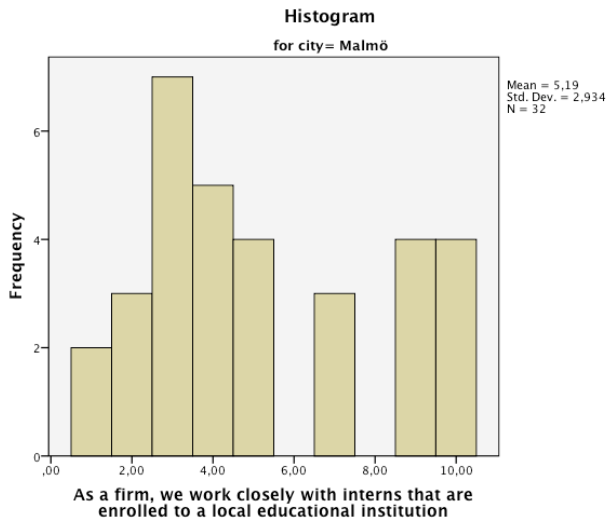


Normal Q-Q Plot of We can make use of Malmö University as a resource for finding future employees

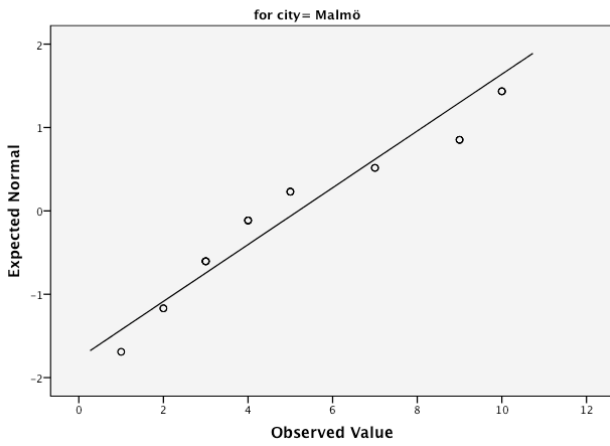


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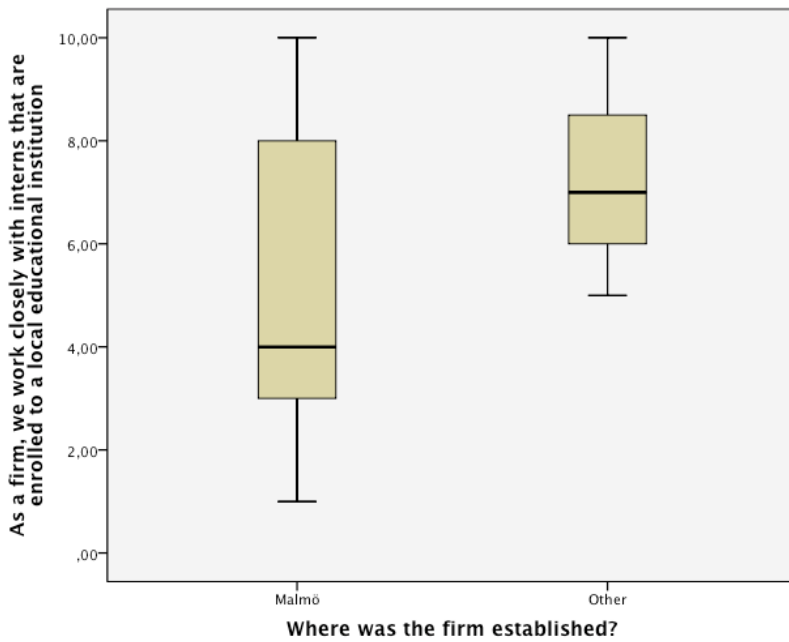
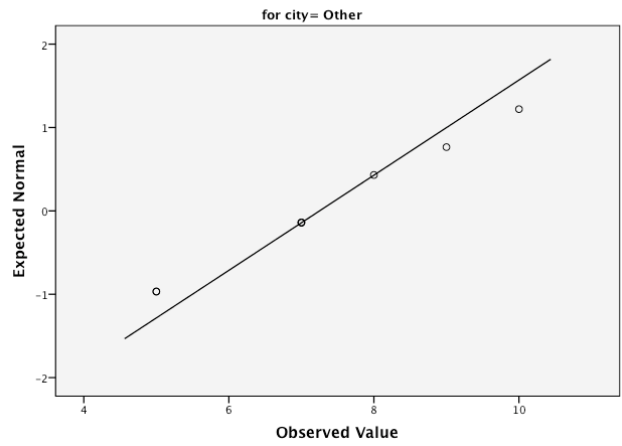


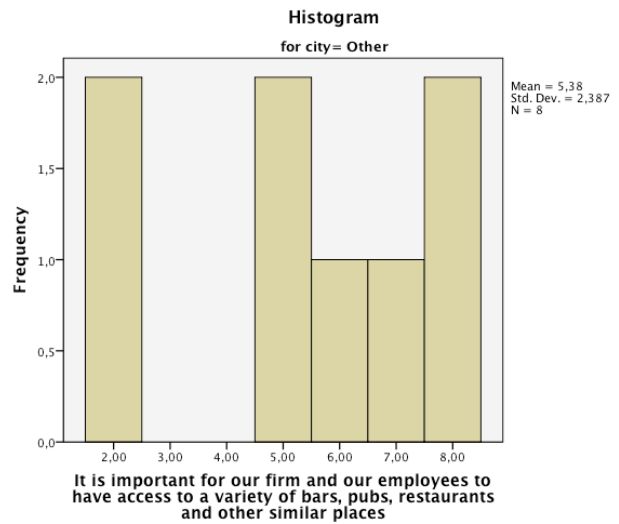
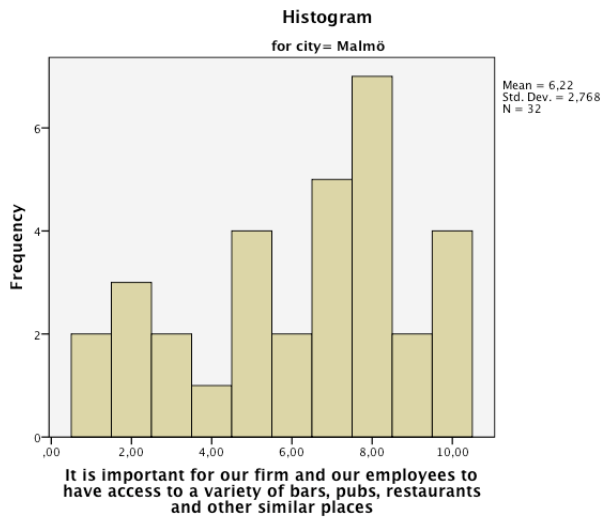


Normal Q-Q Plot of As a firm, we work closely with interns that are enrolled to a local educational institution

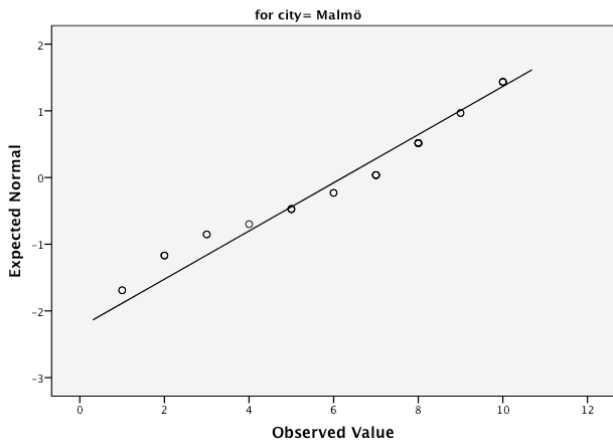


Normal Q-Q Plot of As a firm, we work closely with interns that are enrolled to a local educational institution

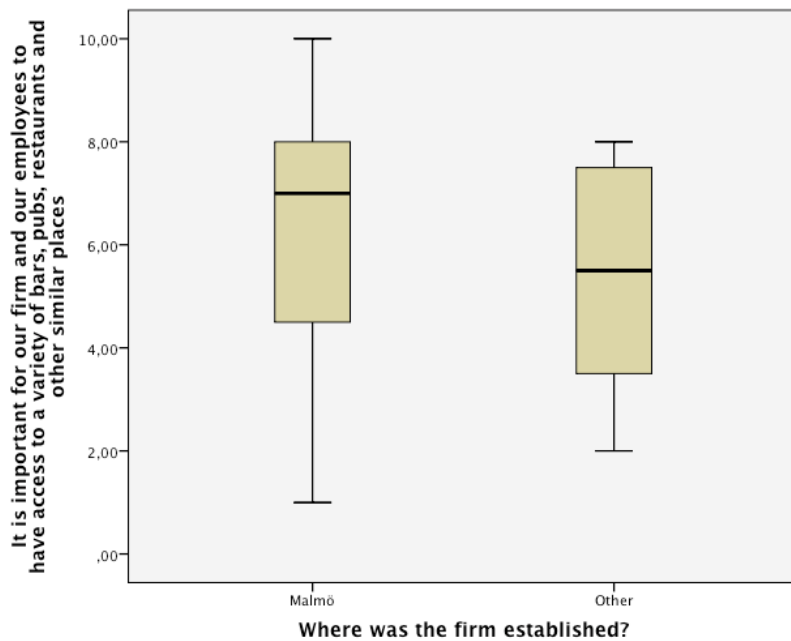
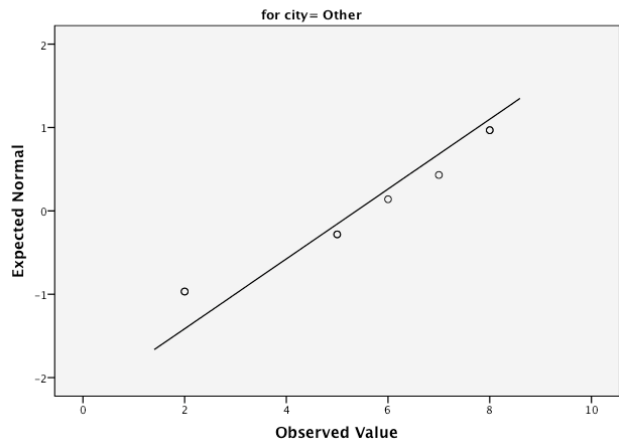


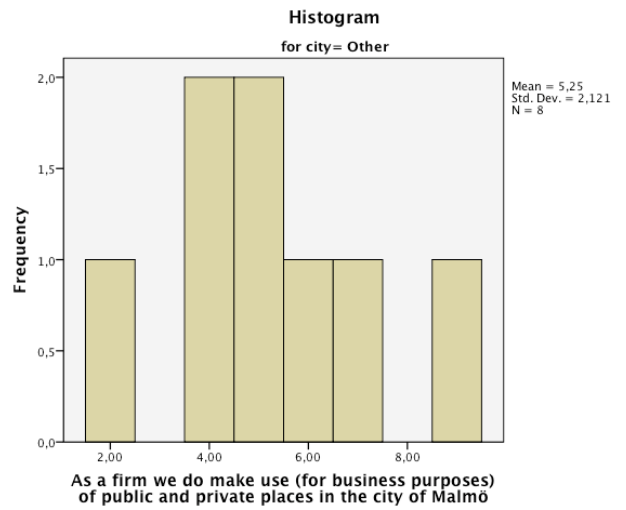
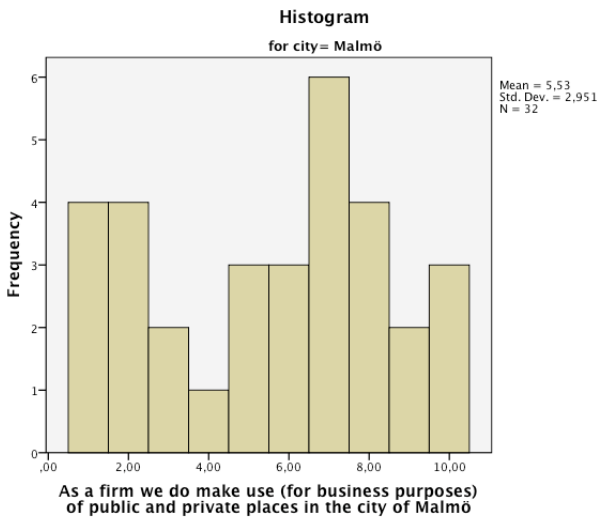


Normal Q-Q Plot of It is important for our firm and our employees to have access to a variety of bars, pubs, restaurants and other similar places

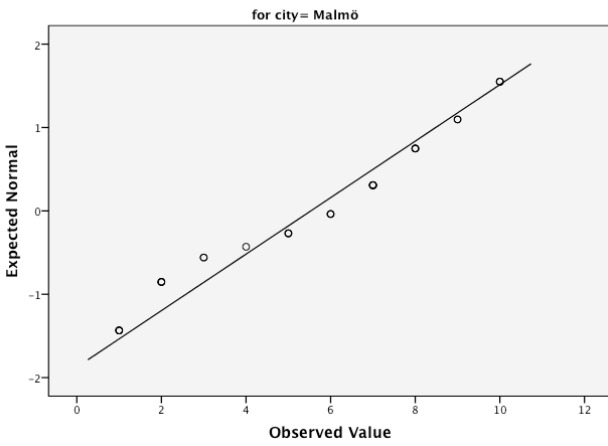


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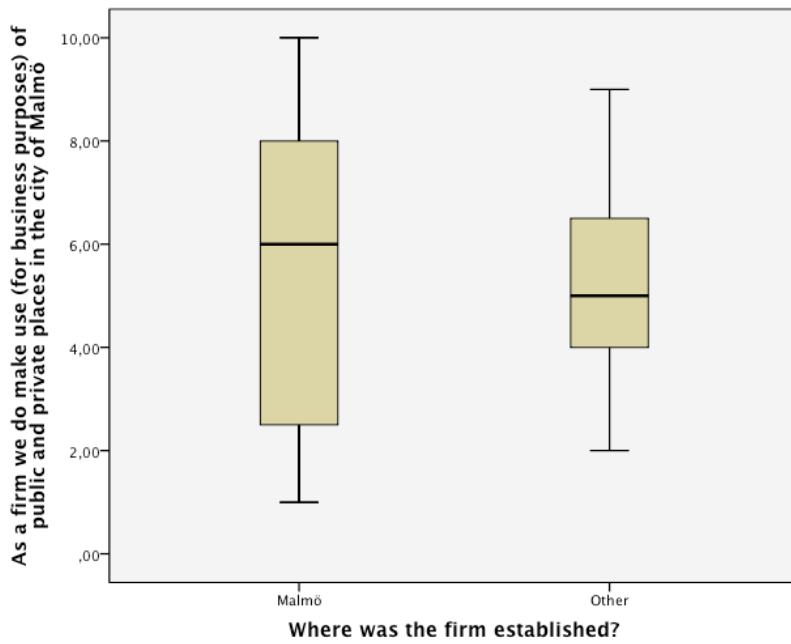
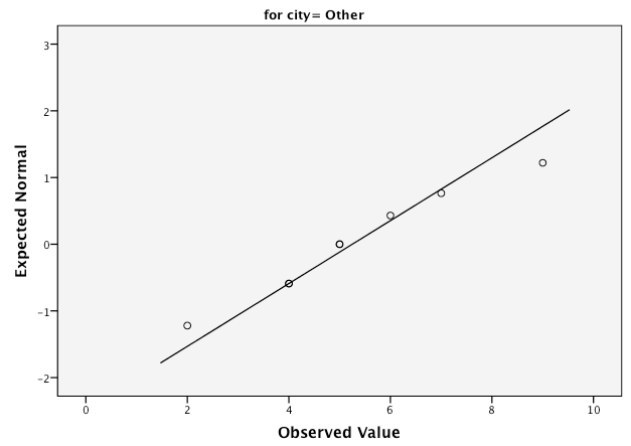


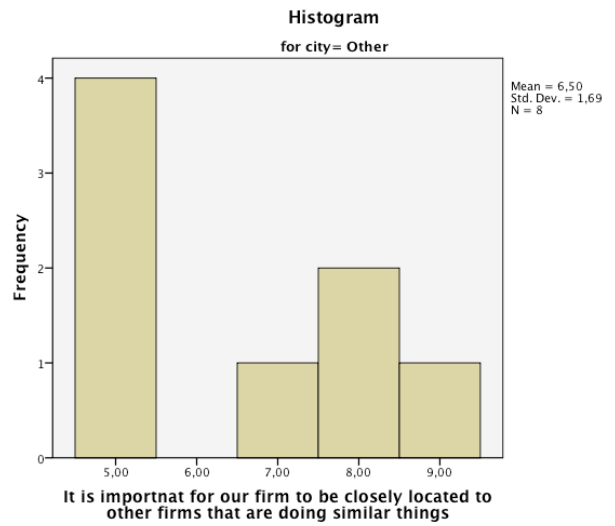
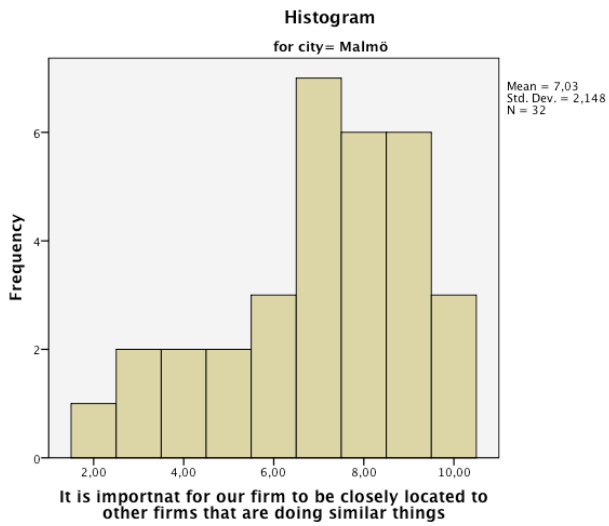


Normal Q-Q Plot of As a firm we do make use (for business purposes) of public and private places in the city of Malmö

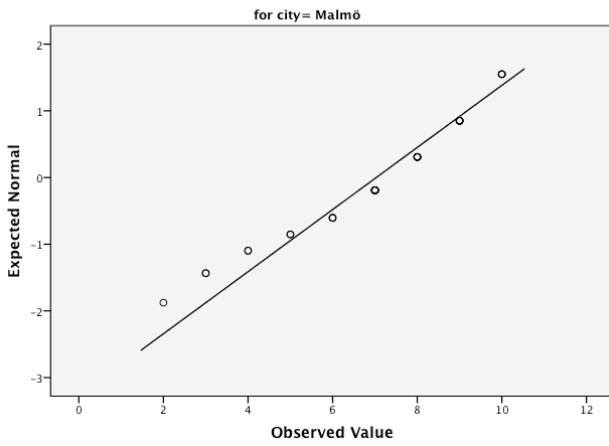


Normal Q-Q Plot of As a firm we do make use (for business purposes) of public and private places in the city of Malmö

