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The Formation of Local Culture and its Implications for Entrepreneurship

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JEL codes: A13, O18

Keywords: culture, entrepreneurship, economic development, social networks, regions

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Abstract

This paper examines how industrial legacy leads to the formation of a distinct local culture and how the culture's survival influences subsequent entrepreneurial activities in new local industries. The discussion about culture as a key driver of entrepreneurship and regional economic growth is well established in the academic debate. However, we know little about how an entrepreneurial culture is formed. Through a qualitative case study of two polar Swedish cities, the study highlights four key factors which are instrumental in the formation of local culture: initial conditions, characteristics of key players, network activities and composition of newcomers. Drawing on in-depth interviews with entrepreneurs and other local actors, we show how the local entrepreneurs responded to the underlying assumptions of the two different cultures. The study also highlights how two distinct culture did emerge in neighbouring cities within the same region and suggests that further insights might be gained through an additional new level of analysis when studying entrepreneurial culture.

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1. Introduction

Culture plays an important role for entrepreneurship. Well-known examples are Silicon Valley in the US (Saxenian, 1994), Emilia-Romagna in Italy (Harrison, 1992) and Gnosjö in Sweden (Johannisson and Wigren, 2006). This literature acknowledges that entrepreneurial initiatives are influenced by social expectations, obligations and ethics (Kirzner, 1973; Casson, 1995). In this respect, entrepreneurship is often described as a socially embedded phenomenon that to a large

extent is influenced by the habits, customs and traditions of everyday life in specific locations (Johannisson, 2003).

The discussion about culture as one of the key drivers of entrepreneurship and regional economic growth is well established in the academic debate (Saxenian, 1994; Gertler, 1997). Various studies have in this respect focused on how the entrepreneurial culture affects start-up rates and firm growth in regions. For example, Davidsson and Wiklund (1997) found that cultural differences explain regional variation in new firm formation within Sweden. Beugelsdijk and Noorderhaven (2004) studied 54 regions in Europe and showed that regions that score higher on 'entrepreneurial attitude' tend to grow faster. Bosma and Schutjens (2011) observe a positive link between entrepreneurial culture and start-up activities at the regional level. Adding to this, Fritsch and Wyrwich (2014) showed that persistently high levels of new business formation could be traced back to the long-lasting effect of a regional entrepreneurial culture. In that sense, culture is identified in research as having a non-trivial influence on entrepreneurial behaviour.

However, while culture is widely acknowledged as a driver of entrepreneurship and regional economic growth, the scholarly literature is much more scarce when it comes to the issue of how a culture conducive to entrepreneurship is formed (Andersson and Larsson, 2014). Evidence from past studies suggests that the evolution of a local culture is closely tied to the local industrial trajectory (Nijkamp, 2003; Aoyama, 2009). The literature also suggests that temporal persistency can be observed in business practices, routines and mental maps (Grabher, 1993; Nelson and Winter, 1982). Through the interaction between economic agents, these distinctive local mind-sets transcend sectorial boundaries and influence the activities in new industrial sectors (Aoyama, 2009). This means that the historical economic development of a location leads to the emergence of distinct social foundations of economic life which influence the subsequent economical activities (Amin, 1999).

This paper addresses this research gap by contributing to our understanding of the formation of a local culture that influence entrepreneurial activities in new local industries. Based on a historical case study of two Swedish cities, the analysis demonstrates how the industrial trajectory of the cities has shaped their local cultures. The analysis will identify the key factors which are instrumental in the formation of local culture. The two selected cities are of comparable size. Linköping has around 151,000 residents; Norrköping has around 135,000 residents. They are neighbouring cities, but are entirely different in their economic development. Linköping's economic development is driven by a combination of small and large high-technological companies, while the economic development of Norrköping is based on the longstanding dominance of a few large manufacturing companies in the textile and paper industry. In a recent survey by the Confederation of Swedish Enterprise (CSE) on entrepreneurs' satisfaction with attitudes of local public officials

and society in general towards entrepreneurship, Linköping ranks 41 while Norrköping places 223 among all 290 Swedish municipalities. These two apparently polar cases within the same region are two good examples for theorizing general conclusions on commonalities on the formation and survival of local culture. The distinct economic development in the two cities suggests that we can gain additional insights if we take the local level as level of analysis when studying culture. The remainder of this paper is organized as follows. First, the literature on culture and entrepreneurial culture is presented. A definition of culture is provided and the findings on regional entrepreneurial culture are discussed. In the next section, the method and the analytical process is described. In section four, the analysis on the importance of the historical economic development on the formation of local culture is presented and how this local culture affects entrepreneurial activities. The paper ends with a conclusive discussion highlighting the main findings and its implications for future research.

