

Stuck in the Middle? – A Case Study of the Underutilised Potential in Peripheral Regions in Developed Countries in the Age of Globalisation

Cali Nuur

Department of Industrial Economics and Management
Royal Institute of Technology
Stockholm, Sweden
cali.nuur@indek.kth.se

Staffan Laestadius

Department of Industrial Economics and Management
Royal Institute of Technology
Stockholm, Sweden
staffan.laestadius@indek.kth.se

Abstract

This article discusses the evolution of a call-centre cluster in the context of regional development policy towards peripheral regions in developed nations. Based on a case study of call-centre clustering in a peripheral region in Sweden we suggest that although threatened by global pressure, there is an underutilised potential in peripheral regions in the industrialised countries.

1.0 Introduction

This is the story of a small cluster in a sparsely populated area, far from the well-known and intensively analysed clusters in Silicon Valley or Italy. It is about the municipality of Ljusdal, which at first glance looks like any other municipality struggling with industrial transformation and global pressures. Ljusdal has historically relied on forestry as its main source of living, but current statistics show a discouraging picture that epitomises a municipality facing the backlash of transformation. For the last four decades, the number of people domiciled in the municipality has decreased by 12% annually. Unemployment figures are high, nearly 10% in 2005. The number of people with more than upper secondary education is less than 5%. However, the similarity with other peripheral municipalities ends here: Although hitherto not enough to compensate for the decline of traditional industries, a cluster of call-centre firms and supporting institutions has emerged. In 2005 Ljusdal, with 18,000 inhabitants, was home to nearly 40 companies that conduct call-centre activities and employ more than 10% of the working population, thus making Ljusdal the most call-centre-dense region in Sweden. In addition, many of the firms in Ljusdal did not locate as a result of top-down government policy but are home grown. What were the mechanisms behind the evolution of this cluster?

Call centres came to the attention of scholars after they emerged in the 1970s; their creation arose out of the development of digital switching techniques and computer communication. It has been claimed that they contributed to deskilled and socially isolated work. Consequently it has been argued that they tend to locate on the periphery because of their tendency to offer employment conditions that are not acceptable in more dynamic regions. Government development agencies have, however, viewed call centres as potential employers in peripheral regions. In a Swedish government hearing on regional development it was alleged that four of five companies receiving state or regional subsidies to establish a presence in remote areas were firms in the call-centre industry (SOU, 1999).

But call centres, as identified above, are far from the only ways of exploiting the potential created by information and communications technology during recent decades. As summarized by Castells (1999), and in a more provocative way by Friedman (2005), it may be argued that they indicate the end of the beginning of distributed industrial and professional activities. For example, Swedish hospitals connect themselves globally for instant and distributed X-ray analyses in the night when Swedish doctors are asleep. Qualified work can be distributed globally, thus making the location of Ljusdal neither more distant nor closer than any other place in the world. Is there an underutilised potential in peripheral regions that could counter global pressure? Will the Ljusdal call-centre industry benefit from globalisation, or will the small town of Ljusdal be squeezed between the dynamic Stockholm region on the one hand and Bangalore (India) or even Tallinn (Estonia) on the other?

This paper, based on a single Swedish case, discusses the underutilised potential of peripheral regions in industrialised nations. In it we analyse the mechanisms behind the emergence of a call-centre cluster in a peripheral region. Discussing the mechanisms and dynamics of this call-centre cluster in this peripheral municipality would shed some light on the relationship between local economic development and human capital formation in the age of globalisation. Undoubtedly, globalisation is creating a new economic reality and posing challenges on policy measures on improving the competitiveness of peripheral regions in industrialised nations. Previously Swedish development policies towards peripheral regions have been characterised by a one-size-fits-all approach. However, in recent years we are witnessing the promotion of endogenous approaches. Thus, this paper also examines the policy dimension to regional development and argues that policy makers and regional development agencies have taken note of the relationship between the global nature of business activities and the importance of locally acquired dynamics. The relative successes of global hotspots (e.g., Silicon Valley, the Third Italy) have provided inspiration to regional development policy bodies to explore alternative ways to development. Hitherto, territorial concepts such as clusters (Porter, 1990, 1998, 2000), regional innovation systems (Lundvall, 1992), industrial districts (Marshall, 1890/1920), and science parks (Saxenian, 1994) have become policy instruments to offset the pressure of globalisation. Will these models have any relevance in the decades to come?