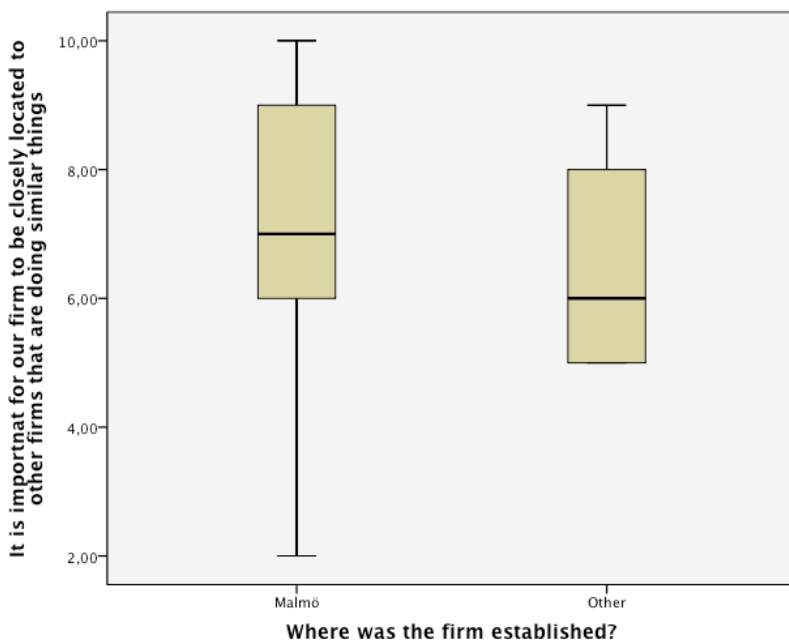
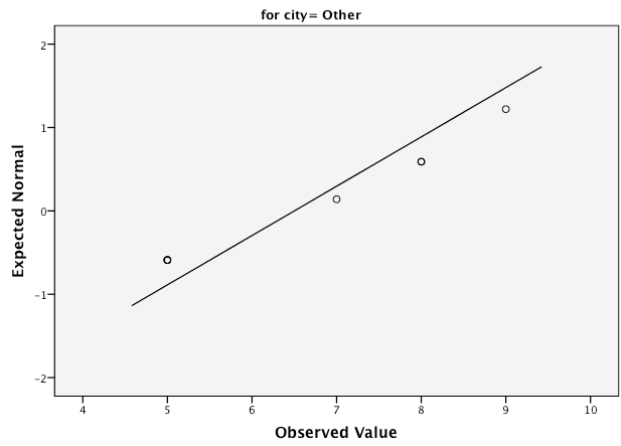


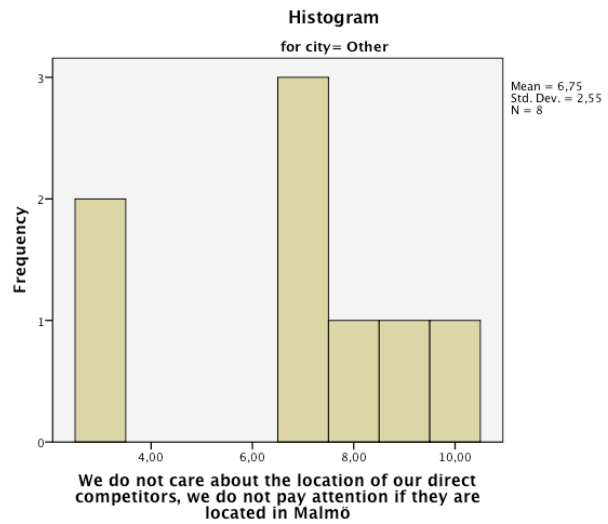
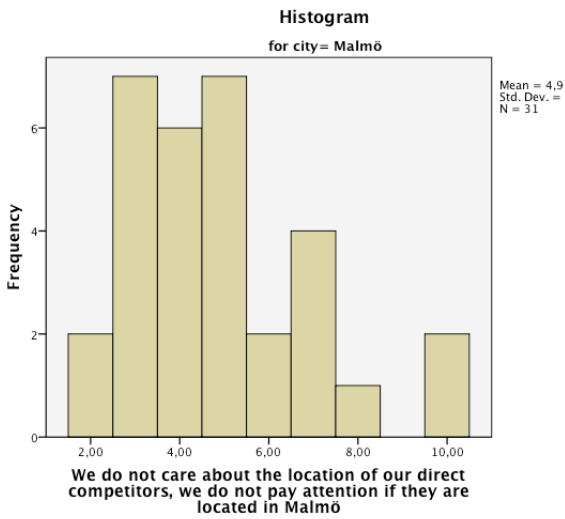


Normal Q-Q Plot of It is important for our firm to be closely located to other firms that are doing similar things

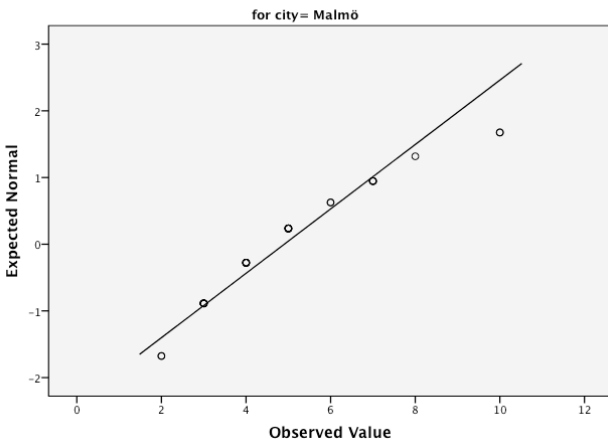


Normal Q-Q Plot of It is important for our firm to be closely located to other firms that are doing similar things

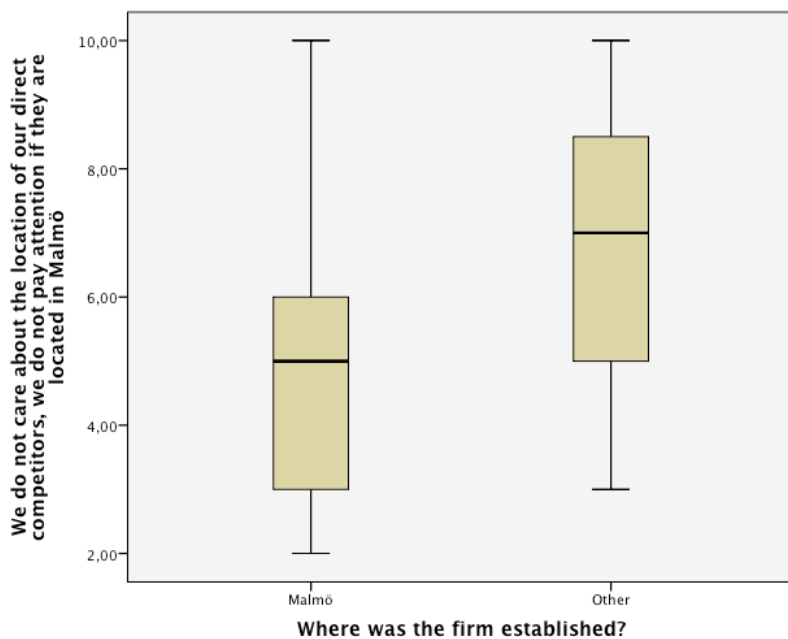
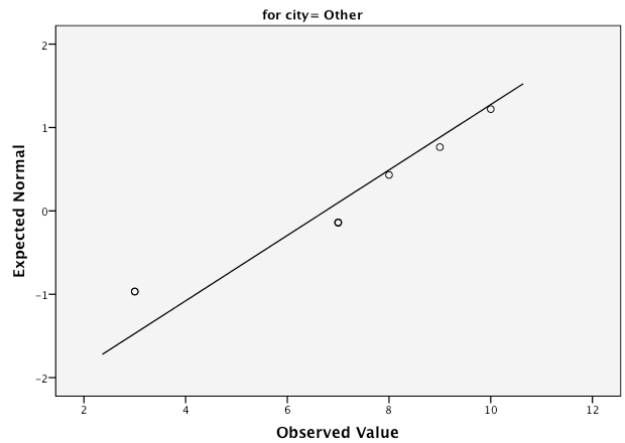


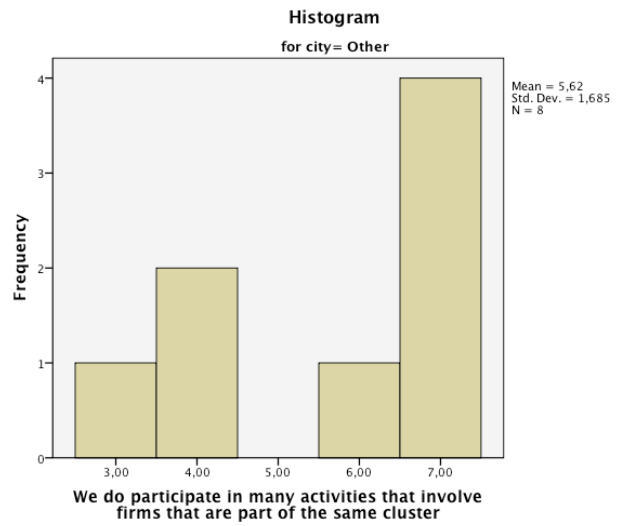
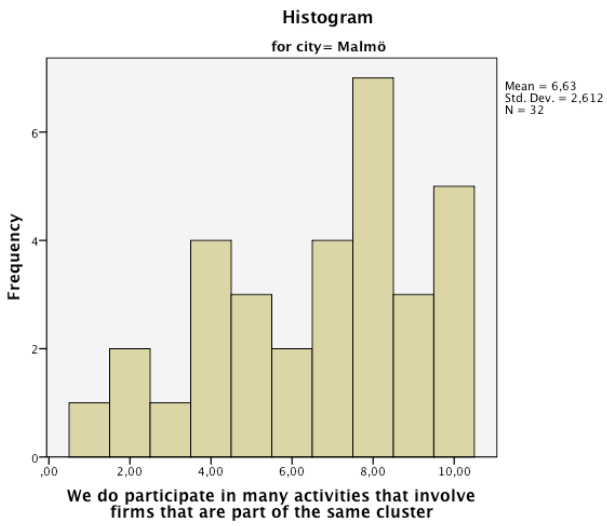


Normal Q-Q Plot of We do not care about the location of our direct competitors, we do not pay attention if they are located in Malmö

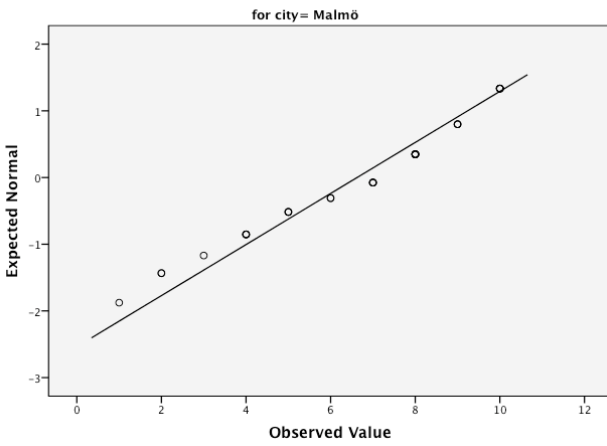


Normal Q-Q Plot of We do not care about the location of our direct competitors, we do not pay attention if they are located in Malmö

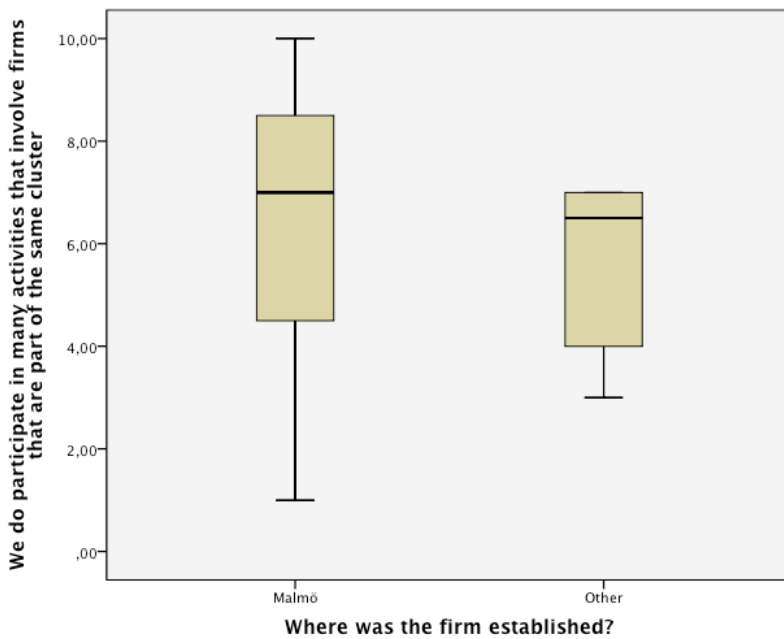
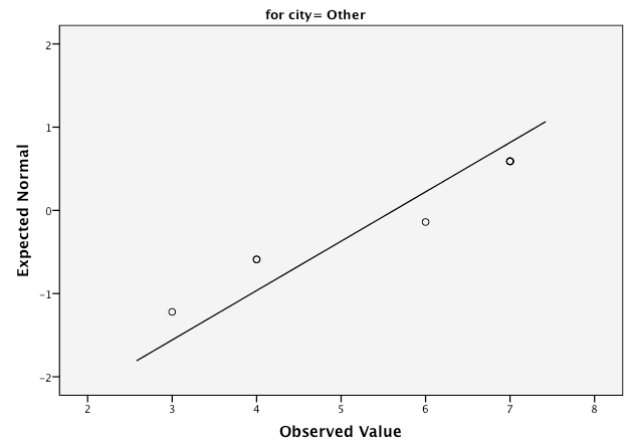


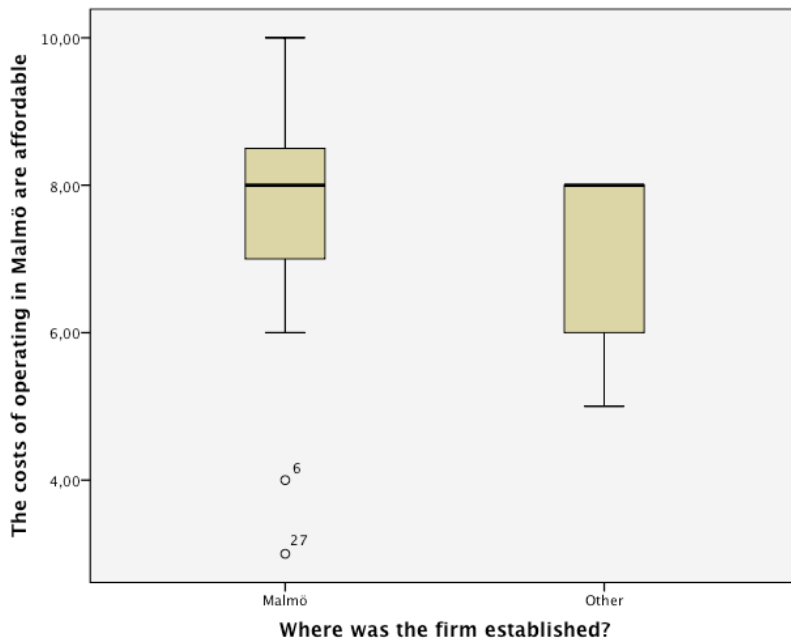
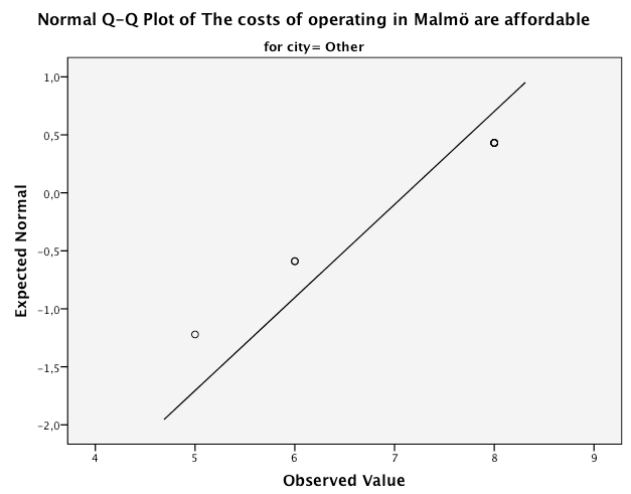
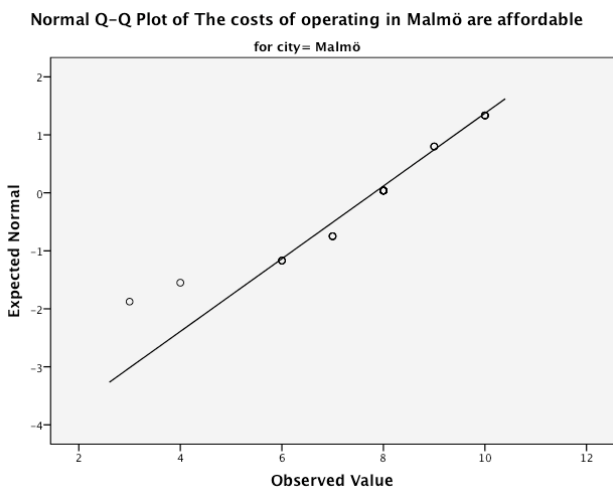
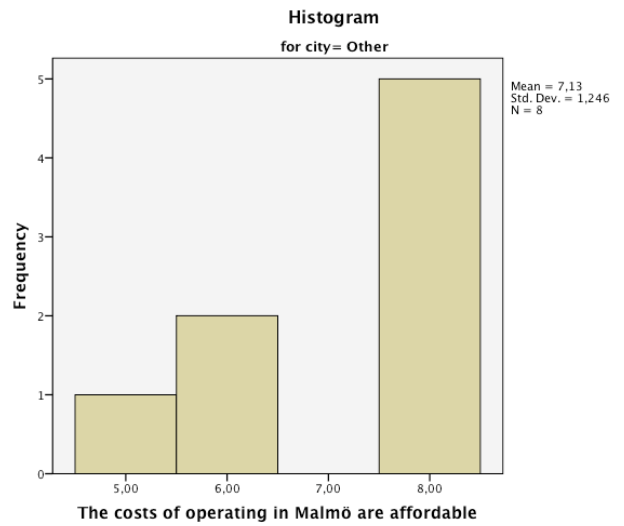
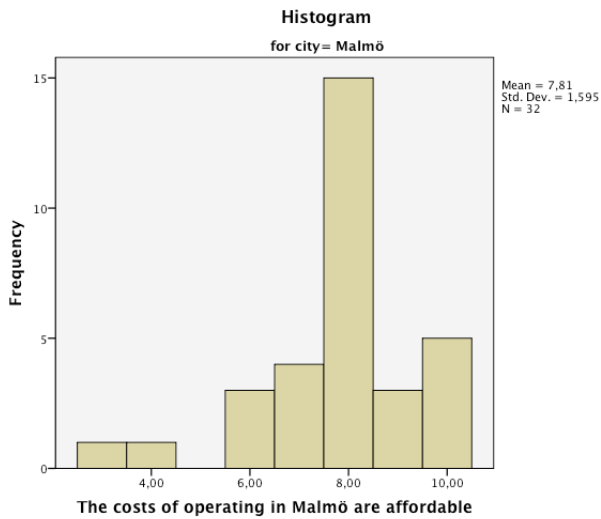