2. Theoretical foundations

Early studies focus primarily on economic factors to explain differences in entrepreneurship across nations, such as availability of technology and levels of economic development (for further elaboration see Verheul et al., 2002). Though economic factors are clearly important as drivers of entrepreneurship, the sole focus on economic variables leaves a great level of unexplained variation across countries (Uhlener and Thurik, 2007). Thus, researchers have used cultural differences to explain these large variations in the rate and continuity of entrepreneurship activity. Studies in the past have focused on national culture (Huisman, 1985; Mueller and Thomas, 2001), but scholars have more recently started to address the regional level (Fritsch and Wyrwich, 2012; Saxenian, 1994; Kangasharju, 2000). They follow recent calls that characterize entrepreneurial culture as a regional phenomenon (Audretsch, 2001).

2.1 Defining local culture

In this paper, local culture surrounding economic behaviour will be closely examined. Local culture is defined as the pattern of basic rules of a specific group that shape the behaviour of its members. These basic rules are underlying, typically unconscious, assumptions, which determine how group members make decisions and act (Schein, 1984). Individuals and organizations are likely to conform to prevailing assumptions in local settings by repeating behaviours that are typical for their group. These repeating behaviours can both be conscious acts to gain social acceptance or less conscious imitations of observed typical, valid behaviour (Powell and DiMaggio, 1991). Individuals conform to these assumptions because the group rewards individuals whose behaviour reflects these values with social prestige and privileges. Thus, individuals may conform to values even when that

behaviour may not be consistent with their own values. The cultural assumptions are increasingly taken for granted and individuals become unaware of the assumptions that guide their decision making and behaviour. The underlying assumptions that prevail in local settings are powerful and enduring since they are highly implicit and thus not easy to confront or debate.

2.2 The effects of culture on entrepreneurship

Culture is a multifaceted concept and has often been discussed in terms of entrepreneurial attitudes, entrepreneurial (social) capital and social legitimacy.

The most frequently used aspect of culture is the measurement of entrepreneurial attitudes in a location. Measures reflecting entrepreneurial attitude at the regional level are strongly embedded in trait research (Beugelsdijk, 2007; Bosma and Schutjens, 2011). Individuals should state if they agree or disagree with certain statements, such as important qualities to teach children, attitude towards social issues, financial pay-off, etc. (Bosma and Schutjens, 2011; Davidsson, 1995). These statements should reflect certain dimensions of entrepreneurship, as identified in entrepreneurship trait research, such as need for achievement, need for autonomy and locus-of-control (McClelland, 1987; Brockhaus, 1980). Findings in this stream of research suggest that if a location or society holds many individuals with distinct entrepreneurial attitudes, there will be more individuals displaying entrepreneurial behaviour, thus leading to a distinct entrepreneurial culture in that location (Uhlaner and Thurik, 2007).

However, it may be limiting to assume that individual values reflect member-shared values. Studies have shown that there is a low and sometimes even negative correlation between individual values and member-shared assumptions (Fischer, 2006). Hence, if the aim was to make comparisons across different locations, the appropriate method would be to ask individuals about shared cultural assumptions rather than asking individuals about their own values.

Furthermore, the role of social legitimacy in explaining economic behaviour has also been stressed as a core element of a region's entrepreneurship culture (Aldrich and Fiol 1994; Kibler et al. 2014). Social legitimacy is understood as the convergence of perceptions in a location or society that specific activities, such as entrepreneurial activities, are desirable and appropriate (Anderson and Smith 2007). In that sense, social legitimacy determinates to some extent if an individual follows her intentions to start a business. Individuals might very well score high on entrepreneurial attitude, but if there is no social legitimacy, they might not act accordingly. Regional social legitimacy of entrepreneurship influences the degree to which a region provides a beneficial environment for the emergence of entrepreneurial behaviour (Kibler et al., 2014). In that sense, the social legitimacy aspect does not focus on individuals and their own values, but focuses more on the assumptions of the broader society. The extent of legitimacy varies from one society to another and

may also change in time periods. Legitimation can thus be conceptualized as a continuous variable and might wear out over time (Etzioni, 1987).

Another important cultural aspect in relation to entrepreneurship is social capital (Malecki, 2012). The norms and value aspect of social capital is closely connected to the concept of culture, although culture, in general, is a much broader term (Westlund and Bolton, 2003). Social capital is often conceptualized as a set of social resources embedded in relationships and the resources available to people through their social networks (Anderson et al. 2007). Studies have shown that social relationships embedded in local cultures and traditions often affect entrepreneurial processes where entrepreneurs use their social capital to access resources (Batjargal and Liu, 2004). A shared local culture can enhance knowledge transfer between economic agents (Malmberg and Maskell, 2002). One need to understand this 'common language' to be able to operate in this particular sector. Again, the cultural aspect comes through the embeddedness of social interactions and group belongingness. An individual can access social capital only by being part of the network where the social capital resides. To some extent, however, a potential cultural divide can be overcome through indirect access, for example mediated access through wider social relations in which their immediate ties are embedded (Kim and Aldrich, 2005).