The data in this paper are based on 32 interviews (lasting one to two hours each) with 27 managers conducted in the years from 2001 to 2004. In addition to the interviews, we were granted access to the floors and communication desks to observe activities within the companies.

Apart from this introduction, the paper consists of three sections. In section 2.0 we place the case study in the context of a brief discussion of Swedish regional development in peripheral regions because call-centre locations appear to give potency to the enticement schemes that have characterised regional development policies in the past. In recent years, influencing the location of call centres in peripheral regions to offset the disappearance of manufacturers has figured in the debate on regional development. Some claim that call centres are attracted to peripheral regions because of their ability to offer employment conditions that could be unacceptable in other parts of the country (e.g., Von Otter and Sandberg, 2001; Melin, 2003). In section 3.0, we introduce the bottom-up approach, which concerns the evolution of the call-centre cluster in Ljusdal. In this section we trace the roots of the cluster and describe the variations in the activities of the firms in Ljusdal. In section 4.0, we summarise our findings and reflect on the challenges confronting marginal regions in the age of globalisation.

2.0 Swedish Regional Development

The call-centre cluster in Ljusdal has emerged at a time when regional development in general and in peripheral regions in particular is going through challenges in finding strategies to offset the consequences of a borderless economy that is characterised by interconnections and interdependencies (Castells, 1999; Porter, 1998). Although some might argue that global sourcing of production units and cross-border trading have been occurring for decades (e.g., Laestadius, 1980), the deepening impacts of faster transcontinental flows of capital, outsourcing of goods and services and the patterns of global economic integration of the 1990s (Castells, 1999) is having profound effects on peripheral regions in industrialised nations. As Porter (1990) wrote, the paradox of globalisation lies in the fact that it is nurtured by local dynamism of knowledge creation and proliferation that is facilitated by institutional exchanges between industry and policy units (e.g., Audretsch, 2000; Lundvall, 1992; Porter, 1998; Saxenian, 1994; Storper, 2000).

Yet globalisation has enhanced unevenness in regional economic performance, including in more developed countries such as Sweden. Recent regional economic indicators point to a strong economic performance for urbanised regions with a knowledge creation infrastructure such as universities. During the past decades, these regions have witnessed the virtuous effects of population growth and lower rates of unemployment. At the other end of the spectrum we find regions that previously were the backbone of the Swedish economy but that have undergone industrial restructuring brought about by technological and market forces. Unlike dynamic urban regions, these peripheral regions lack the prerequisites for modern business development, such as the presence of institutions of higher education. These regions are rural areas, mainly in the hinterland in the north of the country and the coastal towns in the north, which in the past were dominated by firms in the traditional sectors of forestry and manufacturing. These one-time core regions are today witnessing the deleterious repercussions of industrial transformation and globalisation.

Swedish governments have to a large extent used a Keynesian policy to promote regional convergence, a common approach across the developed world in the postwar years. Fuelled by unprecedented growth due to the reconstruction of industry, availability of statistical data, and urbanisation, many governments devised measures to stimulate regional development (Amos, 1988; Polèse, 1999).

In the Swedish context, during the postwar years almost every region received a share of the cake that followed the economic boom of the 1940s. But there were signs of dire times on the horizon. Technological innovations in production were transforming the division of labour in the traditional industries (forestry and mining). Thousands of employees were laid off as companies invested in machines that could outperform people. This industrial restructuring saw the consolidation of the “Swedish model.” On the one hand, this model stimulated the competitiveness of relatively large firms, mainly in the export sector by providing them with a series of measures including labour market development schemes to offset cyclical dynamics, and on the other hand encouraged the migration of labour from the affected regions. Evidently these measures failed to address regional disparities and as such were complemented with a uniform top-down approach that was based on enticement schemes, such as giving large manufacturing firms subsidies and investments in infrastructure and location of government agencies in peripheral regions. This policy served two purposes. First, it offset the effects of industrial restructuring in peripheral regions. Such a measure was believed to deter inhabitants in peripheral regions to migrate to urbanised centres. Second, it minimised the risk of inflation in larger towns. Unlike the forestry and mining industry, the manufacturing industry, much of it located in the middle and southern parts of the country, was undergoing an economic boom. The threat of wage increases was deemed to reduce the competitiveness of Swedish industry (Bergström, 1998; Engstrand, 2003).