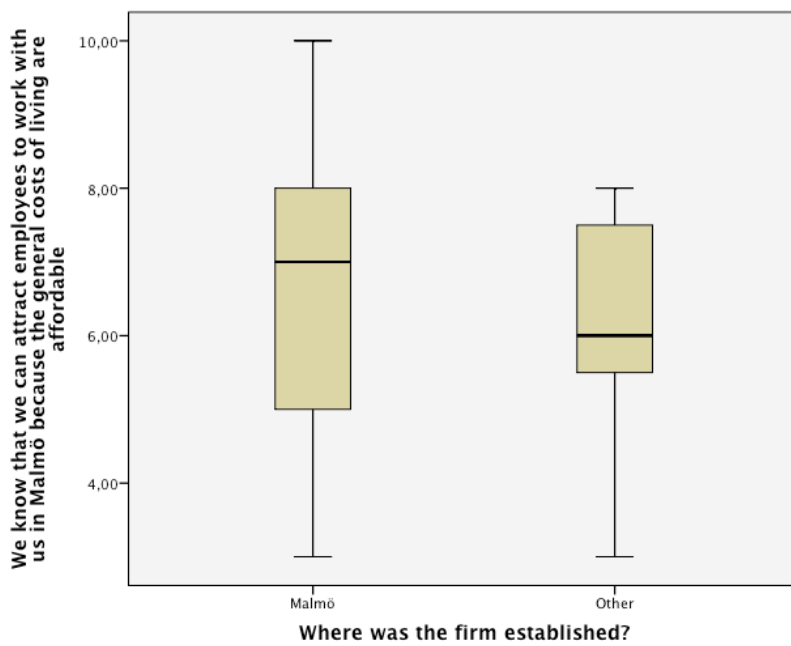
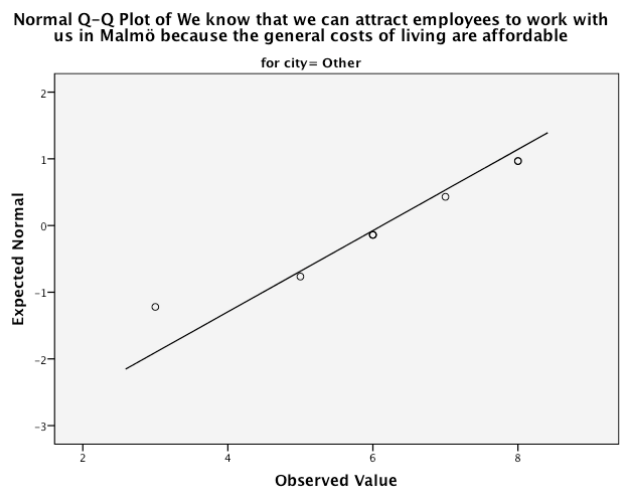
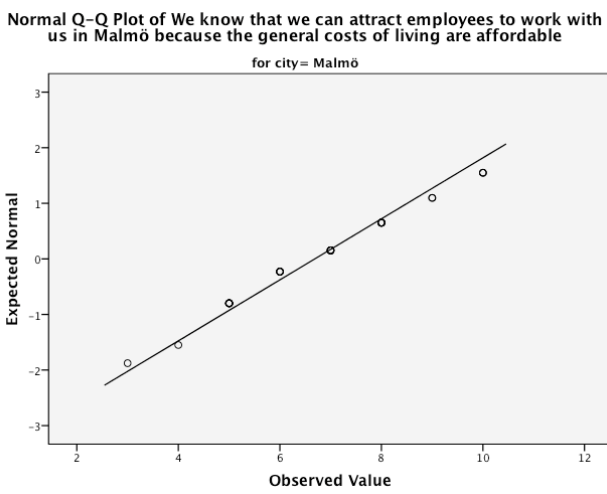
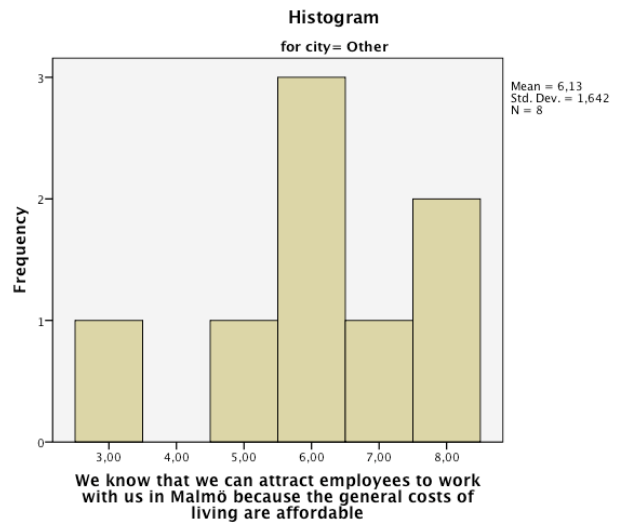
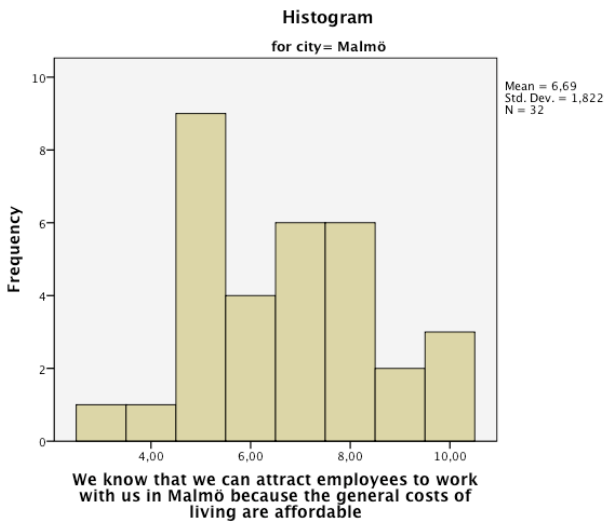
Normal Q-Q Plot of We do participate in many activities that involve firms that are part of the same cluster

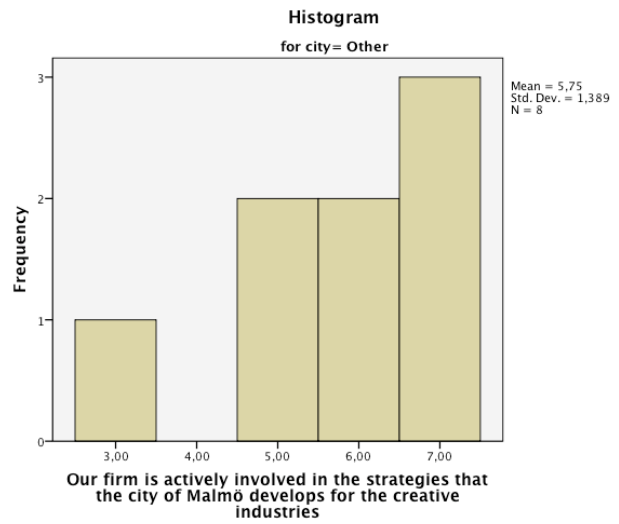
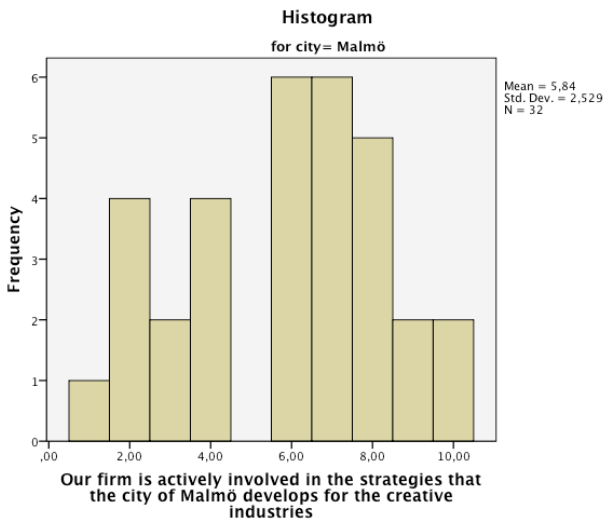


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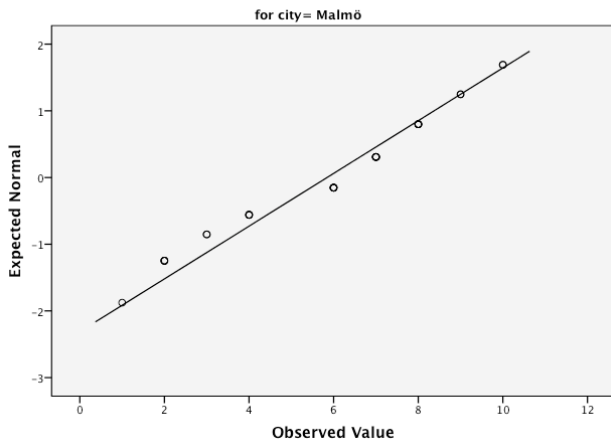




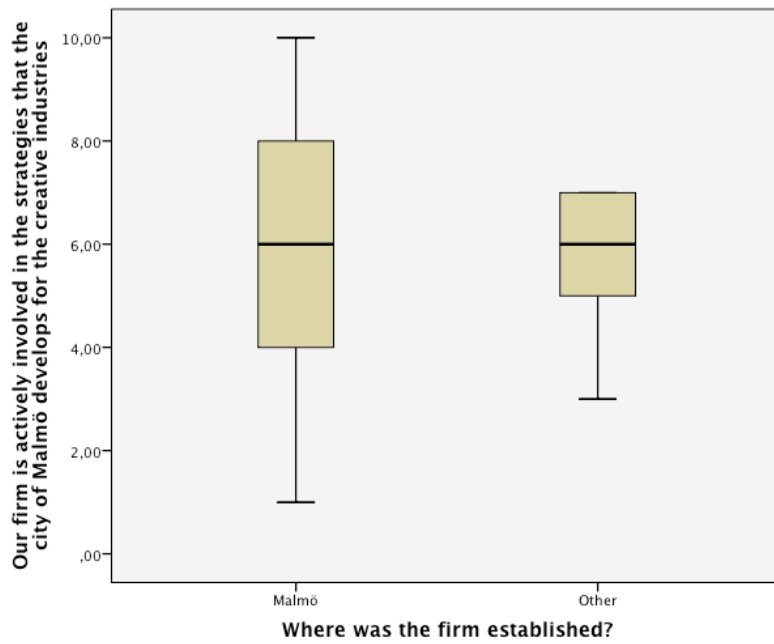
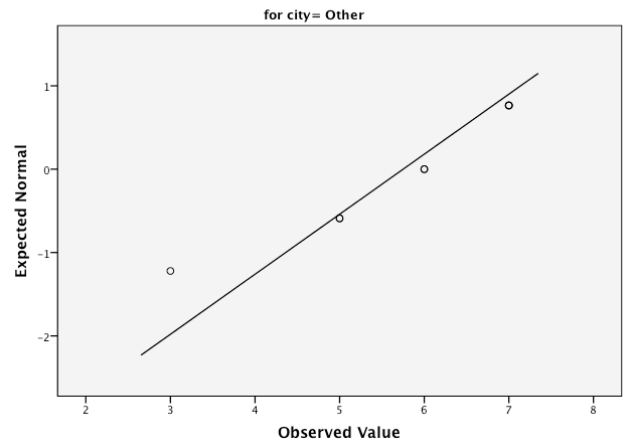


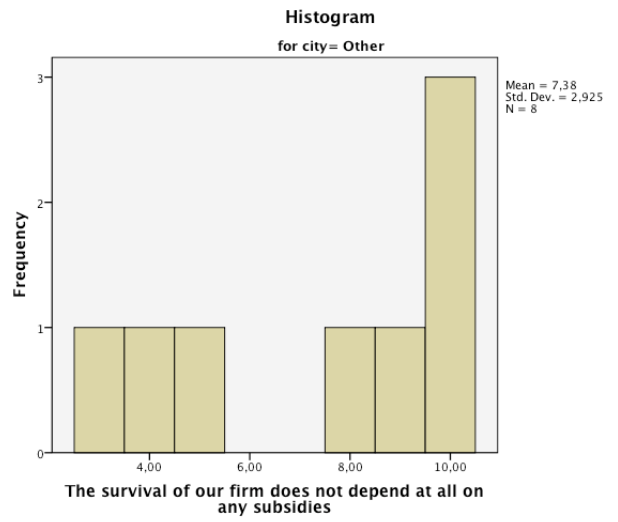
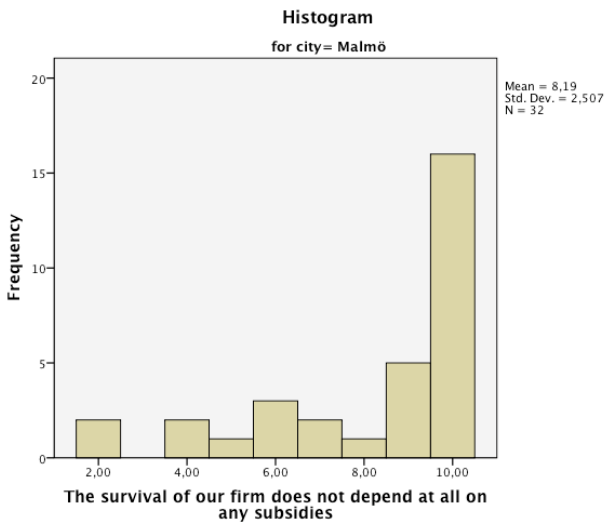


Normal Q-Q Plot of Our firm is actively involved in the strategies that the city of Malmö develops for the creative industries

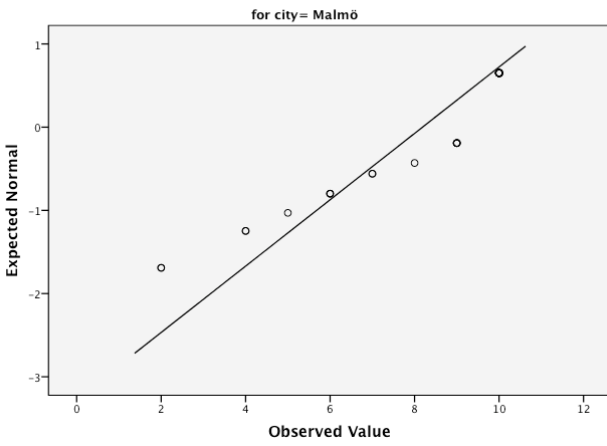


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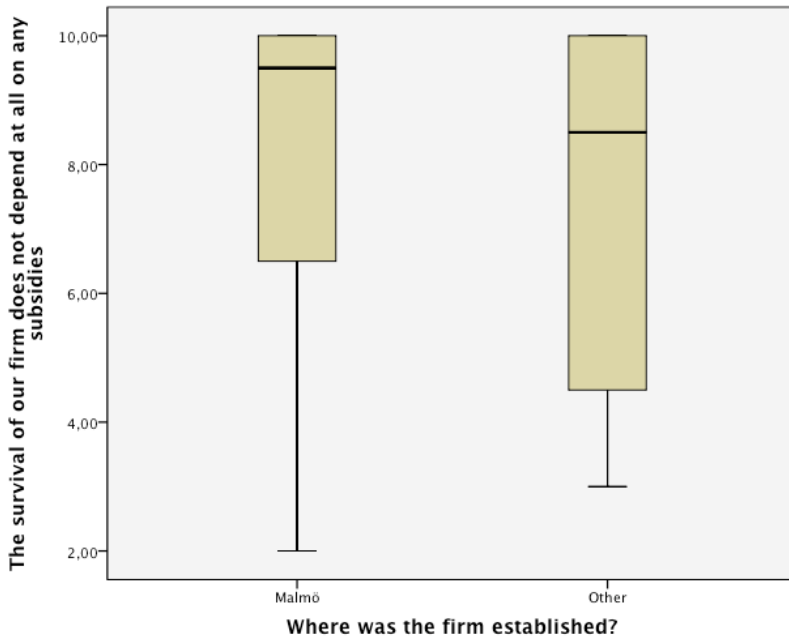
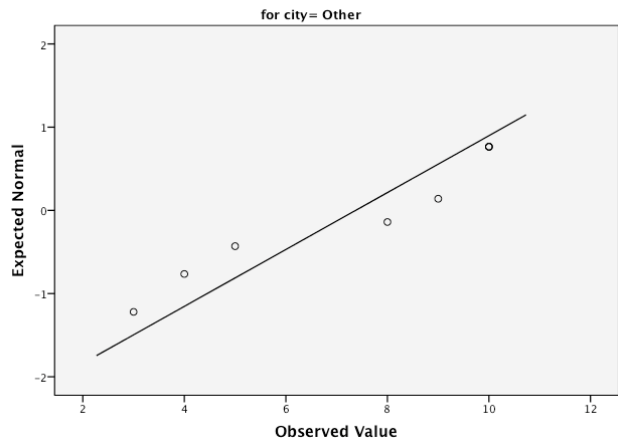




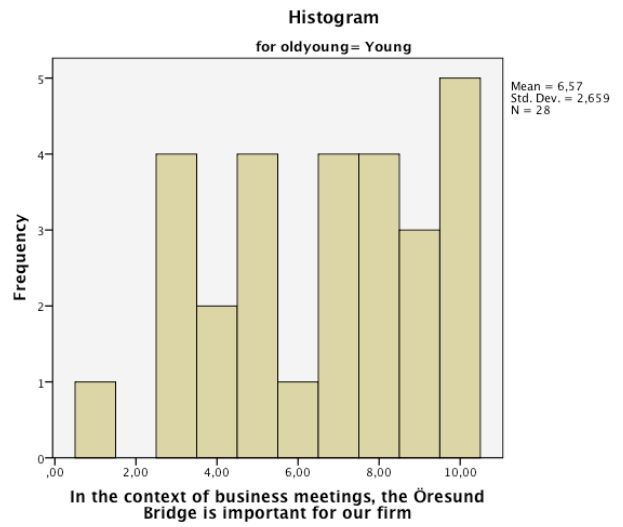
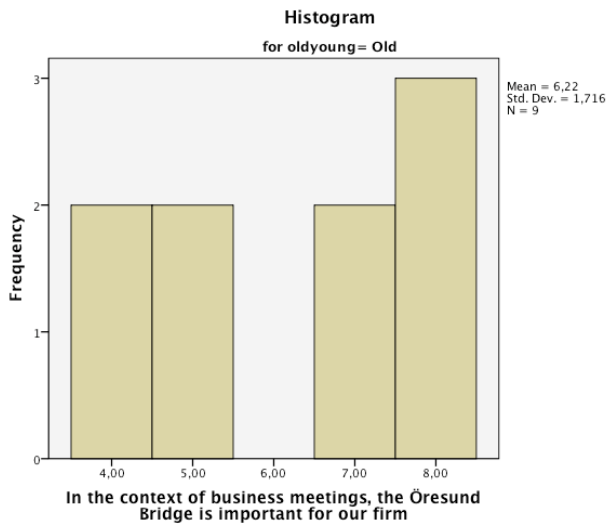
Normal Q-Q Plot of The survival of our firm does not depend at all on any subsidies



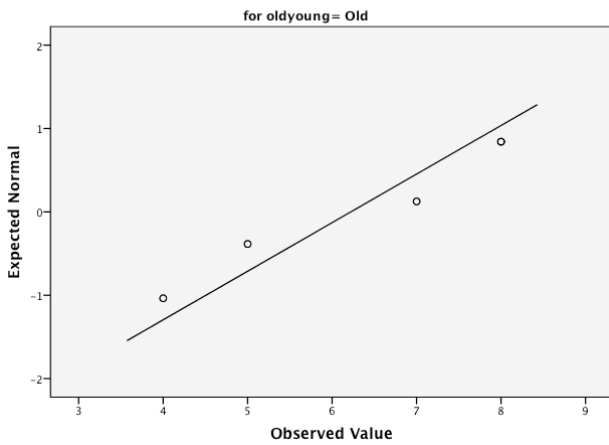
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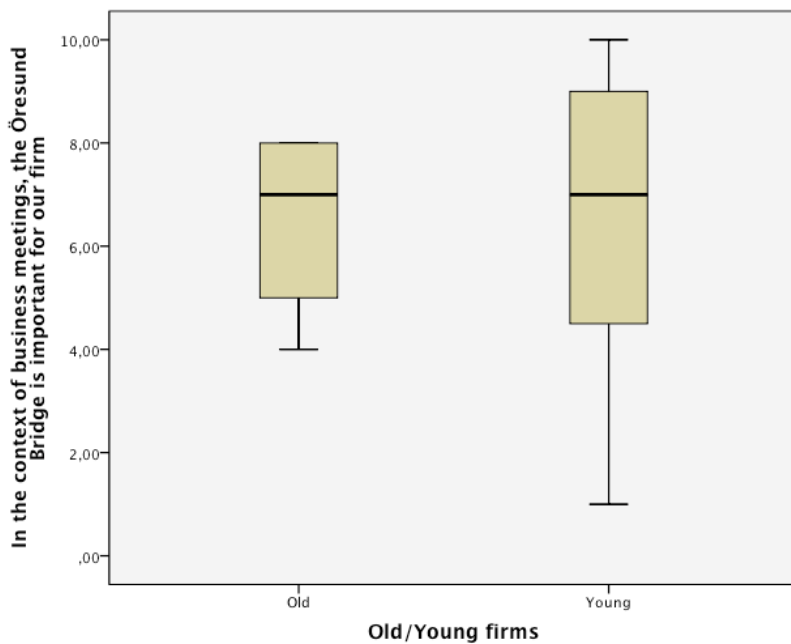
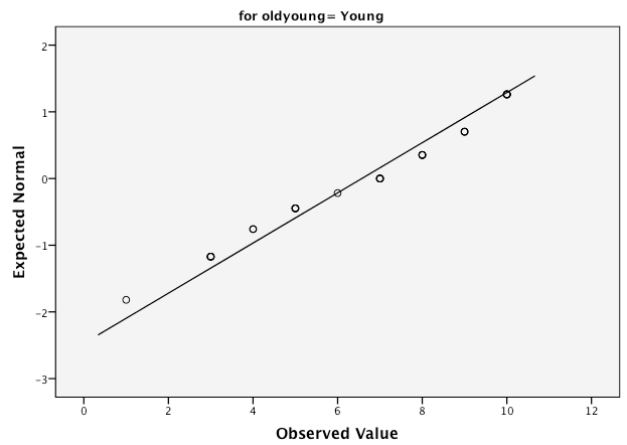
Appendix IV – Test for normality (Young and old firms)