Other studies address the cultural aspect more implicitly. The entrepreneurial ability in a region depends on entrepreneurial talent among inhabitants and on region-specific factors that enhance this ability (Kangasharju, 2000). This perspective stresses the importance of role models. Small firms function as seedbeds where employees get familiar with entrepreneurial work that lowers the barriers to own entrepreneurial actions. Similarly, Audretsch and Keilbach (2004) highlight formal and informal networks, social acceptance of entrepreneurial activities, and the presence of financiers willing to invest in new ideas as distinct features of an entrepreneurial capital in a region. These studies do not explicitly include culture, norms or values into their discussion, even though their argumentation has a strong cultural dimension.

In sum, the discussion above suggests a relatively complex and intertwined relationship between regional culture and entrepreneurship. However, past research has been overly biased towards culture as a predictor rather than an outcome. It is of immense importance to examine the process by which cultures are actively produced and reproduced by social practices and institutions over time. In that sense, culture is not a static concept which 'produces' regional and local differences, but is the outcome of social and economic interactions (Gertler, 1997; Saxenian, 1994). Only if we understand how culture is formed and manifested in individual activities we can understand how this culture influences entrepreneurial activities. The suggestions by Aoyama (2009) and Nijkamp (2003) that the industrial legacy of a place influences strongly which culture is shaped calls for a new level of analysis. We take a qualitative approach to the study of how local cultures are formed

and influences entrepreneurial behaviour and activities. Rather than asking entrepreneurs and others about their own values towards different dimensions of entrepreneurship, we analyse entrepreneurial actions and the locals' responses to those actions.

3. Research Methods

Two Swedish cities were selected for this research based on the results of a recent survey by the Confederation of Swedish Enterprise (CSE). The survey included 60'000 business owners and entrepreneurs all over Sweden who were asked about their municipalities' business climate. One important part of the survey focuses on the local entrepreneurs' perceptions of attitudes to entrepreneurship among different local groups, such as local politicians and public servants, but also local society in general. The survey suggests striking differences between Linköping and Norrköping, which are known as 'twin cities' in Sweden. In terms of perception of attitudes, Linköping ranks well above Swedish average, while Norrköping scores well below average. Taking all factors together, 62% of the entrepreneurs in Linköping state that their municipality has a good, very good or excellent business climate, while only 32,6% in Norrköping state the same. Thus, seen as two polar entities operating within the same national and regional culture, the two cities seem to provide an excellent opportunity to set up a study of how a local entrepreneurial culture is formed.

3.1 Data collection

Following Eisenhardt (1989), we used multiple sources of data for our case study. In addition to interviews, we collected data from archives, chronicles, media reports and organization documents. In total, we conducted 28 semi-structured interviews in the years 2011 and 2014. The interviews lasted between 90 and 120 minutes each. These interviews gave us insights into the local network structures and the motivation behind sequences of events. As interviews may be subject to retrospective biases, we cross-checked interview statements with each other and with secondary sources.

One group of interviewees (13) represent the organizations and individuals that were in place before the new industry entered the cities such as municipal administration, investment firms, LiU and SAAB AB, and local workers which were also members of the Labour Union. Some of these people changed position or affiliation and could give insight from two different perspectives. For example, LiU staff became entrepreneurs, entrepreneurs joined investment firms, and union members became active in the Social Democratic party.

The other group (15) represent both entrepreneurs and local business community leaders. These respondents were randomly selected among the first wave of technological entrepreneurs in the cities. These waves appeared in Linköping between 1979 and 1985 and in Norrköping between

1995 and 2001. We asked the entrepreneurs to describe their motivation and behaviour when they founded their companies. We also asked them how people in the local community perceived and reacted to this entrepreneurial behaviour.

Also various secondary sources have been consulted. Detailed information on the actions and values of the labour union members was obtained from the extensive local archives of the labour union in Norrköping. Norrköping's and Linköping's chronicles gave a good overview of the social and economic development of the cities before 1980. Additional information about the various local organizations has been gathered from their internal documents.

3.2 Analytical process

The analysis of data is the central element of a qualitative study and it is also the most demanding and least codified process (Eisenhardt, 1989). Following recommendations for process research (Zietsma and Lawrence, 2010), various analytical stages were designed. The within-case analysis is useful for dealing with a large amount of data (Yin, 1981). Based on the interviews and other data, a chronological list of events for each city has been constructed and two narratives have been written. Next the study's boundaries have been identified and the relevant events. Then, the relationships between these events and the actors have been identified. This step allowed determining which events led to other events and whose actions influenced the events. Finally, rewriting the narratives in summary form completed the analytical process. The validity of the data was enhanced by triangulation of the different data sources.