The enticement schemes in peripheral regions came under challenge in the 1990s as a consequence of globalisation. Political factors such as the end of the cold war and economic opportunities such as the opening of new production sites and new markets led to the closure of still more firms in the manufacturing industry. Most of the towns in peripheral regions in Sweden depended on single employers as their source of income. The news was dominated by reports of layoffs. The result of this crisis was a rethinking of regional development strategies. For the first time the use of the word “regionalpolitik” (regional policy) was abandoned in favour of “regional utvecklingspolitik” (regional development policy). One major implication of this was the axing of the top-down approach, which had the goal of inducing regional parities. This new approach called for setting in motion supporting mechanisms that promoted endogenous local or regional initiatives. Consequently, regional development policy became driven by such concepts as “clusters,” “industrial districts,” “networking,” and “learning,” which emerged in the debate.

The sources of inspiration for this new approach were many. First, Anna L. Saxenian’s book *Regional Advantage: Culture and Competition in Silicon Valley and Route 128* (1994) provided insight into the success of the Silicon Valley. Policy units took note of her thesis on the vitality of dynamic horizontal networks that created a receptive atmosphere for nurturing business development. Second, case studies on Italian industrial districts (Becattini, 1990; Brusco, 1986) and, closer to home, on the Gnosjö region (Wigren, 2003; Johansson, 2002) revealed the importance of social cohesion in promoting development. The business development discourse included the concept of the *Gnosjöanda* (the Gnosjö spirit) of entrepreneurship development (in the south) and its presence or absence in particular regions. Peripheral regions in Sweden were seen as victims of a *Bruksanda* (the spirit of expecting everything from a single village employer) and as needing to develop mechanisms to promote the evolution of social capital, i.e.,

networks, norms, and trust (Putman, 1993). To this end, a white paper titled *Regional Growth Agreements* was published by the government in 1998. It explicitly mandated that regions engage in partnerships to promote the emergence of new industry and an overhaul of existing strategies. Further, the white paper called for the evolution of endogenous initiatives to support knowledge creation and diffusion.

This new approach to regional development coincided with a period in which the debate centred on the benefits of the digital economy. At the national, regional, and local levels there was an air of optimism regarding the benefits of the digital economy. The Internet was viewed as a vehicle of development that would facilitate knowledge building and contribute to the emergence of new enterprises in locations that harboured manufacturing. This view was echoed in a government bill that vowed to make Sweden an “information society,” since the Internet would interbreed and dominate all walks of industrial life (Government bill, 1999/2000). In the regional development debate, high hopes were raised concerning the Internet’s ability to remove the liabilities of being located in peripheral areas, such as lack of access to higher education and human resource development. The Internet was to become the platform that would facilitate the transition from the “old” economy toward a “new” that would be characterised by knowledge content (SOU, 2000).

During this period, a major concept that entered the industrial as well as regional development debate was that of the *cluster*, which Porter (1990) defined as “Geographically proximate groups of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities.” However, although Porter gave the concept power, the economic thought governing clustering of economic activities dates back to the works of Alfred Marshall a century earlier when he provided the philosophical undercurrents to agglomeration economies. Porter (1990, 1998, and 2000) incorporated inputs from supporting organisations, e.g., institutions of higher education, formal and informal business organisations, and community-based organisations, as elements that could provide competitive advantages.

By and large, the cluster concept reinforces the vitality of the economies of proximity (e.g., learning, innovation, and knowledge formation) and has been extensively discussed in the literature on location (Amin and Thrift, 1995; Cooke, 2002; Enright, 1996; Malmberg, 1998; Malmberg, Solvell, and Zander, 1996; Porter, 1990, 1998, 2000). The literature on the dynamics of spatial competition varies. Some authors focus on the institutional aspect, including the learning mechanisms that location provides (Asheim, 1996, 2000; Cooke, 2002), while others focus on social cohesion in fostering important institutional linkages (Amin and Thrift, 1995; Becattini, 1990). Still others discuss it as an instrument to develop regions (Brandt, 2001; Brown, 2000; Feser, 1998; O’Malley and Van Egeraat, 2000; Raines, 2001; Rosenfeld, 1997; Sadler, 2004; Waits, 2000).