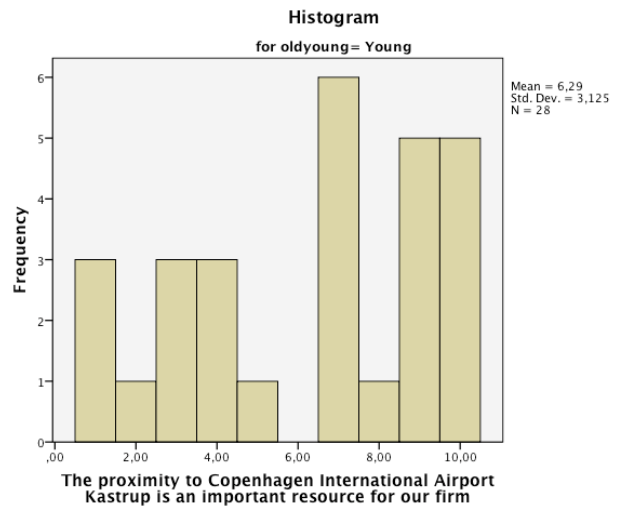
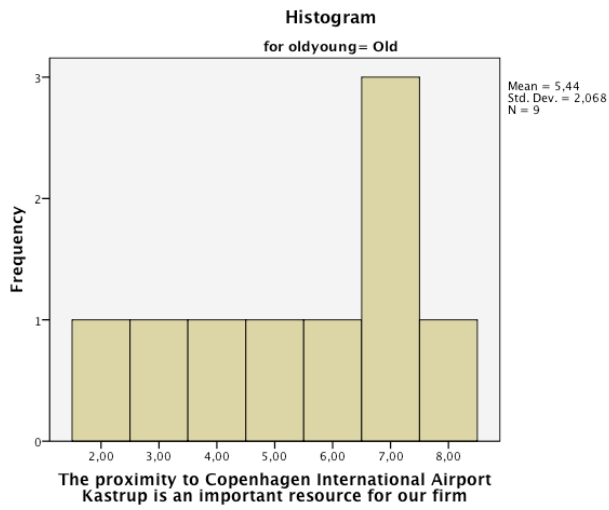


Normal Q-Q Plot of In the context of business meetings, the Öresund Bridge is important for our firm

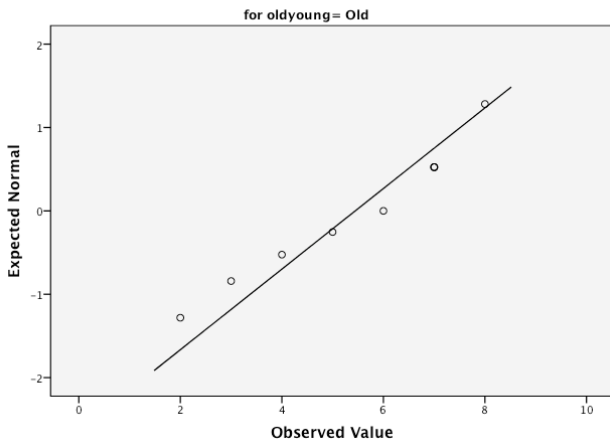


Normal Q-Q Plot of In the context of business meetings, the Öresund Bridge is important for our firm

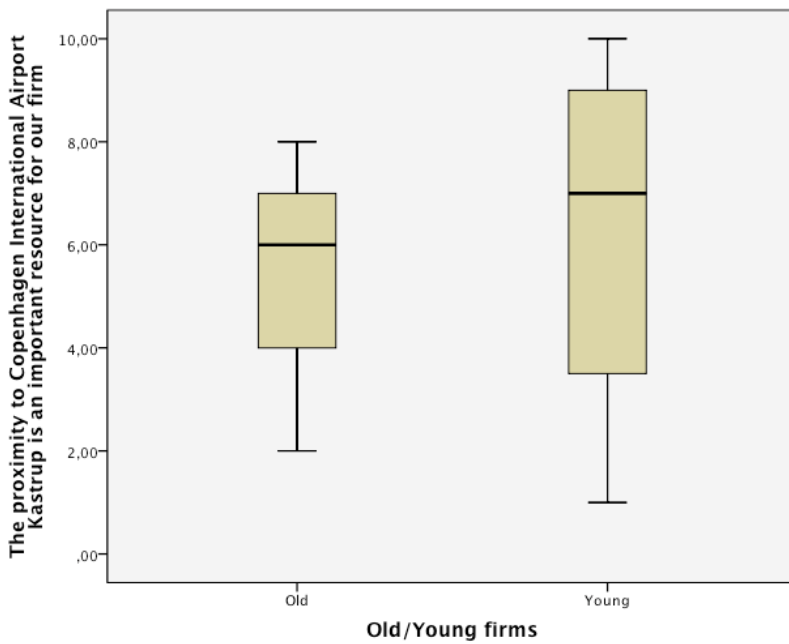
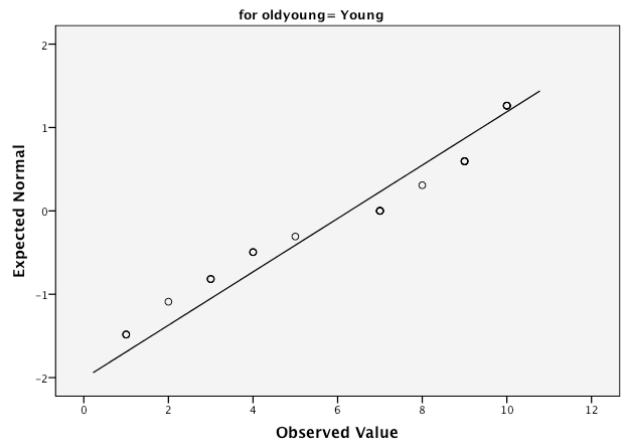


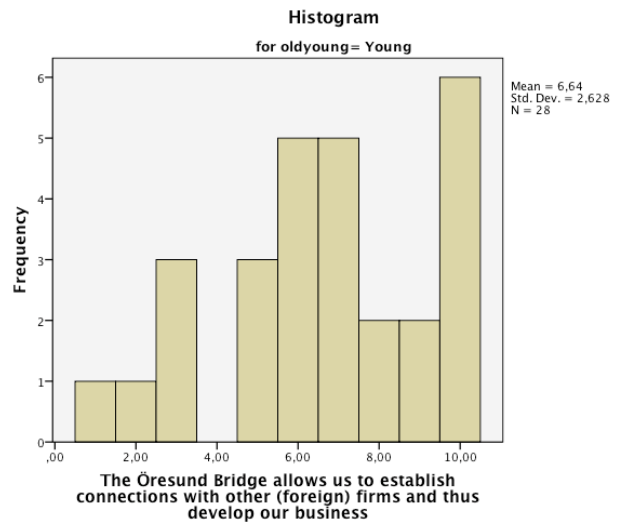
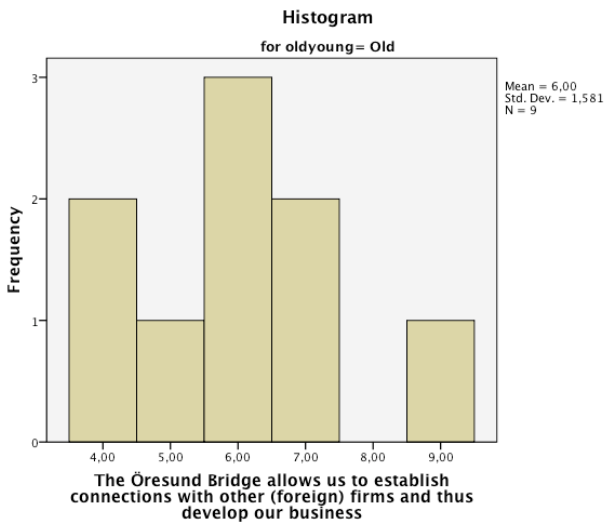


Normal Q-Q Plot of The proximity to Copenhagen International Airport Kastrup is an important resource for our firm

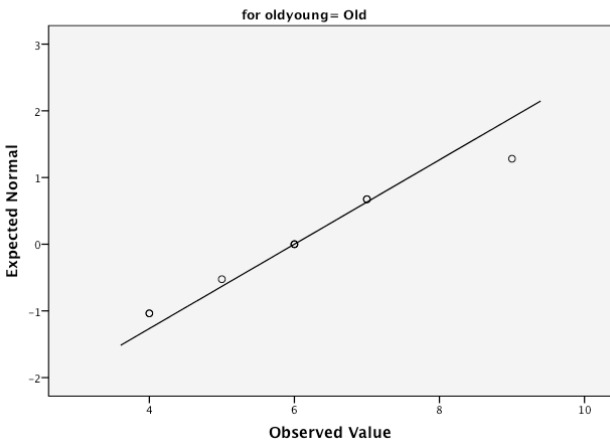


Normal Q-Q Plot of The proximity to Copenhagen International Airport Kastrup is an important resource for our firm

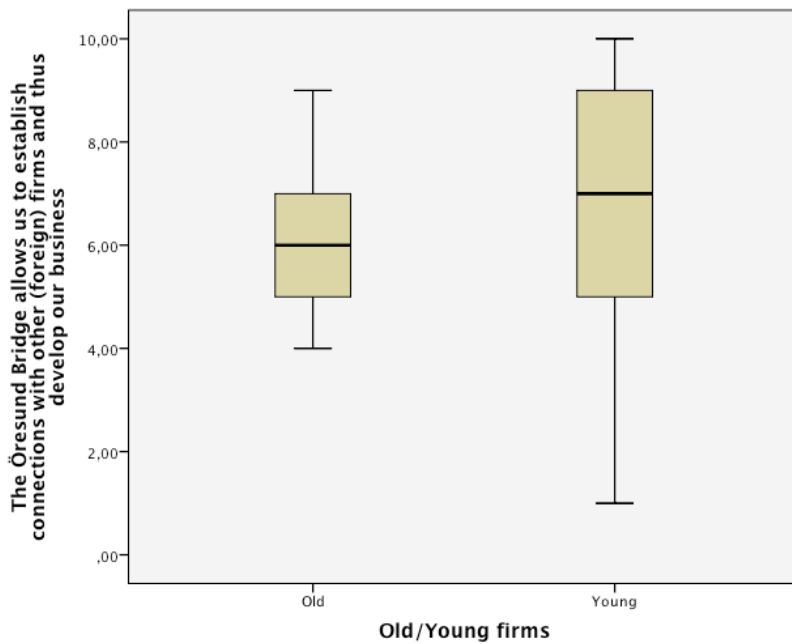
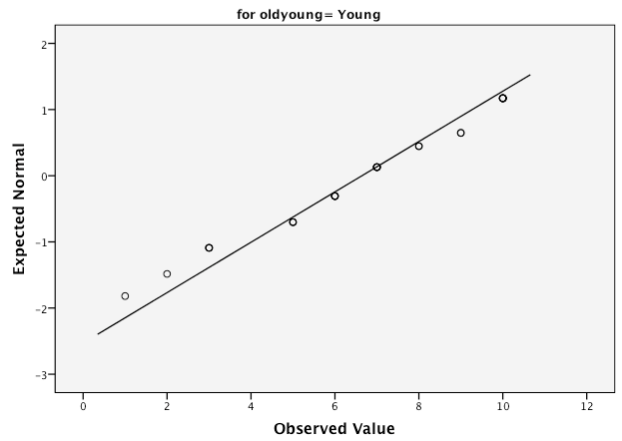


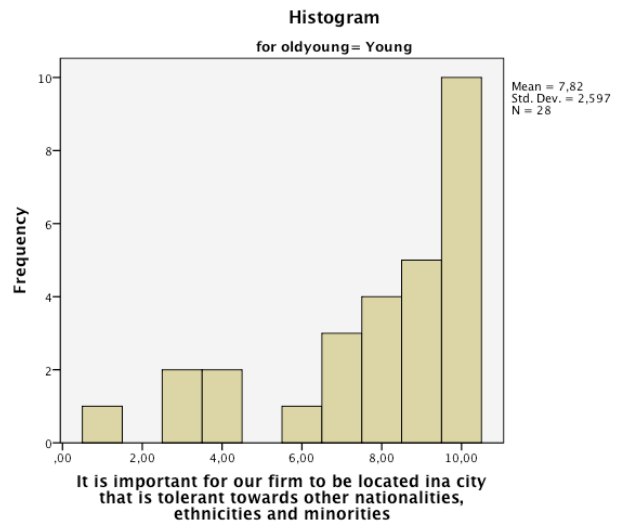


Normal Q-Q Plot of The Öresund Bridge allows us to establish connections with other (foreign) firms and thus develop our business

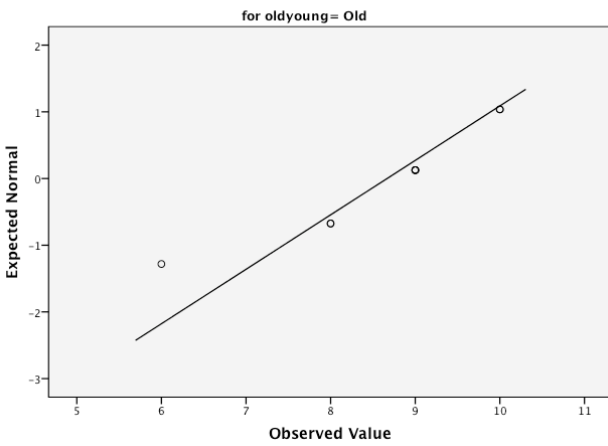


Normal Q-Q Plot of The Öresund Bridge allows us to establish connections with other (foreign) firms and thus develop our business

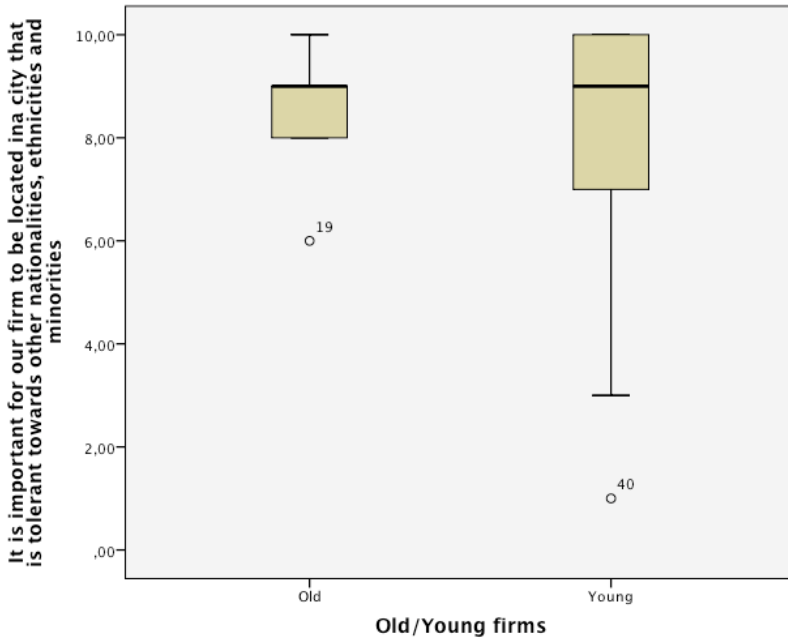
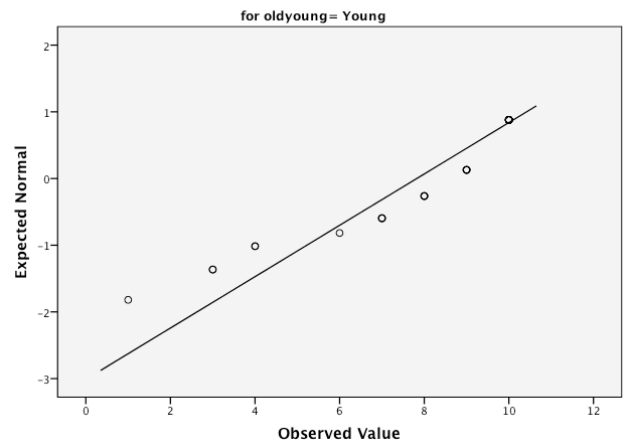


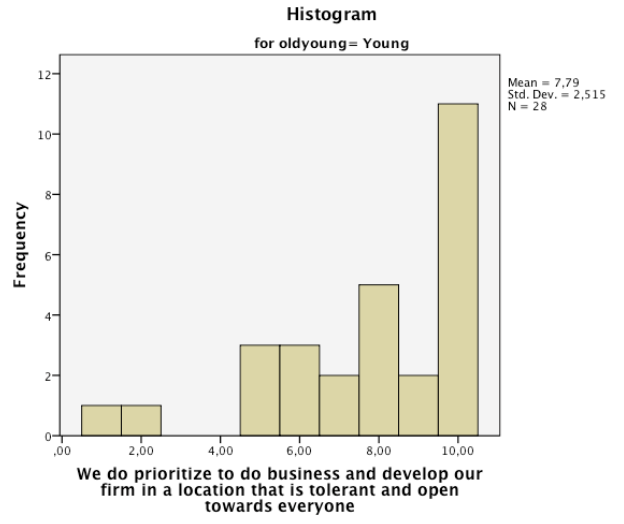
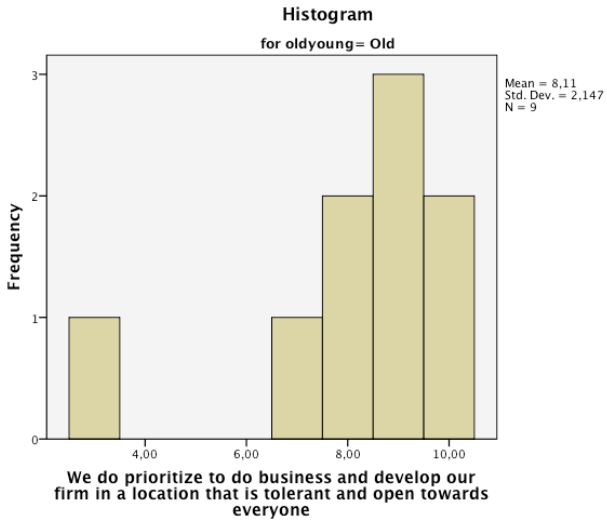


Normal Q-Q Plot of It is important for our firm to be located in a city that is tolerant towards other nationalities, ethnicities and minorities

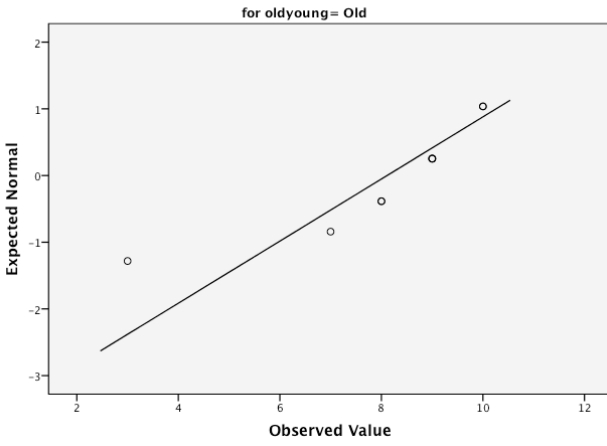


Normal Q-Q Plot of It is important for our firm to be located in a city that is tolerant towards other nationalities, ethnicities and minorities