In order to identify patterns, we performed a cross-case analysis using a matrix technique for comparative analysis. In these matrices, exemplary quotes and other research findings were sorted by topic. Examples from the matrices are included in the section on the cross-case analysis. Miles (1979: 599) notes there is 'the steady tension between the unique, contextually specific nature of single sites, and the need to make sense across a number of sites'. This comment suggests that accurate although thin generalizations among cases can only be the result of cross-case analysis (Yin, 1981). Linkages to the argumentation in existing literature on regional transformation and culture will allow for a more general argumentation rather than analysing two specific cases. Key quotes from the interviews will however ensure that this discussion is grounded in the specific cases.

4. The economic conditions for local culture

Before discussing the results of the cross-case analysis, the economic histories of the two cities is briefly presented. This overview places the results of the cross-case analysis in a broader context that leads to a better understanding of how their local cultures emerged. As argued in the

subsequent sections, the two cities have distinctive industrial legacies: Norrköping as a traditional manufacturing city with large mass-production firms and Linköping as a high-tech pole. Table 1 gives an overview of the historical development of the cities.

[Insert table 1 here]

4.1 The county administration Linköping

Ever since the Catholic Church built a cathedral in the 12th century, Linköping was an important centre for education and public administration in the region. In 1627, the former cathedral school was converted into one of Sweden's first high schools. In some periods, the number of pupils matched the number of inhabitants. Although important for the church and education, Linköping remained a small rural town with no significant industry before the 20th century.

Nowadays, Linköping is recognised as the Swedish aviation capital with the only airplane manufacturing site in Sweden. In 1909, the Uggla family established the private Swedish Railroad Shop (ASJ). Soon, cars and trucks started to compete with railroads and ASJ was forced to diversify into airplane manufacturing. The aviation division was bought by SAAB AB in the end of the 1930s, which located its own airplane manufacturing to Linköping after that. The first large-scale production entered Linköping and SAAB became the largest private company and still is today. In the 1950s, SAAB diversified into the computer industry and the computer division was spun-out as Datasaab in 1978.

SAAB, as a technology-based company, did provide jobs for highly skilled employees, but was also a key actor in bringing the university to Linköping. In the 1950s, SAAB director Lars Brising and civil servant Samuel Bergbäck lobbied at the national level for a university college with strong linkages to the local industries. In 1967, the institute of technology welcomed its first students and was granted full university status in 1975.

From the beginning, Linköping University (LiU) was actively encouraging strong ties between the private industry and university employees. Due to its importance for the local economy, SAAB was actively involved in shaping the university's profile. SAAB's computer division, Datasaab, successfully developed mainframes for the private market and LiU received Sweden's first IT professorship accordingly.

In the 1970s, several public sector research establishments entered Linköping, such as Förenade Fabriksverken (FFV) and Swedish Defense Research Establishment (FOA). Around the same time, the first university spin-offs were established. University employees saw the commercial potential of their research and started to spin-out from several departments: Imtek, Contextvision, IDA Infront, just to mention a few. Also students started companies, such as IFS, Intentia and Exit Marketing. These spin-off companies would lead to the emergence of the IT industry. In the early

1980s, Mjärdevi Science Park was established by the municipality to support the entrepreneurial activities in the city.

Nowadays, the local economy is dominated by technology-based sectors. The largest 2-digit SNI sectors with a share of at least 5% of the total workforce are: (35) manufacture of other transport equipment where all employees are classified under (35300) manufacture of airplane and spacecraft, (74) other business activities as well as (72) computer and related activities. Altogether these three sectors employ 46% of the total workforce.

4.2 The industrial city Norrköping

In the 19th century, Norrköping was Sweden's second largest urban centre and the textile industry dominated the local industry. Early industrialization made large-scale production possible and Norrköping produced over 70% of the Swedish cloths production. Soon, other large-scale manufacturing industries such as the metal and paper industry followed and Norrköping's economical foundation was dominated by manufacturing industries.

In the 1950s, the textile industry started to decline due to fierce international competition and reduced demand for wool products. The last of the big textile companies closed down in the 1970s. The increasing competition from countries with cheaper work force soon also affected the paper and metal industry. With the large job providers closing down, job opportunities for the workers diminished and the number of unemployed people increased (SCB).

Ever since the economic decline, the municipality in crises turned to the national government for help. The national government agreed for incentives for the declining local economy and to relocate several public organizations from Stockholm to Norrköping. In the years 1975-1976 five state agencies with about 1500 employees moved to Norrköping. The incentives were aimed to attract manufacturing companies to Norrköping, but these activities had modest success at best. Few plants settled down in Norrköping such as Flextronics and Strand Interconnect and even fewer survived on the long run.

The national expansion of the higher education system gave LiU an opportunity to establish its Norrköping campus. The campus offered its first education programmes in 1997 and small companies started to settle down looking for close proximity to the university. Spin-off activities from university staff and former students can be observed. The spin-offs reflect the profile of the campus: Media technology, transport, electronic design and communication technology. Many of the newly emerging companies focus on virtual reality and scientific visualization.