In respect to regional development, cluster-based initiatives were undertaken with the help of manuals and templates (e.g., cluster navigator.com). Several studies on the advantages and shortcomings of cluster initiatives have since emerged. For instance, Waits (2000) argues that a cluster-based strategy provides regional policy leaders with instruments to identify which economic sector to promote. In an extensive study of several cluster initiatives in seven European countries, O’Malley and Van Egeraat (2000) identify two different strategies. On the one

hand, cluster initiatives complemented existing development policy, while on the other hand such initiatives were developed from scratch. Brandt (2001) and Brown (2000) discuss the bottom-up and top-down strategies in the evolution of cluster initiatives. O'Malley and Van Egeraat (2000) examine productivity rates of cluster-supported industries and traditional industries and concluded there was no evidence to support the notion that cluster initiatives influence productivity rates. In Sweden four kinds of cluster initiatives were identified (Lundequist & Power, 2002). These were industry induced (e.g., the aluminium industry), policy induced (e.g., biotechnology), futuristic projects (e.g., telecom and the rock music industry), and ad hoc clusters (e.g., automobile testing facilities up north).

Although becoming a key feature of the regional development debate, the cluster concept has also been criticised for having become a policy panacea instead of an academic concept (cf. Feser, 1998; Malmberg, 2002; Martin and Sunley, 2003). Martin and Sunley (2003) have the strongest criticisms. These include pointing out the problems of defining clusters, the difficulties in interpreting clusters in policy circles for industry promotion, and the lack of empirical foundations on which to base the concept. Although Porter (1998, 2000) describes the social "glue" that binds actors' in a cluster Cooke (2002) argues that the vitality of social relationships underlying cluster formation is usually given a back seat in the discussions on promoting cluster based initiatives through policy.

2.1 Call Centres

The evolution of call-centre activities in the peripheral municipality of Ljusdal may be analysed against the background of cluster initiatives that have characterised regional economic development from the 1990s onward. Although some of the issues concerning call centres, such as their functional role of directing calls and their influence on distance work, was discussed as early as the 1980s (Elling and Parmasund, 1984; Engström, Paavanonen and Sahlberg, 1985; Gunnarsson, Vedel, and Ipsen, 1983; Lagerlöf, 1985), call centres in their current forms are a relatively new phenomenon on the economic landscape in many nations. When they arrived in Europe and Sweden in the 1990s, these centres were described as *in-house/out-house customer service centres*. Despite arriving in Europe two decades ago, there is no concise definition of what constitutes a call centre. According to the Swedish IT Commission (SOU, 1999), *call centre* is a broad term that includes reservations centres, help desks, and customer service centres, regardless of how they are organised or what types of transactions they handle. Such centres are also called customer care centres, cost centres, relationship centres, distance support, help desk customer relationship centres, contact centres, or telemarketing centres (SOU, 1999). In the past, the main activities that call centres performed was making outbound calls to recruit or maintain customers. The instruments at their disposal included the telephone, fax, and telex. As a result of ICT (Information and Communication Technology) diffusion, today's call centres also offer web-based solutions and inbound telephone activities.

Call centres have also become the source of significant criticisms. Mass media and trade unions have asserted that call centres in Sweden are characterised by poor working conditions (cf. HTF, 2000; Aftonbaldet, 2002). Researchers in behavioural sciences assert that the physical conveyor belt of traditional industry is manifested in a mental conveyor belt in call centres (cf. Melin, 2003; Von Otter

and Sandberg, 2001). Taylor and Bain (1999) suggest, that the criticisms of the working conditions at call centres have resulted in companies adopting titles such as “customer service sector” and “customer satisfaction” instead of “Call Centres”. Taylor and Bain (1999) define a call centre as “a dedicated operation in which computer-utilising employees receive inbound, or make outbound, telephone calls, with those calls processed and controlled either by an Automatic Call Distribution (ACD) or predictive dialling system.” However, the pace of globalisation poses challenges to this definition, as more and more sophisticated services are outsourced (Amiti and Shang-Ji, 2005; Wymbs, 2000).