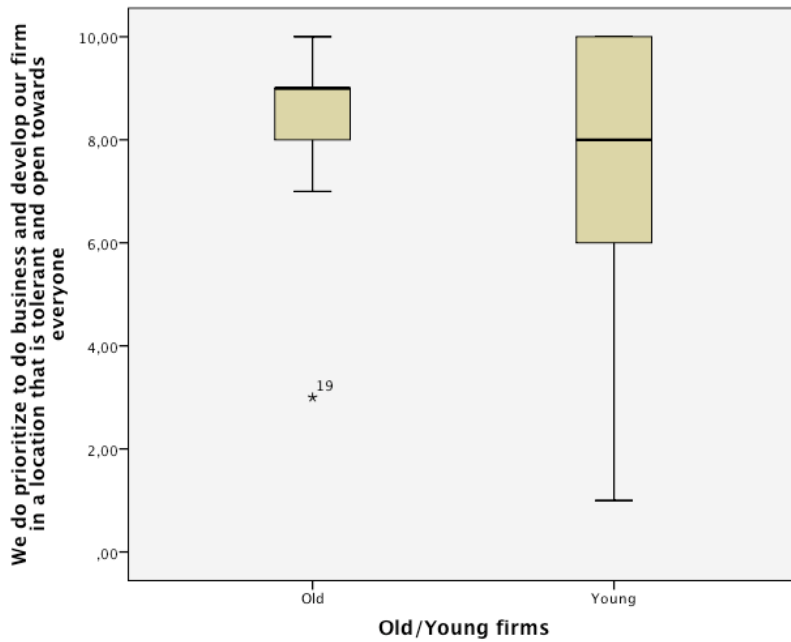
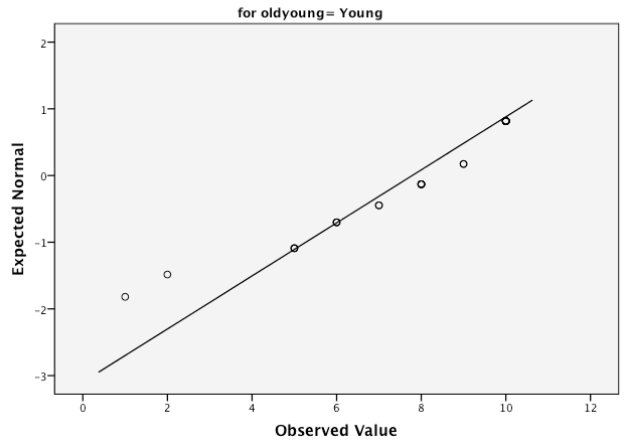


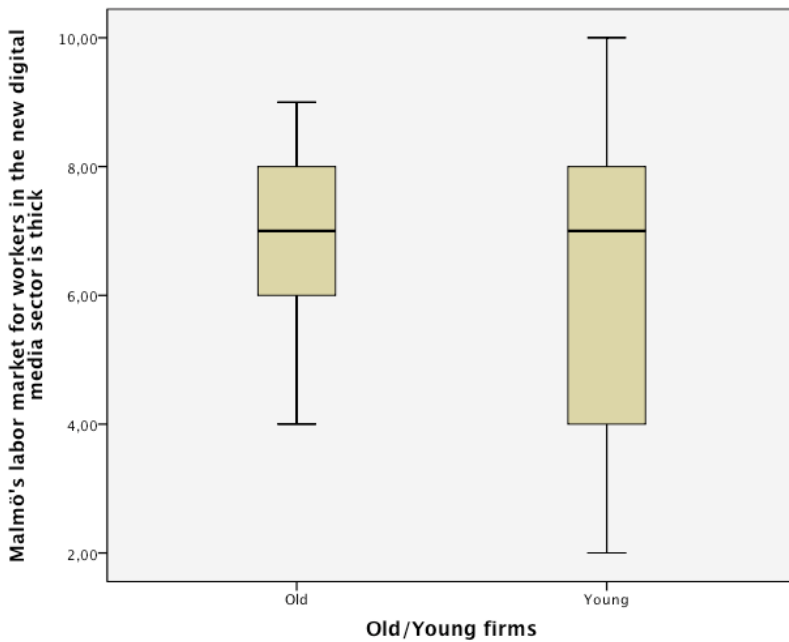
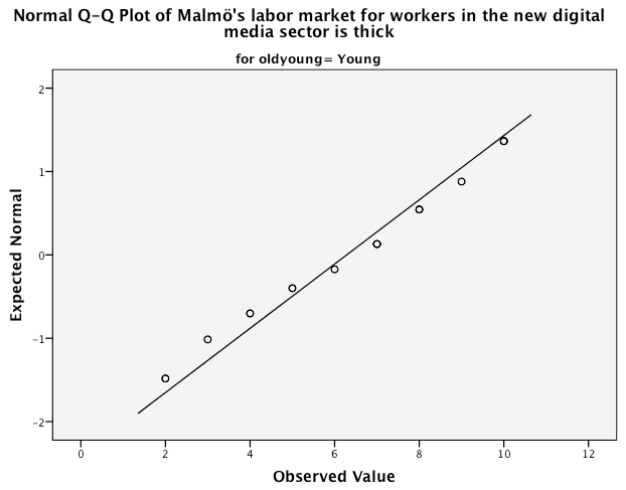
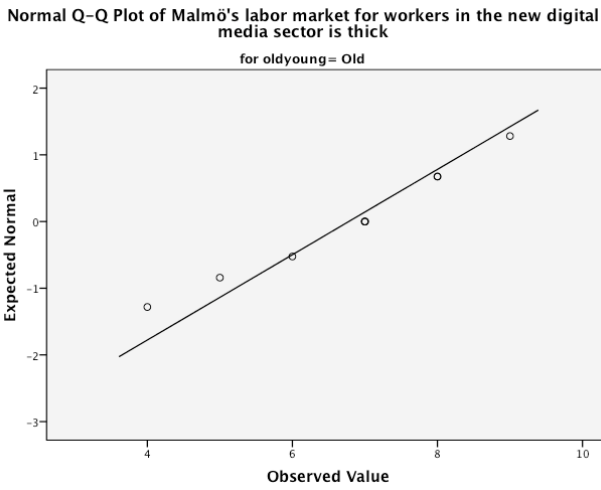
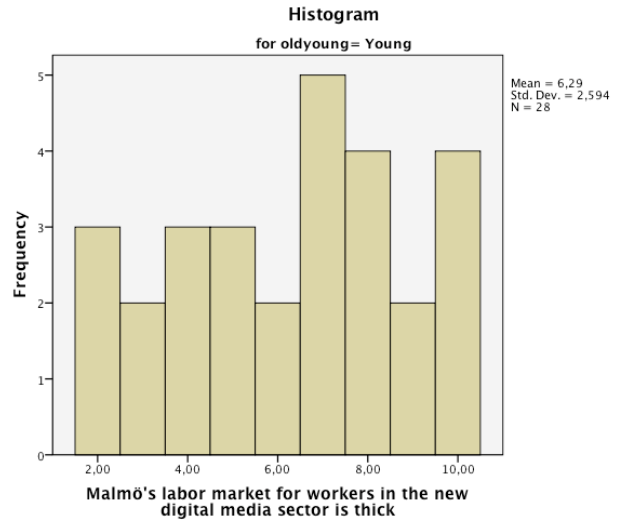
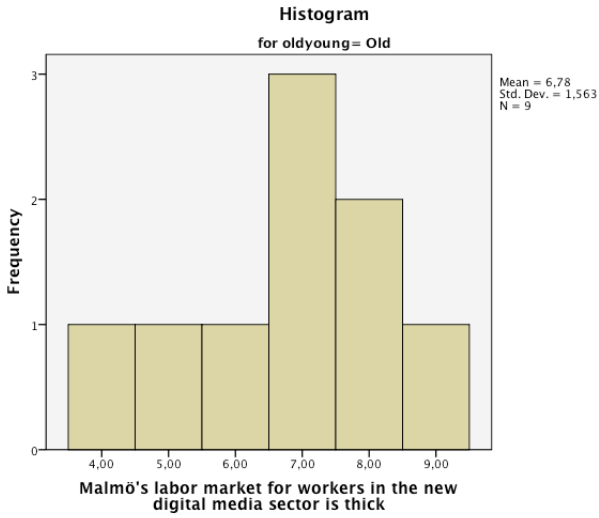


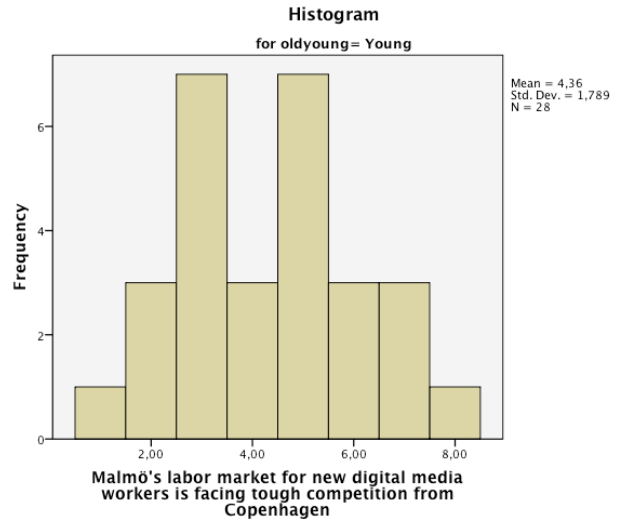
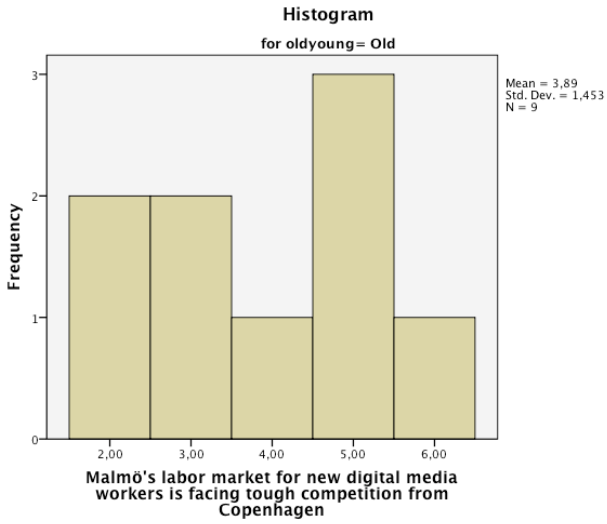
Normal Q-Q Plot of We do prioritize to do business and develop our firm in a location that is tolerant and open towards everyone



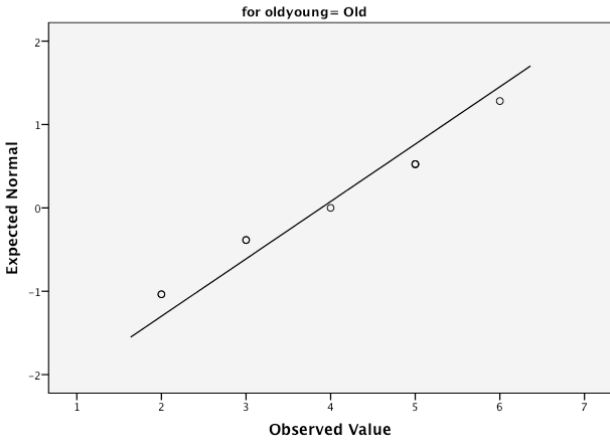
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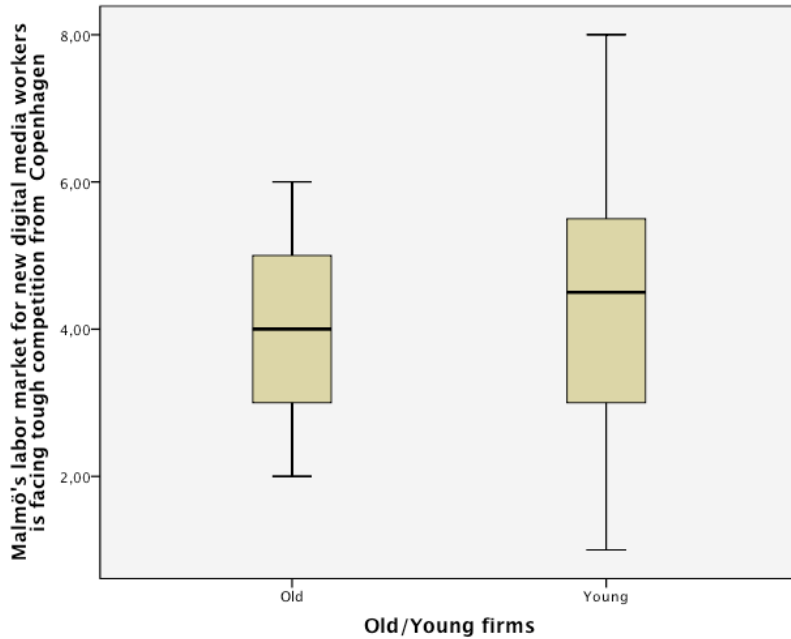
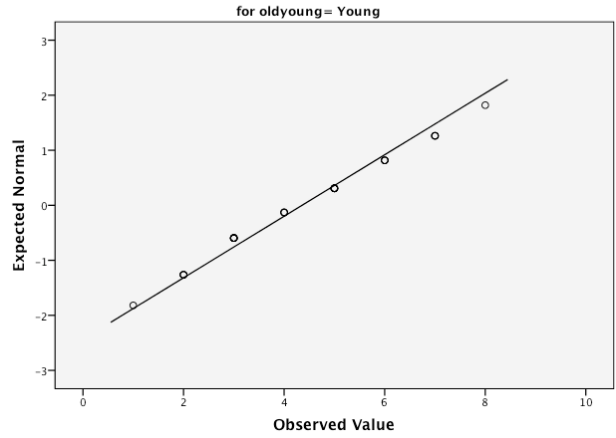


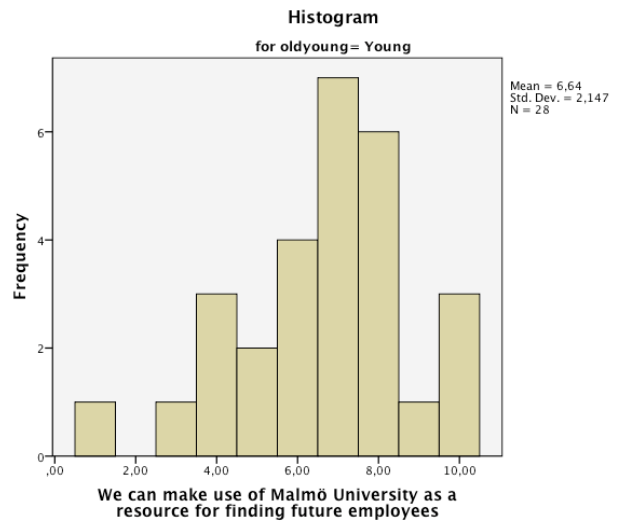
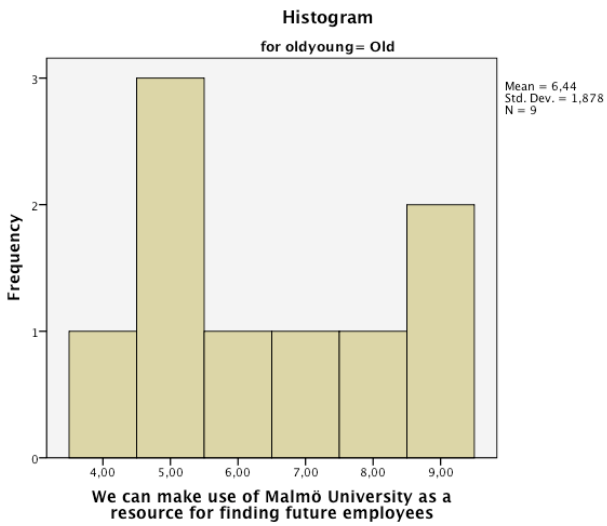


Normal Q-Q Plot of Malmö's labor market for new digital media workers is facing tough competition from Copenhagen

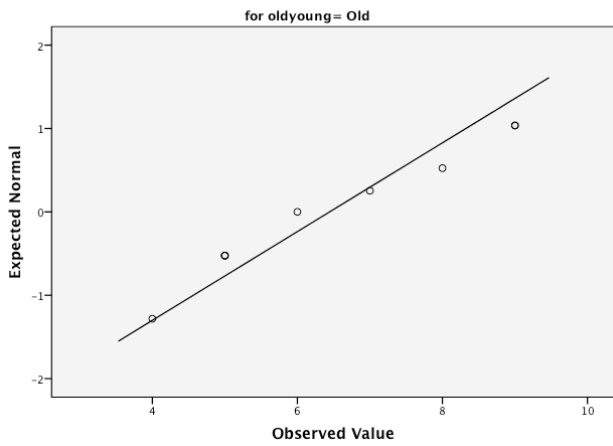


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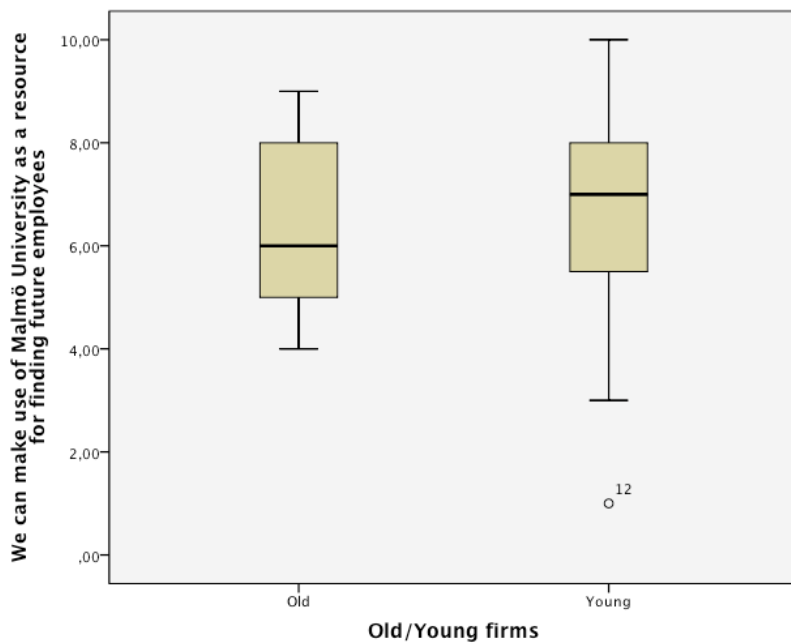
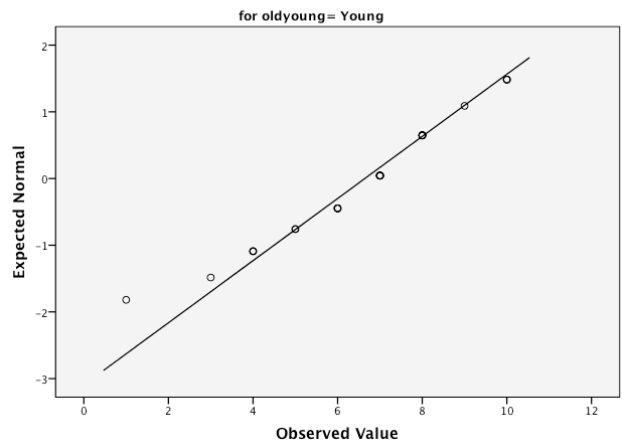