Nowadays, the traditionally strong industrial sectors are still the largest 2-digit SNI sectors with a share of at least 5% of the total workforce: (63) transport sector, (74) other business

activities, (21) manufacturing of pulp and paper as well as (29) manufacturing of machinery. Altogether these four sectors employ 39% of the total workforce.

5. Cultural influence on economic agents

5.1 Formation of local culture

Initial conditions. In terms of their economic development, the two cities had quite different initial conditions; the key difference being the period of industrialization. Advantageous natural resources, such as the river, played an important role to attract the textile production to Norrköping. The river provided large quantities of water required for textile production and provided fast access to the Baltic Sea which enabled the fast distribution of large quantities of textile. Large difference in altitude made the river ideal for driving water mills. From the 1850s onwards, the textile industry was directed towards the mass production of textiles and by 1860, 73% of all blue-collar workers in the county were employed in Norrköping. As in many old industrial areas, a resource-based industrial monostructure started to emerge due to the increasing dominance of the textile industry (Hassink, 2007). The business owners had a strong position and could shape their local production environment, such as the emergence of a highly developed and specialized infrastructure. This industrial monostructure was beneficial for the diversification into other manufacturing industries, namely the paper and later on the metal industry. At the beginning of the 20th century, the manufacturing industries employed over 50% of the local workforce in Norrköping. In 1900s, the city had 50000 inhabitants and several flourishing manufacturing industries.

The situation was rather different in Linköping. While Norrköping was the dominating manufacturing town in the region, Linköping was the educational and administrative centre in the region. In the 12th century, Sweden's first monastery was established in Linköping and functioned as a centre for education. The later establishment of the cathedral strengthened Linköping's position as a religious and educational centre in Sweden. In 1634, Sweden was divided into several counties and Linköping was a natural choice for the capital due to its history. Linköping became the capital in the region where the governor residence and the county administrative board was located. In 1860, while the county's blue-collar workers were concentrated in Norrköping, Linköping employed only 1%. In 1900s, the city was small with about 15000 inhabitants and of rural character with basically no industry. ASJ was one of the first companies within the manufacturing industry. A change in demands forced the company to diversify into related markets (Markides and Williamson, 1994). The later diversification into manufacturing of airplane bodies would prove itself as an important business decision with tremendous effects on Linköping's future development.

Powerful key players. With the initial conditions in place, powerful key players entered the cities. Due to large differences in the initial conditions, the key players are entirely different in nature. In all aspects, Norrköping was a perfect example of an industrial city. The early industrialization and subsequent growth of the manufacturing industries lead to a remarkable share of blue-collar workers in Norrköping as seen in table 2. This initiated a self-reinforcing mechanism since the emerging industrial monostructure favoured large manufacturing companies which again provided more jobs for blue-collar workers and left little possibility for other economic activities.

[Insert table 2 here]

At the same time, all over the industrialized countries, the labour movement emerged as a reaction to the poor working and living conditions of the working class. Also in Norrköping, the workers started to get organized in the trade union. The trade union united the mass of the workers to ‘fight the common enemy: the capitalist employer’ (Horgby, 2012). It gained its power through the collective, where everyone worked towards the same goals given by the trade union. In Sweden, there was a strict separation between union members and non-members. The negotiations by the trade union would only benefit members. This led to a high unionization rate in Norrköping which again resulted in a strong position of the labour union as a strategic counterpart of the local business owners. The clear distinction between members and non-members meant that either you were committed to follow the outspoken directives of the trade union or you were socially excluded.

‘Every morning the organized workers shook hands with the union members, but not with strike-breakers or those who didn’t pay their union dues. It was decided to list their names in our union newspaper. [...] There was also a clear directive which newspaper to read and where to buy our groceries. We would ask for your receipts if we suspected otherwise.’ (trade union official A)

In Linköping, differences in the economic structure and how the working life was organized prevented the formation of a strong labour union. Instead, a large technology-based company would become the key player in Linköping. With SAAB, the first large-scale production entered the city and the company became quickly the largest private company. In that sense, also Linköping was to become dominated by a large manufacturing company, but due to the late industrialization and the industry-specific characteristics of the airplane industry, the city would not develop into an industrial city with a strong trade union. SAAB had a large share of white-collar workers which were not organized to the same degree as the blue-collar workers. The low share of blue-collar workers meant that the trade union became less dominant in Linköping. The rapidly increasing

complexity of airplane development required substantial R&D and the inclusion of many different technologies. Hence, SAAB required a highly skilled and highly educated workforce which was not easily replaceable. Figure 1 shows the exceptional high share of white collar employees at SAAB.