Despite the criticisms, call centres appear to shoulder the role of becoming significant employers across peripheral regions in the developed world: Breathnach (2000) reports call centres as a vital emerging sector in Ireland because of a well-developed ICT and education infrastructure. Global giants like IBM, Dell, and Compaq manage their customer relationships through outsourced outlets. The Dublin region attracted 90% of the call centres that cater to customers in many different countries (using the native languages). In the United Kingdom, Fernie and Metcalf (1999) report the presence of 7,000 call centres that employ 200,000 agents, representing over 1% of the total workforce in the country.

Richardson and Belt (2001) discuss the role of call centres as important employers in peripheral regions in the United Kingdom. Drawing on two case studies in the Northeast of England and the Highlands and Islands of Scotland, they found that call centres had significantly contributed to job creation. A number of factors, including the liberalisation of the telecommunications industry, the availability of a cheap labour pool, training infrastructure financed by public funds, and subsidized property have combined to employ nearly 13,500 people in 1999 in the Northeast and 4,000 in the Highlands and Islands.

In their extensive study of the development of industrial relations, Taylor and Bain (1999) report that call-centre firms are clustered around the cities of Glasgow, Leeds, and Newcastle/Sunderland. In Scotland there are 119 call centres and the sector employs 16,000 people. Of the 119 call centres in Scotland, it was found that 36.9% served businesses in the financial sector. Only 4% of the firms operated in the telemarketing industry, where outbound calls are made. Sixty-nine percent of those who worked at call centres in Scotland were below the age of 35, and women workers predominated (67%).

In Australia, Barrett (2001) reports call centres being the fastest growing sector of the Australian economy. At the end of 2000, 4,000 Australian outsourced call centres serving 1,500 companies employed nearly 225,000 people. In contrast to the UK call centres, which tend to be located in lagging regions, the Australian ones were mainly clustered in the cities of Melbourne and Sydney.

Available statistics in Sweden are based on a broader definition of what a call centre is. Two government agencies have commissioned studies to identify the number of call centres in Sweden: Nutek, the Swedish Agency for Economic and Regional Growth, which promotes the development of firms, and Invest in Sweden, a semiautonomous official agency that sponsors foreign investments in Sweden. Nutek identified 538 call centres, where 10,094 employees worked full time. The Invest in Sweden study focused on outsourced customer service outlets with the aim of finding the number of seats or number of people employed. This study identified 110 outsourced outlets that employed 7,051 people (SOU, 1999;

NUTEK, 2000). Stoltz (2004) identified the presence of 40 call centres in the municipality of Ljusdal, which together employ 10.3% of the total labour force.

3.0 The Mechanisms that Led to the Evolution of the Call-Centre Cluster in Ljusdal

Neither the roots of the Ljusdal cluster nor its development were planned as a policy initiative. Its seeds were sown when regional development bodies discarded the promotion of the service industry as potentially playing a role in regional development. The birth of the cluster can be traced to an entrepreneur, Bengt Wigart, who in 1936 established a company, Byggfakta (Construction facts) in Stockholm. Employing less than a dozen employees he sold information about the credit-worthiness of companies to business customers mainly in the construction industry. In the late 1960s, Wigart expanded his business operations to include conducting limited market research in the field of construction. He provided information on profit and loss accounts and on-demand statistics and account statements to potential contractors, sub-constructors, and public agencies. As a result of the urbanisation of the sixties and seventies, Byggfakta established a reputation in the construction sector throughout the country but was facing two potential problems. First was a high turnover rate among staff members. Recruiting and, more importantly, maintaining staff members that were willing to work at his firm were becoming difficult because of job opportunities in other sectors. Second were the high labour and overhead costs in the Stockholm area.

Wigart bought a winter cottage close to Ljusdal and soon gathered information on the general business climate and cost structure of the municipality. He shared his concerns with the chairman of the local chamber of commerce and the leader of the council. In 1971 after further contacts with the local chamber of commerce, he announced plans to move operations to Ljusdal. Thirteen of his 18 employees decided to follow the firm to Ljusdal. The next challenge for Wigart was finding the necessary funds to cover transportation and overall costs of establishing a business in a new location. But subsidies were only available to large and medium-sized firms in the manufacturing sector. After exhausting all possibilities to find the funds, the local chamber of commerce in Ljusdal, whose members Wigart had met during his winter holidays and shared his plans with, mobilised its members to help Wigart. A convoy of 20 cars, with nearly 40 men and women from Ljusdal, took care of the transportation of the company from Stockholm to Ljusdal.