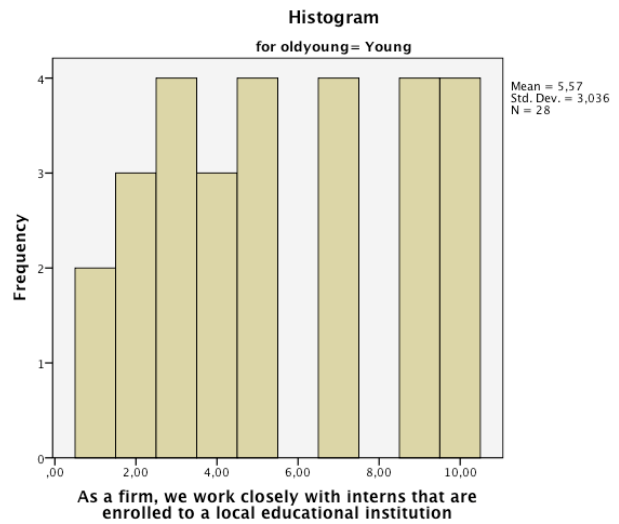
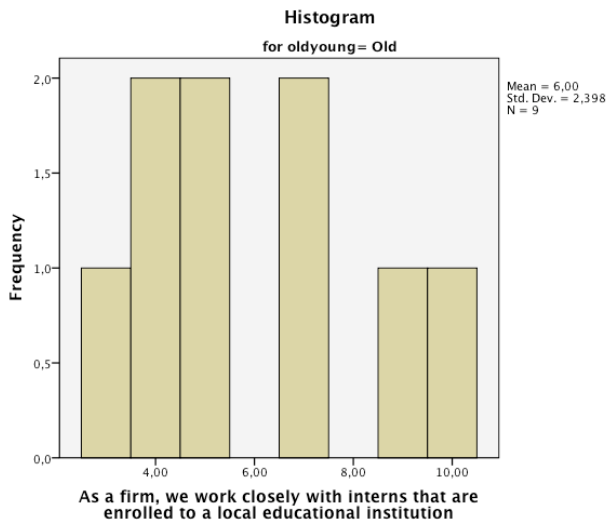


Normal Q-Q Plot of We can make use of Malmö University as a resource for finding future employees

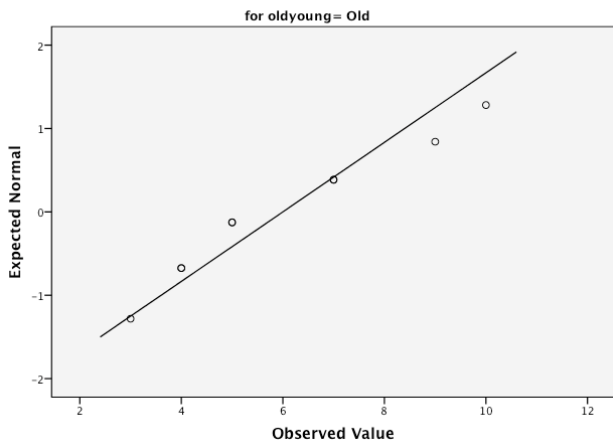


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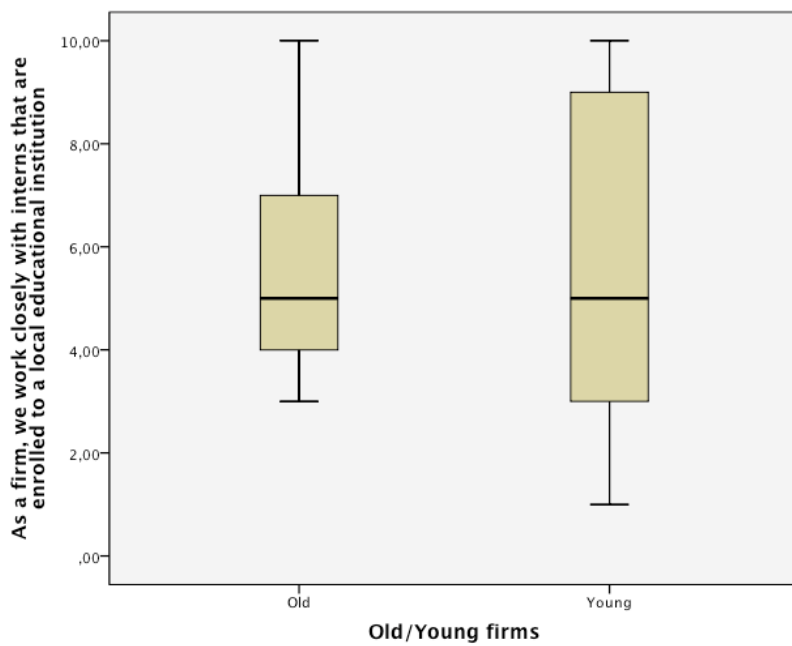
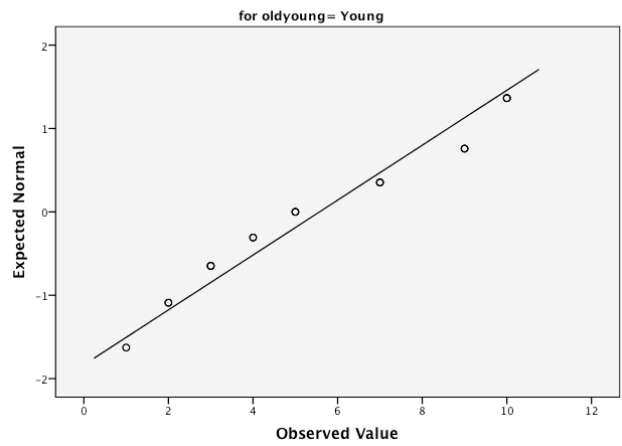


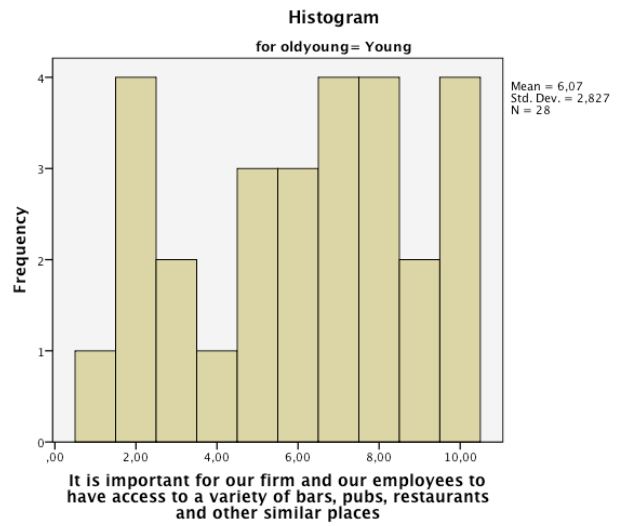
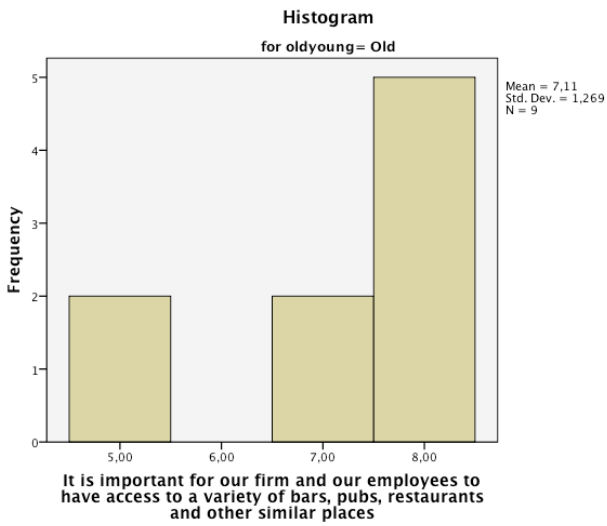


Normal Q-Q Plot of As a firm, we work closely with interns that are enrolled to a local educational institution

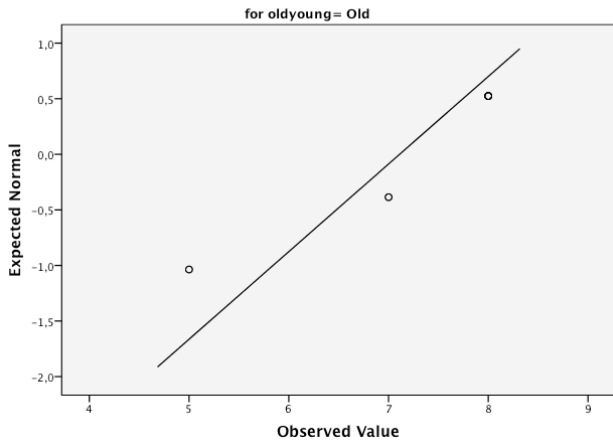


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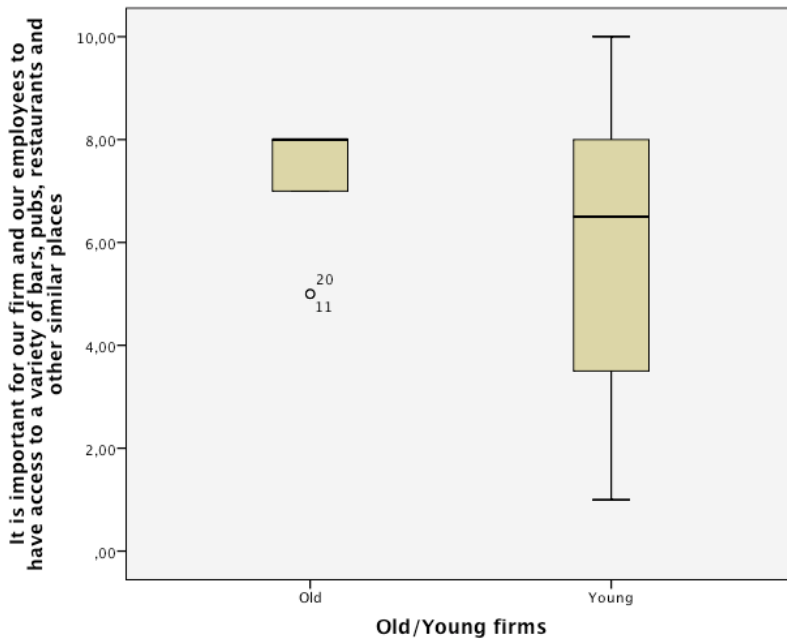
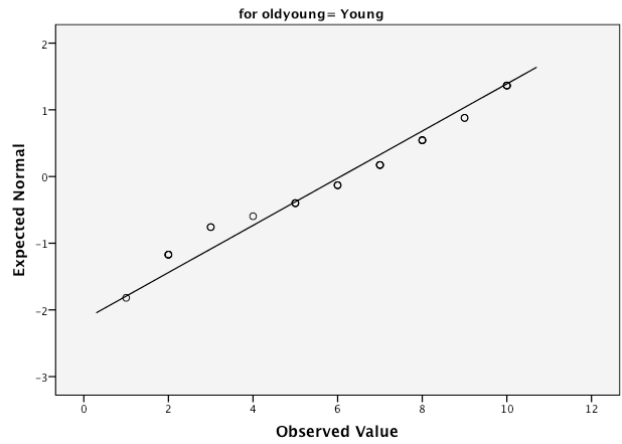


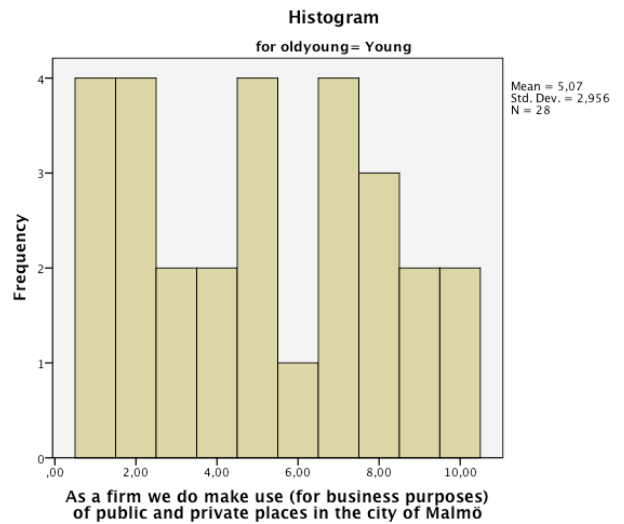
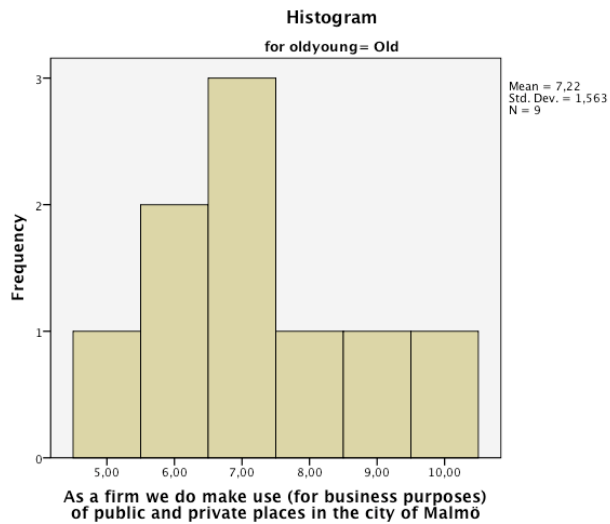


Normal Q-Q Plot of It is important for our firm and our employees to have access to a variety of bars, pubs, restaurants and other similar places

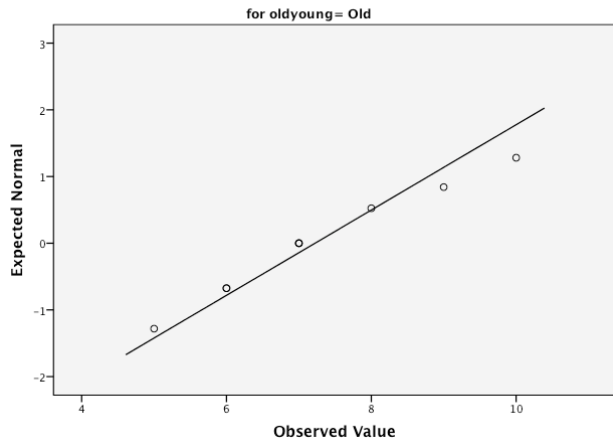


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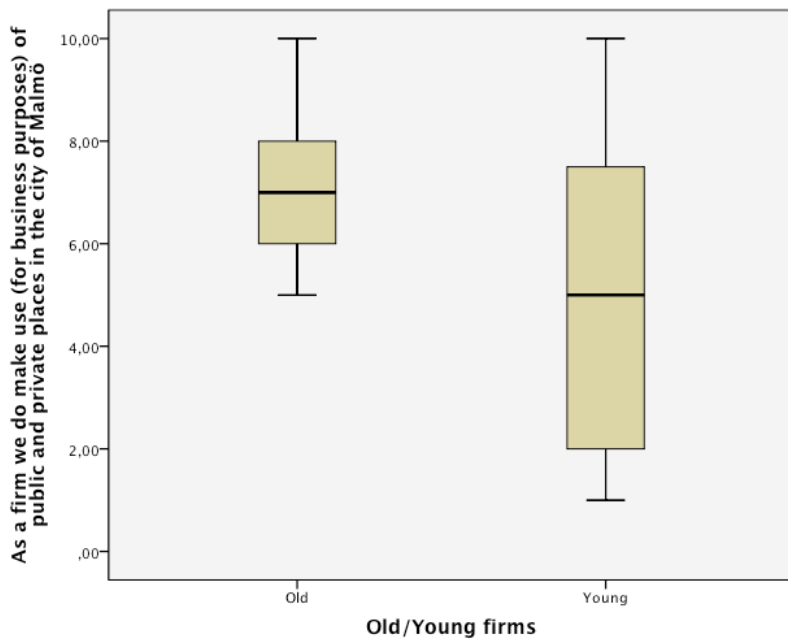
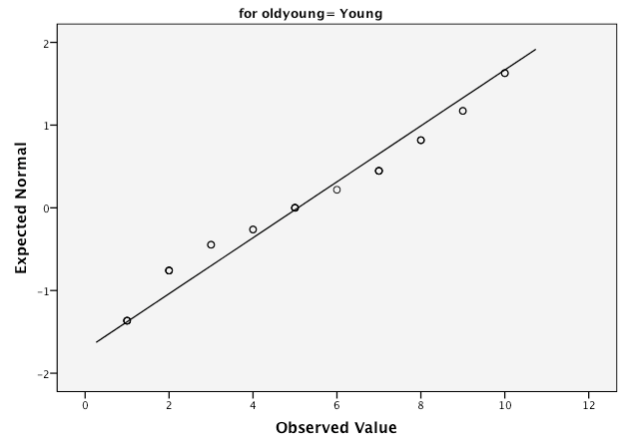


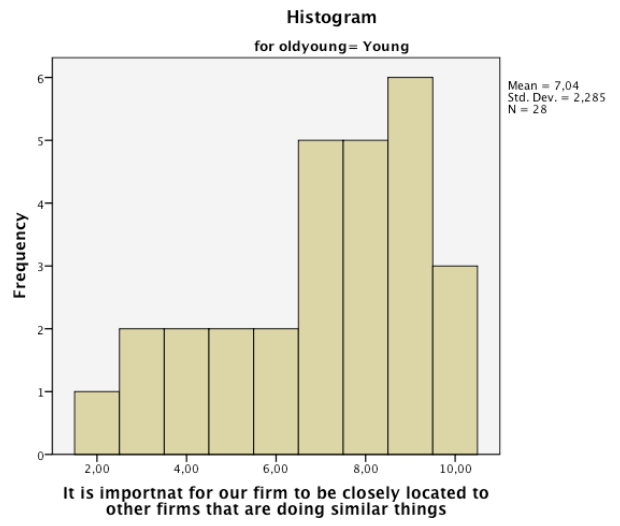
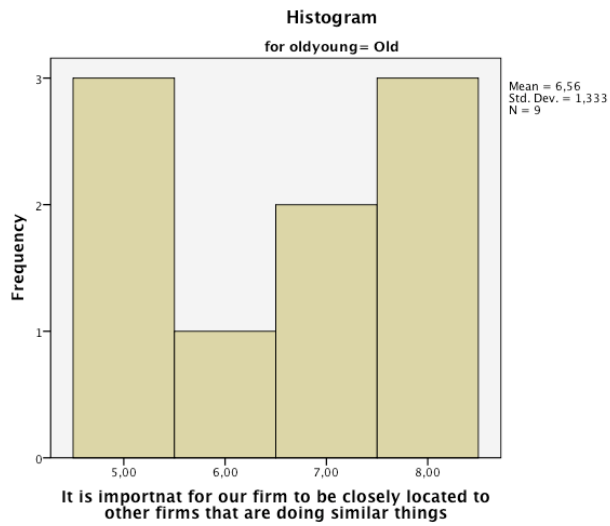


Normal Q-Q Plot of As a firm we do make use (for business purposes) of public and private places in the city of Malmö

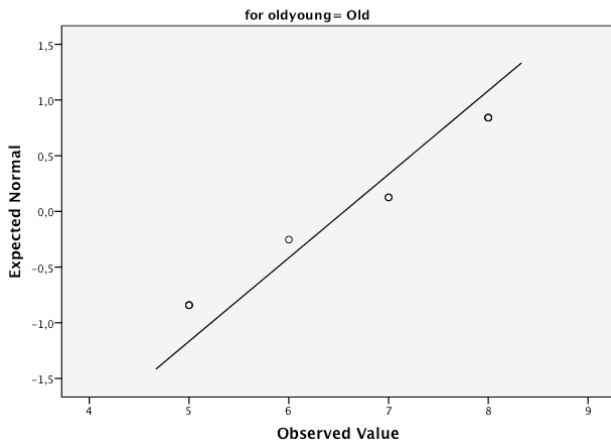


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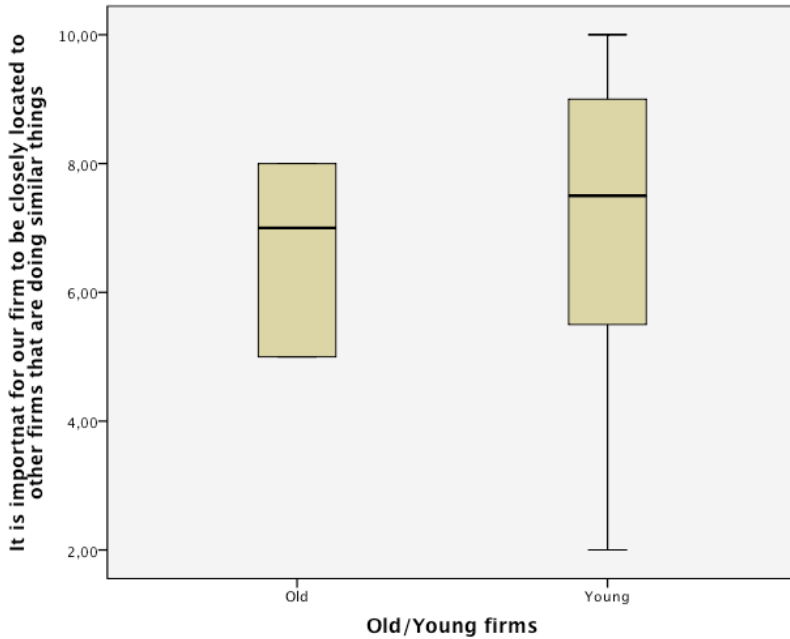
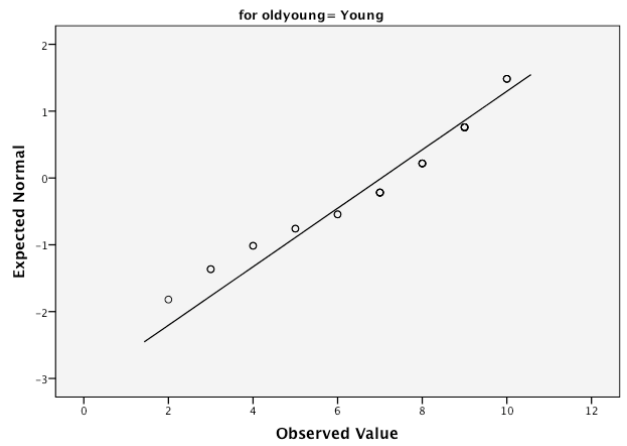