[Insert figure 1 here]

Networking activities. Both key players initiated purposeful actions to create a more beneficial local setting. But due to their difference in nature, they also aimed for different particular characteristics of their settings. In Norrköping, the trade union initiated networks which would allow to increase their sphere of influence in the social, political and economic life. While the business owners already started to create a favourable business environment, the trade union and its subsequent actions would allow for an even stronger alignment on all levels towards an industrial monostructure. The social-democratic party in Norrköping was formed by members of the labour union to gain more political power and individuals moved frequently between the union and the party depending on the issue in question (Horgby, 2012). This close collaboration between social democratic party and labour union can be described as part of thick institutional tissues aiming to preserve existing traditional industrial structures (Hassink, 2005; Fuchs and Wassermann, 2005). A self-sustaining coalition with a common goal was formed by a homogenous group of political administration, trade union, larger enterprises and workers (Grabher, 1993, Hassink and Shin, 2005). This self-sustaining coalition lobbied for sectoral interventions at the national level. Hence, the national government played an important role in sustaining these thick institutional tissues at the local level. In these kinds of cultures, status and power is privileged over creativity and past over present and future (Hassink, 2005; Morgan and Nauwelaers, 1999). The incentives resulted in a specialization in a narrow group of sectors with correlated demand (Frenken et al., 2007). From 1950s onwards, the demand shocks resulted in a decline and high rates of unemployment. This reinforcement of existing structures hampered industrial restructuring and indirectly also the development of endogenous potential.

In Linköping, a rather different network started to emerge between numerous technology-based players. The Swedish military upgraded heavily during the cold war and SAAB AB received large orders for military airplane production. The local workforce however did not meet the increasing need of a college-educated, specialized workforce. At the same time, the Swedish government decided to increase the number of higher education institutions and different actors in Linköping were determined to attract such an establishment. The private firm SAAB AB and the municipality as a public actor formed a constructive partnership to suggest the establishment of a technical college with strong links to the private industry (Rangan et al., 2006). Due to its history as

an educational centre for the region, Linköping was a given site for a college. SAAB as the dominant private company had a strong influence on the university's educational profile. Strong university-industry linkages did not fit into the prevailing academic paradigm, but such linkages were considered beneficial for both SAAB AB and the university. The vice-chancellor acted as an institutional entrepreneur and strived for a new academic culture (DiMaggio, 1988). The vice-chancellor aimed to recruit young scholars from prestigious universities which were known for their relations to the industry. In order to match the need of the private industry new educational programs was designed: IT and civil engineering programs originated at LiU.

It was a great period of experimentation. To start a new university from scratch with new educational programs required the dedication of young, inspired people. There was no blueprint, but we could create our own university. (university staff A)

It was in SAAB's interest to educate a suitable workforce and the company therefore donated a used model of its mainframe computer D21 for educational use. As a closed military company, the company was however not interested in cooperation projects. The technology-based network was further enhanced through the entrance of FFV and FOA. The co-location of private high-tech companies, public research establishments and the technology-based university led to a dynamic labour market and a highly educated workforce.

Composition of newcomers. In both cases, the cities grew substantially due to the increasing need of labour. Due to their differences in economic structure, the newcomers differed. Norrköping mainly grew in the turn of the 20th century due to intra-regional movements. The need of the expanding manufacturing industry could be met through the recruitment of unskilled and uneducated workers from the rural surroundings. This fostered a homogenous social structure which fuelled the dominance of the trade union and its preconceptions. Ever since the economic decline, the number of inhabitants stagnated which strengthened the dominance of thick institutional tissues. Through the establishment of Campus Norrköping, there is now a steady inflow of young newcomers which challenge the established closed networks.

'We didn't had a great inflow of new people. No one really wanted to move to Norrköping. The few ones that came, came often from the immediate surrounding or other industrial cities and they felt quickly like home.' (municipal employee Norrköping A)

In Linköping, SAAB started to expand quickly and was in desperate need of specialized workforce. The local labour force could not meet this demand and a high inflow of highly educated newcomers from all over Sweden entered Linköping. By 2012, 55% of all SAAB employees held a university or college degree. Later on, also the university attracted newcomers to Linköping. The city Linköping was growing, because of the exceptional high inflow of people from diverse institutional backgrounds. This high inflow resulted in a high diversity where most of the inhabitants were new to the city and the region. The rural character of Linköping meant that there were little preconceived understandings about the economic arena and no favourable conditions for the formation of closed networks. The newcomers did not need to relate to strong existing preconceptions but could create more freely their own rules of the game (North, 1990).

‘Only few could really claim to be locals by birth. People were moving to Linköping from all over Sweden. People came from different backgrounds, but they spoke the common language of engineering.’ (SAAB employee A)

The key factors for the formation of local culture in both cities are theoretically summarized in table 3. The nature of these key factors lead to different possible implications for local entrepreneurial activities. In Norrköping, the reliance on external input to strengthen the existing local structures and homogeneity left little place for entrepreneurial initiatives (Friedman, 1991). In Linköping, the constant high inflow of newcomers lead to a heterogeneity which was important for the development and acceptance of endogenous forces.