In May 1971, the company was established in Ljusdal. Its main business continued to be conducting marketing research for construction firms. However, in Ljusdal the manager decided to offer his customers a complete package, which included statistical materials about the construction industry. For this purpose, the firm started to publish a monthly statistical magazine that was distributed to firms, individuals, and municipal and regional authorities.

Even though Byggfakta was established in Ljusdal in the early 1970s, it took nearly two decades before the cluster began to see the daylight in this peripheral municipality. The proliferation of ICT provided potential entrepreneurs with a plethora of opportunities, including database modules. To business customers of firms such as Byggfakta, it offered the opportunity to access information online by paying subscriptions. The role Byggfakta played as an engine enterprise in the call-centre cluster formation process can hardly be overestimated. Byggfakta was the

direct role model for many of the companies established in the first phase of the expansion of the Ljusdal cluster. The business idea of Byggfakta was to buy and sell processed and repackaged information between actors in the construction sector of the economy. However, in the end some of the employees at Byggfakta discovered a need for gathering, processing, and selling information also in other sectors of the economy. As discussed earlier, cluster theories explain the economies of proximity including the ability of the local milieu in facilitating learning, innovation, and entrepreneurship (Becattini, 1990; Cooke, 2002; Johansson, 2002; Malmberg, 1998; Maskell and Malmberg, 1999; Porter, 1990, 1998, 2000; Storper, 1995). Marshall (1920), coining the phrase, "Knowledge is in the air," wrote that a major advantage of geographic proximity is the creation of a specialised labour market and the ability for proximate actors to realise business leads.

In this context the first start-up was in the same business domain as Byggfakta. There is a collegial dimension to the first start-up. In 1988 two former employees of Byggfakta, which then employed 230 people, established the company Informationsgruppen in the neighbouring municipality of Hudiksvall. The business idea of this firm was to create and maintain a database of construction industry businesses and company officials and to offer custom-made information on the construction industry.

After the birth of Informationsgruppen in Hudiksvall, the mental barriers for other people in the vicinity to become entrepreneurs were lowered. If a colleague or a neighbour started his or her own business, other people thought they could do it too. In the beginning of the 1990s, yet other employees from Byggfakta started their own call-centre businesses in such areas as education, real estate, media, and manufacturing. All of these companies buy and sell information within a special field. Byggfakta became an educational organisation serving as a model to other companies. There the entrepreneurs and some of the personnel of the newly founded companies got their first experience of how to do business and how to use the technology in the field of information brokering.

Globalisation came to Ljusdal in 1982. By then the general manager of Byggfakta was invited to the United States to discuss the possibility of licensing its business concept and to explore licensing agreements. After a few months of discussions, Byggfakta licensed the concept to a small Atlanta, Georgia, firm, which at that time employed 10 people. Ironically, 10 years later, this small firm grew into an international firm and acquired Byggfakta.

The early internationalisation of Byggfakta contributed to the marketing of Ljusdal as a place favourable for the location of call centres. In the middle of the 1990s, several international companies were attracted to Ljusdal. They were attracted by the quality of the labour force and saw a potential for business development. Today foreign companies own seven of the largest call-centre firms in Ljusdal.

3.1 Variations in the Activities of the Firms

The conventional wisdom on the activities of call centres is that of an unwelcome odd-hour caller who intrudes upon the relative peace of home. However, just a few of the firms in this study fit that description. While it is true that some of them are housed in large rooms where employees sit in front of computers and wear headsets hooked to a large switchboard, that description for most of them ends

there. Based on interviews with managers and on observation, we identified the presence of the following four types of firms in Ljusdal: (1) in-house call centres, (2) outsourced outlets, (3) information intermediaries, and telemarketers.