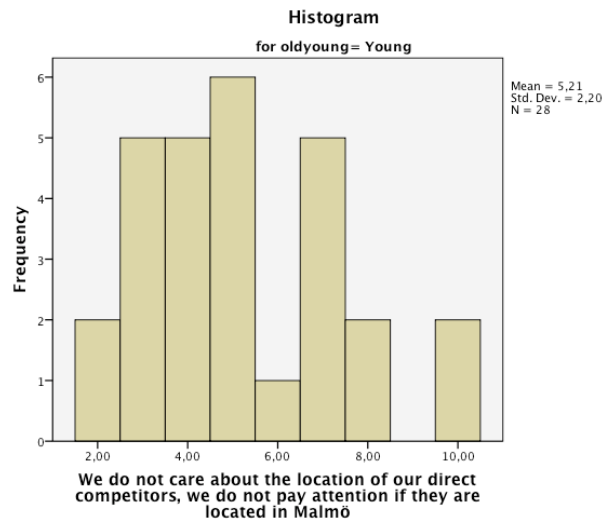
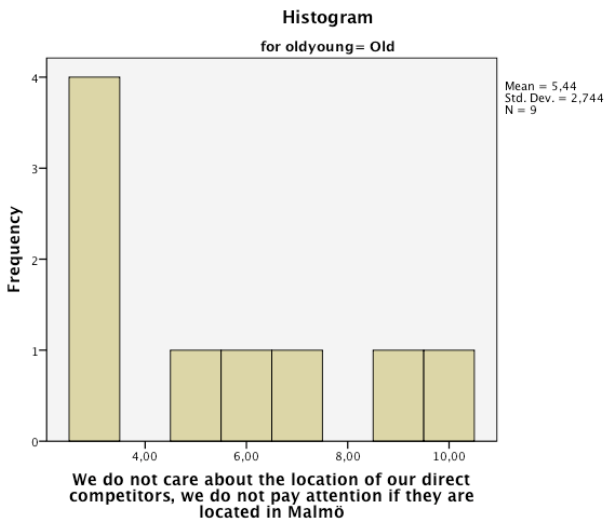


Normal Q-Q Plot of It is important for our firm to be closely located to other firms that are doing similar things

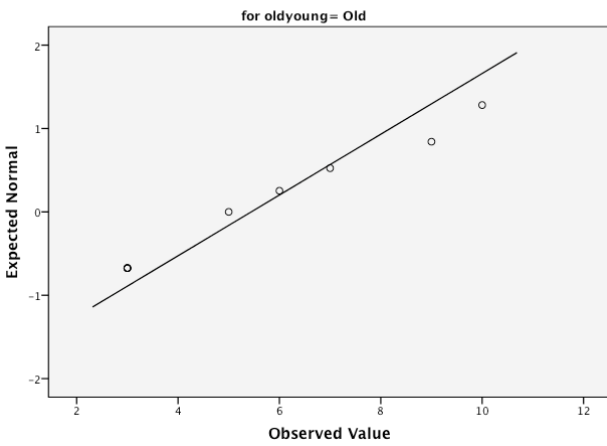


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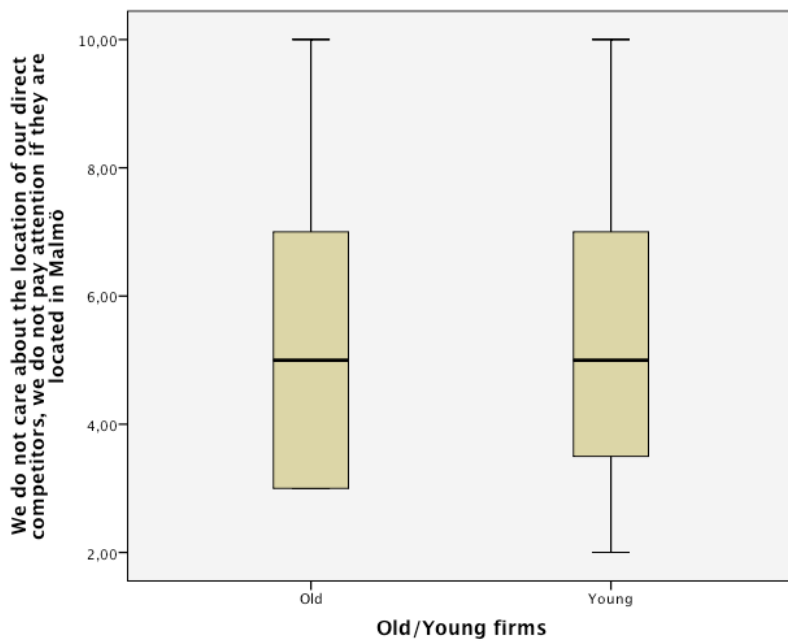
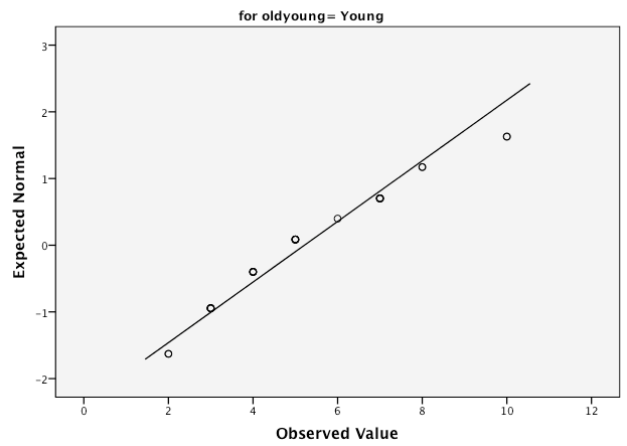


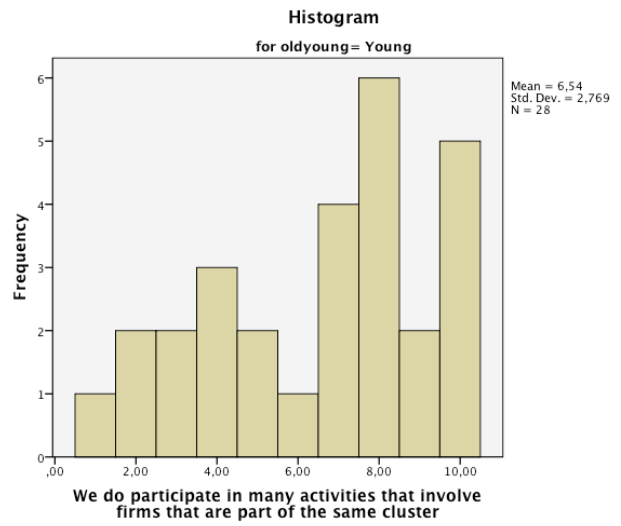
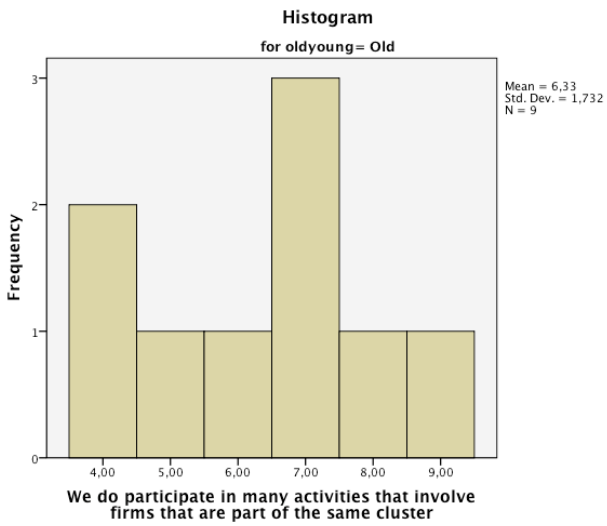


Normal Q-Q Plot of We do not care about the location of our direct competitors, we do not pay attention if they are located in Malmö

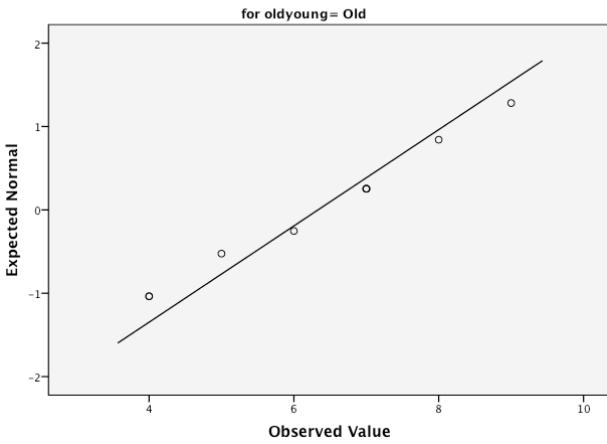


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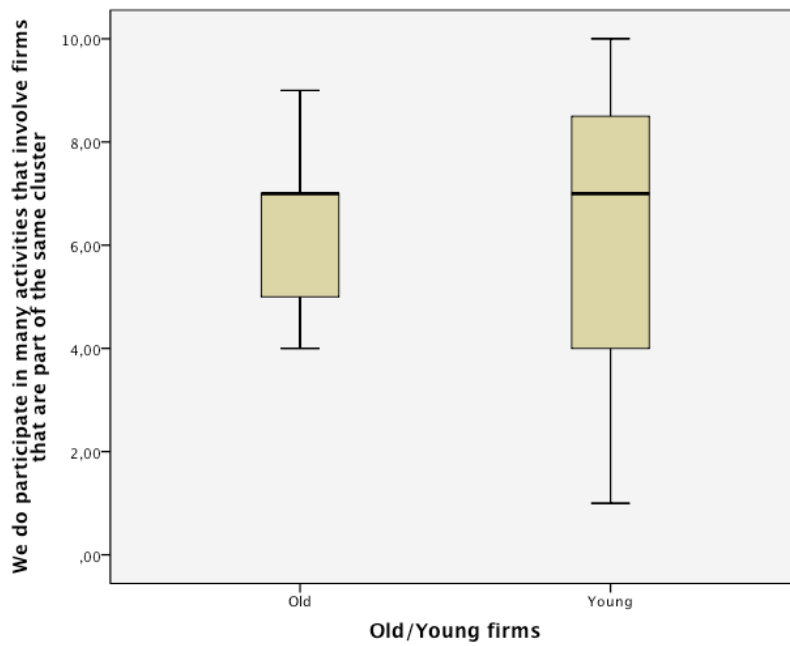
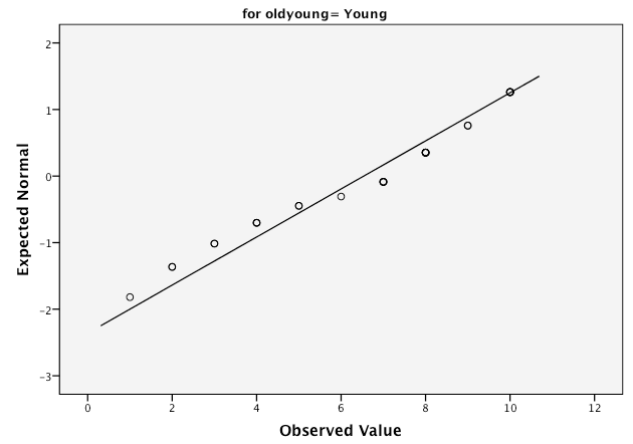


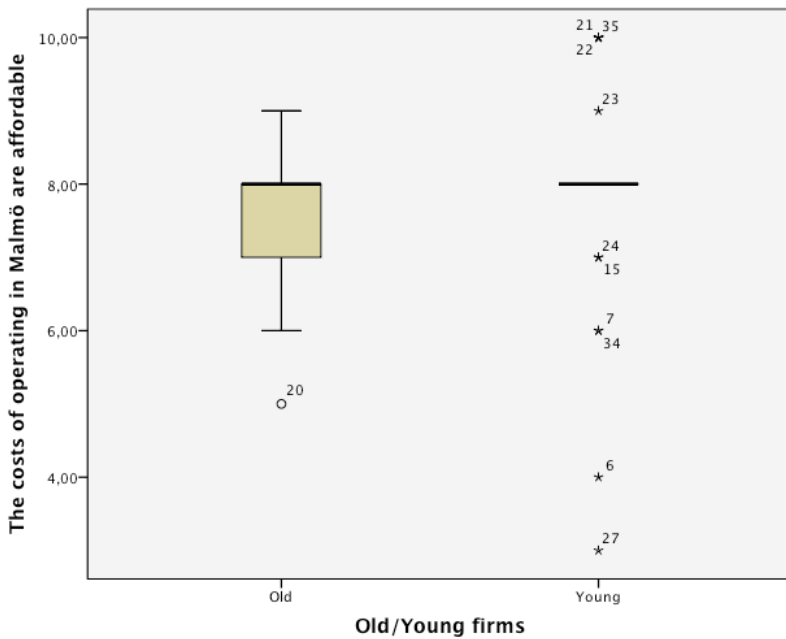
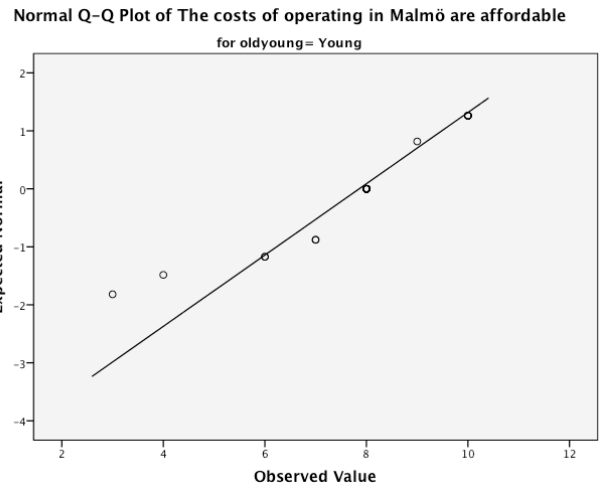
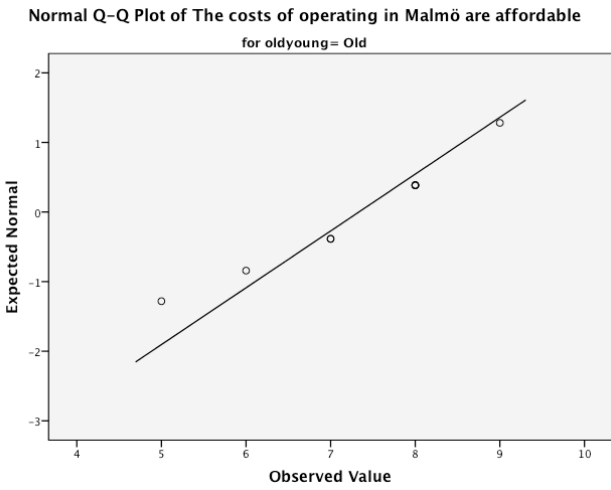
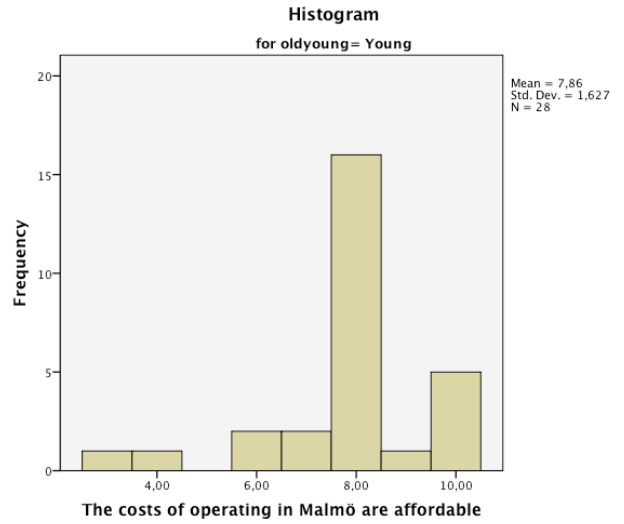
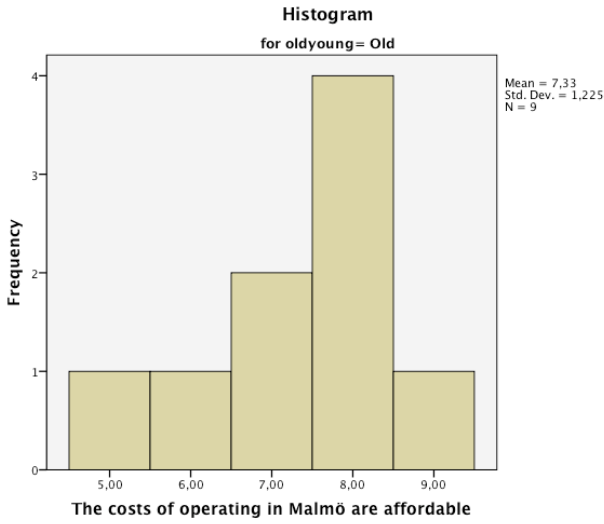