Aoyama (2009) showed that the origins of local culture could be traced back to a distinct mind-set in one industry sector which eventually transcended sectorial boundaries. The case of Norrköping supports this understanding. In contrast, Linköping’s profile of a small, rural city makes it difficult to argue for such an interpretation. The continuous entrance of several technology-based players and the high number of newcomers led to a heterogeneity and a constantly evolving local setting where everything was possible.

[Insert table 3 here]

4.2 The influence of local culture on entrepreneurial activities

If economic activities are conditioned by ongoing structures of social relations, also the entrepreneurial process needs to be seen as contextual and socially embedded. Hence, it is important to understand how local culture continues to affect entrepreneurial activities in newly emerging local industries.

Due to the thick institutional tissues, entrepreneurs in Norrköping felt a strong social pressure how things should be done in the 1990s. In a local culture, where business owners were described as ‘the capitalist enemy’ until the 60s (Horby, 2012), people had a strong opinion about entrepreneurs (Atherton 2004). Doing things ‘differently’ was not easily accepted. Start-up companies did not fit in the idea of the labour union of fixed, long-term employment contracts. Also the idea of providing services and software instead of actual physical products was troubling to many locals.

People have a very clear idea about how things should be done around here. In 90s, if you wanted to do things differently in Norrköping, the labour union would come knocking at your door. And the municipality had this fixed idea that the manufacturing industry would turn the fate of this city around. Hence, we didn’t get much support.
(entrepreneur Norrköping A)

Literature on institutional entrepreneurship suggests that the local entrepreneurs would actively alter the institutions or the impact of institutions already in place (Henrekson and Sanandaji, 2011). But the closeness of Linköping weakened the importance of the local culture. Although the companies were located in Norrköping, entrepreneurs turned to Linköping for support and were not interested in actively challenging the prevailing assumptions of the local culture. Being part of LiU, Norrköping entrepreneurs were integrated in LiU networks. To some extent, Norrköping entrepreneurs took pride in being different.

We didn’t care much for the culture in Norrköping. At the beginning, we wanted to get support and encouragement, but in the end we were our own little group. Of course we could ask each other for practical things, but mainly it was good to know that you were not alone. (entrepreneur Norrköping B)

Thick institutional tissues are temporally persistent and change only over generations. In line with the theoretical discussion above, it can be argued that a change in the economic conditions, such as the increasing competition from countries with low labour costs, could show that some of the cultural assumptions are not valid anymore (Friedman, 1991). Hence, few individuals started endogenous initiatives, but they could not shake free entirely from existing cultural assumptions. While the need for own local initiatives started to emerge, these local initiatives were aimed towards manufacturing companies. After the modest success of the government incentives, two municipal counsellors sought new companies to revive Norrköping’s economy. However, they

were targeting established companies, not entrepreneurs. Through the transplantation strategy, they sought to inject new actors into the regional system (Lester, 2005). These new economic actors should fit within the existing culture rather than challenging it.

Two municipal counsellors started to take matters in their own hands. They tried to make things easier for us, but they were mainly trying to attract established companies. There was certainly not much support for such undemocratic decisions. (entrepreneur Norrköping C)

In that sense, local actors need to unlearn much of their conventional wisdom. Studies however have shown that unlearning is far more difficult than learning, because of the internalization of cultural assumptions (Malmberg and Maskell, 2006). Most of the time, individuals are not aware of what they have learnt and how learnt assumptions are influencing behaviour.

Such thick institutional tissues could not be established in Linköping due to the combination of the relatively late arrival of the manufacturing industry in the 40s and the early emergence of an entrepreneurial mass in the 70s and 80s. While the thick institutional tissues in Norrköping were formed and sustained unchallenged for over a century, the entrance of different types of economic actors in Linköping lead to a local culture where large and small firms can co-exist.

The entrepreneurial phenomenon was new to Linköping the in the 70s and 80s as well, but the situation in Linköping was so different. Especially the university was fostering an environment characterized by openness and experimentation. [...] This entrepreneurial spirit is pretty much alive today. (entrepreneur Linköping A)

A major difference between Linköping and Norrköping is the importance of non-pecuniary rewards in the local culture influencing the nature of entrepreneurial activities. In Linköping, the importance of the non-pecuniary reward system was relatively greater implying that these elements of the local culture are temporarily persistent despite changes in the economic conditions.