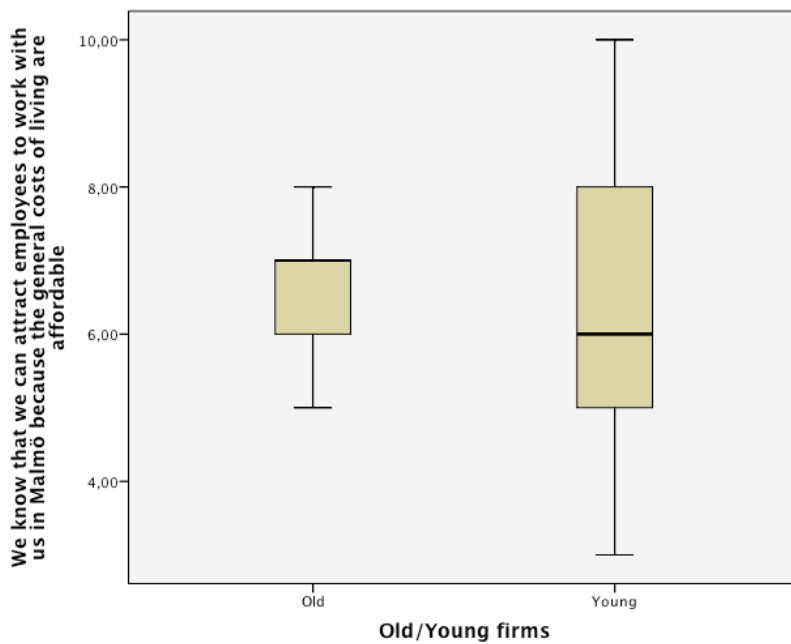
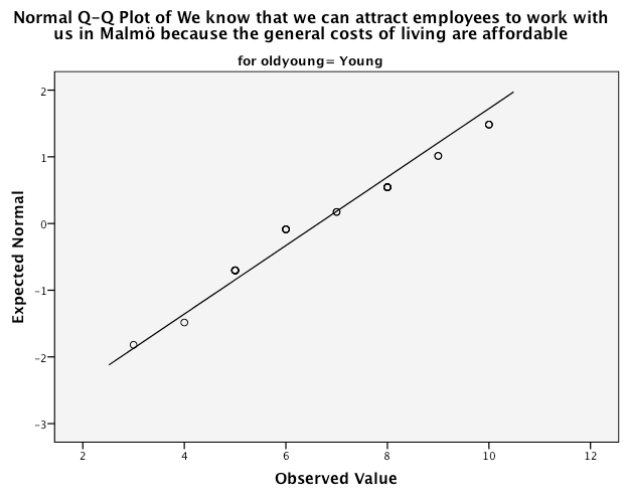
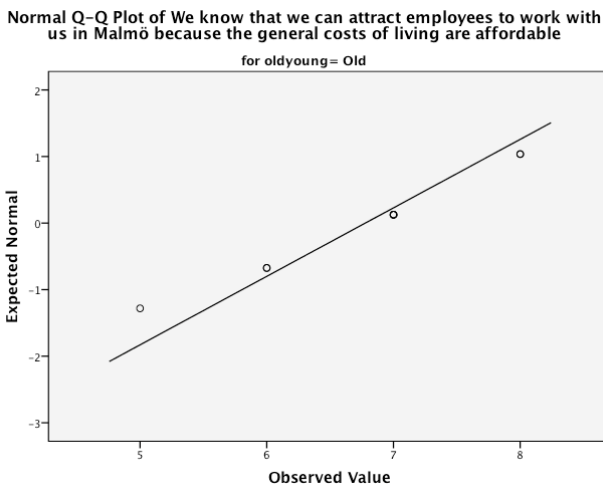
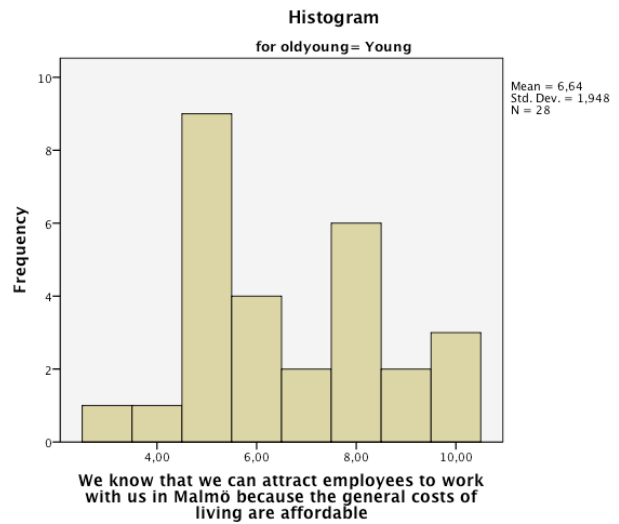
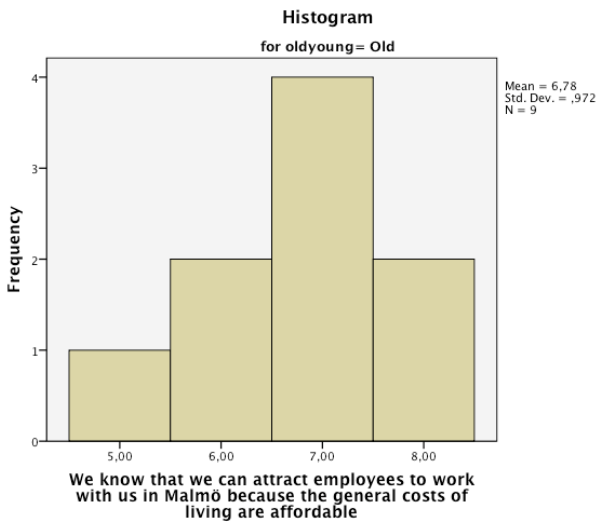
Normal Q-Q Plot of We do participate in many activities that involve firms that are part of the same cluster

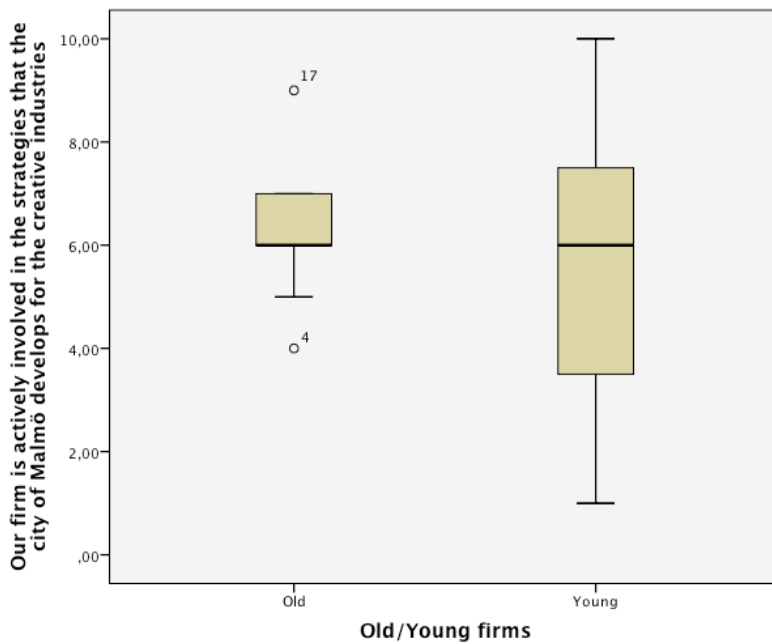
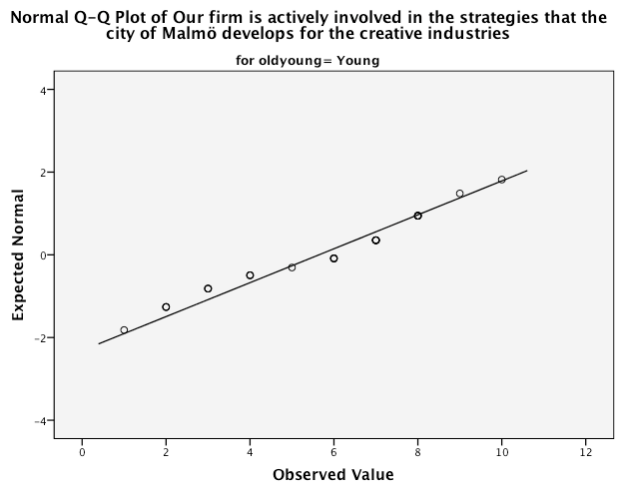
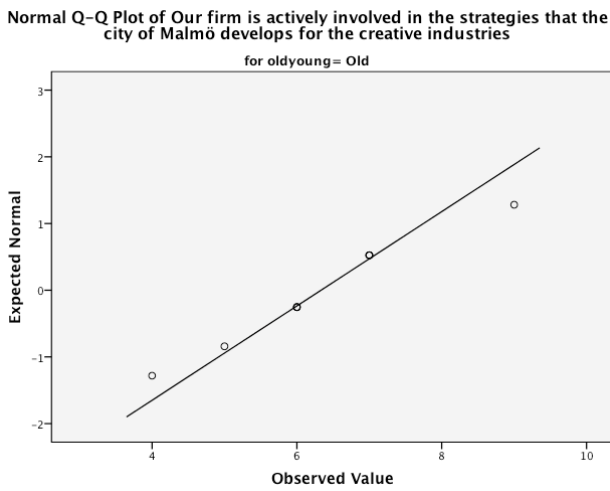
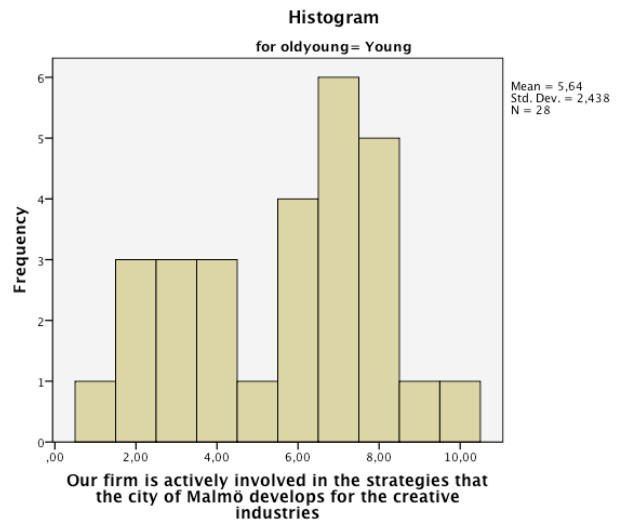
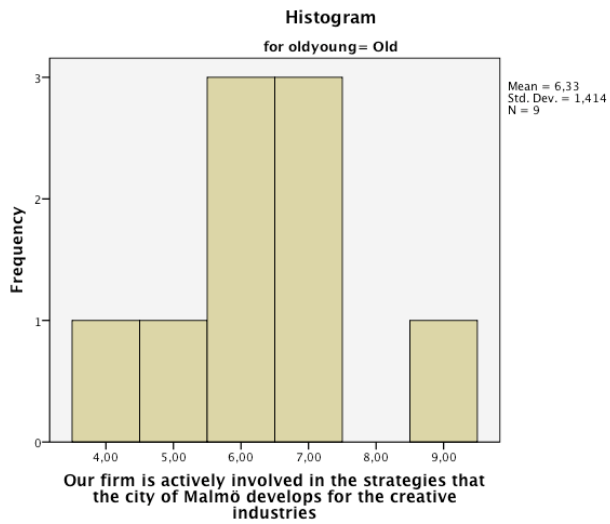


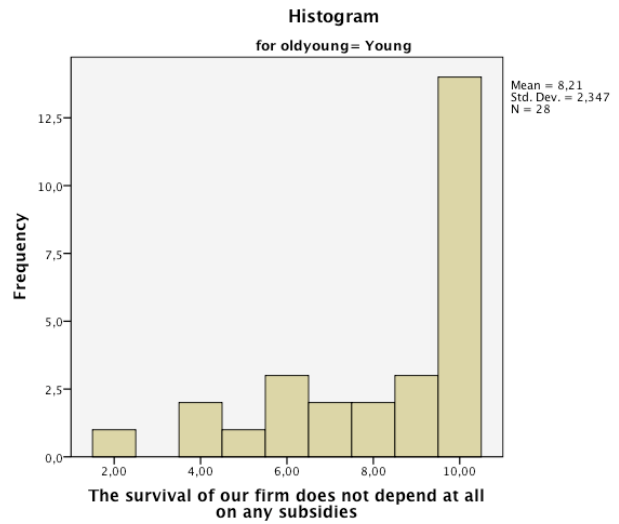
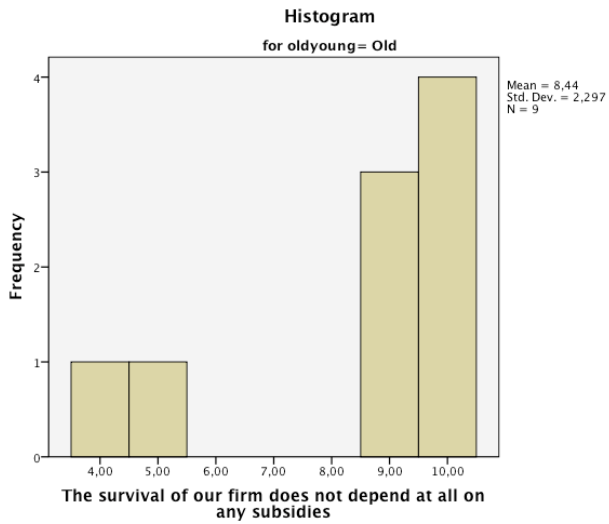
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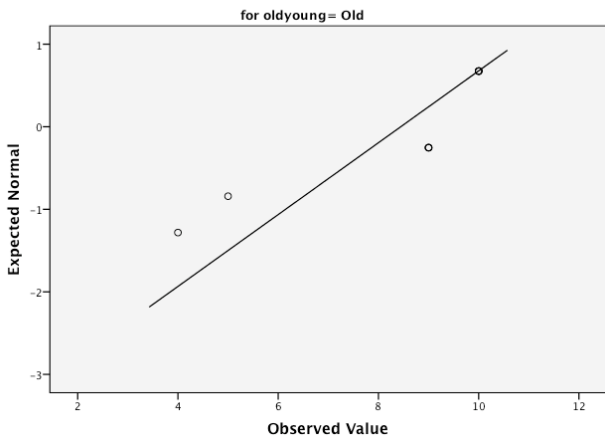




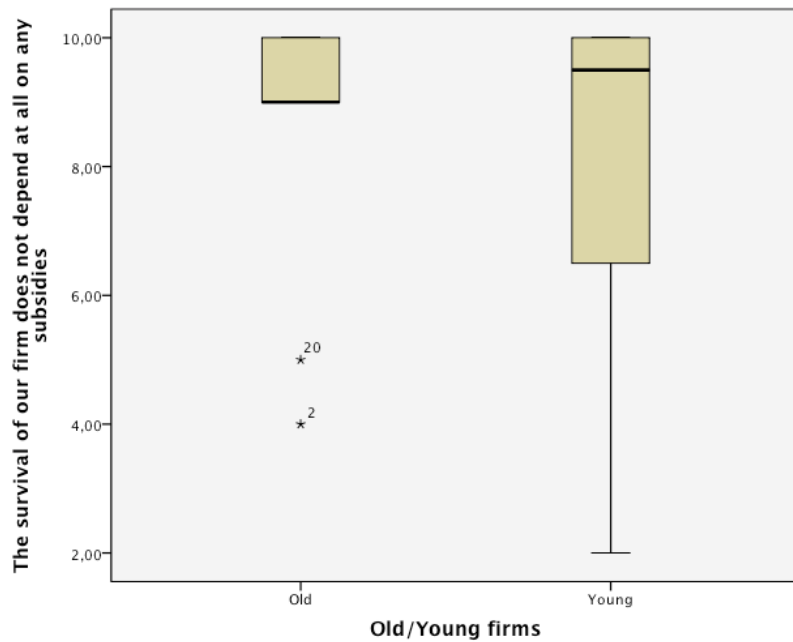
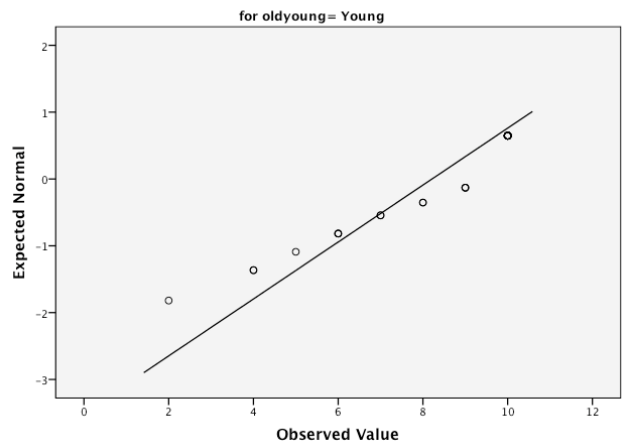




Normal Q-Q Plot of The survival of our firm does not depend at all on any subsidies



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Appendix V – Interviews

The Öresund Bridge

A: “As you can see, the data output from the surveys show that the bridge is rather important, however, it does not score much above 7. What are your comments on this?”

F1: “*Well, I understand that the bridge is important and it does help us to develop our business.*”

“It does make the city of Malmö more attractive”

“The connection to the airport is very important for us because we have international business connections”

“We take the bridge for granted, people have forgotten how complicated it was to get over to Denmark before. People tend to have a short memory”.

F2: “*As we are working mostly on the Swedish market, we do not really make use of the bridge. And we also do not make use of the airport in Copenhagen since we fly to Stockholm from Malmö Airport*”.

“We would have been located in Malmö even if the bridge was not here, there was a feeling back in 1991, 1992 and 1993 that something was going on in Malmö, the city reached a turning point and we really felt it”.

F3: “*The bridge is important. Actually, when I have some important meetings with international clients, I’d rather have the meeting in Copenhagen than Malmö, it is in a way more sophisticated in Copenhagen*”.

“Since I run a small company, I do not really make use of the airport for business purposes but, however, it is clearly an advantage to be connected to a big international airport”.

F4: “*I run a new and quite small firm, the bridge is therefore not very important for me, most of my business activities take place in Sweden*”.

“I have occasionally made use of the bridge for business meetings that took place in Copenhagen, the convenience of being 30 minutes away was great and without the bridge it would have been difficult to have had those meetings”.

“Since I do most of my business in Sweden, the airport is not very important”.

The labor market for new digital media workers

A: “What are your comments on the labor market situation for new digital media workers in Malmö?”

F1: *“When we think about new digital media, we do not think about Copenhagen, but we think about Sweden.*

“I have to say that I have not heard many stories of people in the new digital media sector that have been attracted by going to work in Copenhagen”.

“Very often they (new digital media workers) are offered higher salaries in Copenhagen, however, the cluster is in Malmö and they chose to stay here”.

F2: *“If we need to find new workers for our firm, we are positive about finding them in Malmö”*

“Even if we do not find them in Malmö, we launch a national campaign and we are sure that people will be attracted to live and work in Malmö”

“The trend that was going on a couple of years ago, of people moving to Copenhagen, has diminished. Even the Danes that moved in hordes to Sweden are not moving that much anymore, I think we have found a balance in people moving between Sweden and Denmark”.

F3: *“There are some great creative workers in Malmö and if I would need to hire someone, it would be quite easy to find a new employee”*

“Since it is not very easy to get a job in Malmö, many designers choose to freelance”

“Malmö is a young and vibrating hippie pot, a lot of different and very talented people can be found here”

F4: *“There are a lot of young, talented and educated people in Malmö, within the fields of graphic design, interaction design, game development, programming, etc. It is not difficult to find collaboration partners in the city”.*

“One of the reasons for why Copenhagen might attract workers to go over there is that in Malmö, the demand for new digital media workers is smaller than the supply. I feel that the scenario is different in Copenhagen, the demand is bigger than the supply”.

The clustering of firms in the new digital media sector

A: **“How important is it for your business to be located close to other firms doing similar things and what are your comments on the data output?”**

F1: *“I want to say that more competition would have been bad for us but I like the idea of a creative cluster that consequentially makes the city creative, personally I want to live in a creative city”*

“If they region would have been big, then yes, more competition would have been good for us. And if the region had been (more) famous for new digital media, then yes, it would have been good for us. A region that is famous for something will attract a lot of people and business”.

“We can make business with firms in Lund and Copenhagen. Outside of Scania would have been difficult, places like Gothenburg impossible. We value the everyday meetings, face-to-face connections. We want to be within a certain distance to our partners and we have the need to spontaneously visit partners and customers. I would say that one hour by car is the limit to where our cluster ends”.

F2: *“We do think about the location of our competitors, even though we do not pay too much attention to those details”*

“Obviously, a cluster of new digital media firms is good because it creates an atmosphere and it makes it easier for everyone to set up collaborations”.

“We like the fact that there are many firms in the new digital media sector in Malmö, it is good for the city and the region as whole”.

F3: *“The cluster of new digital media firms is extremely important, networking and knowledge spillovers are some important factors that arise as a result of the clustering”.*

“I do care about the location of my competitors, since I have a small business, it is important for me to understand what is going on among my direct competitors”.

“Personally, I do not participate in a lot of activities related to the new digital media cluster, but I am sure that those kind of activities are beneficial for the participants in terms of networking and knowledge spillovers”.

F4: *“I do participate in many activities that happen within the cluster. In Malmö there are great opportunities to take part of things such as open lectures, research presentations and other informal events that involve the design community”.*

“I’m happy with the general atmosphere in the design community, but!, if someone would start doing the exact same things as I do, then I would feel threatened by competition. The size of my firm is small and it is therefore with less competition”.

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