It seems that entrepreneurs fitted very well in the engineering culture of Linköping right from the beginning. In the 80s, entrepreneurs were celebrated like rock stars or astronauts. Here, we dare to build our heroes. (entrepreneur Linköping B)

Such differences in social status meant also differences in the demand power of entrepreneurs. In both cities, the political actors reacted to entrepreneurial activities within their cities. In that sense,

a critical entrepreneurial mass was needed in order for the political actors to become aware. While the municipality in Linköping early on wanted to provide a supportive environment for the entrepreneurs, the municipality in Norrköping was much more reserved. This shows that cultures tend to change more slowly than industries. Culture remains in a location even after the industrial structure to which it belonged has disappeared (Wyrwich and Fritsch, 2014; Hassink, 2005).

6. Conclusion

The study of two cities in Sweden revealed the factors leading to the emergence of distinct local cultures and how entrepreneurial activities in newly emerging industries continue to be affected by this local culture.

The study highlights four key factors which are instrumental for the formation of a local culture: initial conditions, characteristics of key players, network activities and composition of newcomers. The initial economic conditions of a place are of immense importance which key players might be attracted. The characteristics of the key players have a strong impact which culture will be formed and the subsequent network activities helped to strengthen the emerging local culture. The composition of newcomers is especially interesting in the formation of culture. While both cities were growing rapidly through in-movers, admittedly in different periods of time, the composition of newcomers can potentially strengthen or weaken the existing culture. The case of Norrköping supports the understanding that the local culture originates as a specific sectorial culture which eventually transcends the sectorial boundaries (Aoyama, 2009). The case of Linköping however showed how local culture emerged in a rural setting with a weak industrial legacy.

The study also shows how local culture persists over generation and influences subsequent local economic activities. Culture should be seen as an entity which is constantly evolving and changing; admittedly this change is a slow process over generations. A striking difference was that entrepreneurship was new to both cities, but the emergence and survival of two distinct local cultures led to two different attitudes about entrepreneurship. The close proximity to a conducive entrepreneurship culture in Linköping weakened the effect of the local culture in Norrköping.

The findings give some implication about the level of analysis. Early studies on culture in general and entrepreneurial culture more specifically have concentrated on the national level (Huisman, 1985; Mueller and Thomas, 2001), while lately the regional level received much attention. Hence, a more nuanced picture of different level of culture is now provided. However, the analysis of the two cities shows that large differences in culture can be found within one region. This suggests that the local level should receive more attention. The origin of the local culture from their particular industrial legacies weakens the argument of a shared culture in locations within close geographical proximity. If industry-specific characteristics influence the characteristics of the

local culture, it can be argued that places with similar industrial legacies within one country are closer in terms of their culture than with their immediate surroundings.

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Tables

Table 1: Overview of the two cities

Location	Population development	Traditional economic base in the 1950s	Economic base in 2010	Current largest private employers
Linköping	1950-1990: +46% 1990-2010: +20%	SAAB AB (Computers, aviation), NAF (chemicals)	IT cluster, aviation cluster	SAAB AB (Defence industry) Ericsson AB (Communication Technology)
Norrköping	1950-1990: +09% 1990-2010: +08%	Electro-technology, paper industry	Cargo handling, manufacturing industries	Billerud-Korsnäs AB, Holmen Paper AB (Both paper and bulk manufacturer)
Sweden average	1950-1990: +22% 1990-2010: +10%	Manufacturing industry, forest industry, steel and mining	Advanced industry (Ericsson, Volvo, Sandvik, Alfa Laval)	-

Table 2: Number of blue-collar workers per 1000 inhabitants

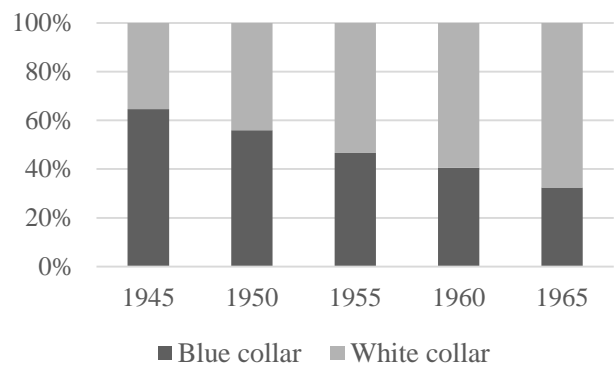
Year	Norrköping	Linköping	Stockholm
1915	186	65	93
1930	162	89	94
1945	166	119	96
1960	125	105	67
1968	109	98	58

Source: Linköpings Historia

Table 3: Key factors for the formation of local culture

	Local culture non-conducive to entrepreneurship	Local culture conducive to entrepreneurship
<i>Initial conditions</i>	Early industrialization	Late industrialization
<i>Characteristics of key players</i>	Trade union	Technology-based private company
<i>Networking activities</i>	Preserving existing structures: Thick institutional tissues on the local and national level	Creation of new local structures: Expansion of the technology-based network
<i>Composition of newcomers</i>	Intra-regional movements of people	Inter-regional movements of people

Figures



Note: This figure does not include employees of the computer division; source: SAAB AB

Figure 1: Share of employees at SAAB divided by blue and white collars