The first category of firms in Ljusdal is what is referred to as cost centres, reservation centres, or customer desks of organisations located outside Ljusdal. These are the firms whose activities have been discussed from the perspective of distance work (Elling and Parmasund, 1984; Engström et al., 1985; Gunnarsson et al., 1983; and Lägerlöf, 1985). In 2005 there were three of these firms in Ljusdal. Although in-house call centres are functionally part of the organisation, their geographic location can vary. Most of the employees do not need to physically interact with customers, and hence can be located outside the headquarters of the organisation. The employees in the in-house call centres have the same career opportunities as those who work in the other departments. An example of an in-house call centre in Ljusdal is the freight company DHL. Unlike other call centres, this is a customer centre, to which DHL's customers call for reservations, pricing, and tracking. The technology used by these kinds of firms includes a fast-tracking terminal and a management information system that provides managers with information on the number of calls, the people who called, and the employees attending the calls. The in-house call centres merge computing and telecommunication technology, allowing customers to communicate with employees who have instant access to information on product specifications, cost, and payment instructions.

The second category, which we shall henceforth label outsourced outlets, is the second largest group of firms in Ljusdal. These are the opposite of the in-house call centres described above and differ in respect to the ownership structure and who exercises control. Instead of functionally being part of an organisation like the in-house call centre, outsourced outlets in Ljusdal are independent firms that perform customer operations on behalf of other firms that relinquish control. By way of outsourcing agreements, organisations entrust call centres to perform customer relationship activities, such as measuring the performance of a marketing campaign, maintaining and developing customer relationships, participating in feedback from customers, identifying customer expectations, and providing technical support.

An example of an outsourced outlet in Ljusdal is the German-owned firm Twenty4help, which has Sweden's largest telephone operator Telia AB as its main customer. Through an outsourcing agreement, it has acquired a contract to provide Telia's customers with product information and technical support, as well as to answer queries from customers.

These groups of firms handle both outbound and inbound calls. Although maintaining their identity, they have to contend with the fact that other firms have transferred control to them and in that they have a lesser degree of freedom in expanding their business operations. For example, an outlet cannot expand its customer base, because doing so may jeopardise the outsourcer's strategic goals. The benefit to the outsourcer is that it can focus on its core business activities, while at the same time using another firm to perform some of its tasks. The technology used by the outsourced outlets includes the telephone and the Internet, where the customer interface includes semi-advanced solutions to queries. The employees of the outsourced outlets are employed on time-limited, often short-

term, contracts and they are expected to be flexible. Managers distribute calls to available agents by ACD. They also have an electronic surveillance monitor and a Remedy Action Request System (RARS). This system enables them to discharge all support activities (telephone calls, faxes, e-mail, and Internet services) via a common system and to provide optimal processing for each support case. The surveillance monitor records, among other data, the length of calls and gives managers control in determining efficiency.

The third category consists of firms that deal with gathering, storing, processing, and selling information. This category, referred to as information intermediaries, is the single largest group of firms in Ljusdal. One major difference between the information intermediaries and the other groups of firms in Ljusdal is the level of interaction the staff have with the customer. These firms, numbering around 15, employ nearly 500 people and provide differentiated services to businesses through a relationship that has been built on integration over the years. Most of the employees are employed on a continuing basis. Customers pay a subscription fee to gain access to the database with information. Based on the needs of the customer, most firms have a project team that search a variety of print and/or electronic sources for specific information. Depending on the agreement between the customer and the firm, they take the raw data and present only that which is pertinent to the client.

In Ljusdal, nearly all the information intermediaries cater to the needs of business actors. These business customers are often small- and medium-sized firms located all over the country. Public organisations are also customers to these firms. A typical information broker in Ljusdal is Byggfakta. The statistical material is brokered between buyers and sellers of products and services in the Swedish construction market. The largest service domain at Byggfakta is marketing research, which employs 30 people who have daily personal contacts via the telephone with 400 construction firms. Over the years, the firm has also established a unique network with Sweden's 289 municipalities. Its researchers have access to the firm's database with more than 175,000 construction projects, 150,000 companies, and 180,000 contacts. The company is involved with every stage of the construction life cycle from idea, planning, construction, and finish to maintenance and repair. The researchers read about 80 newspapers, call the municipalities (they offer permission for construction sites) and create a database with current information.

In addition to the above three categories, there are also other firms that conduct call-centre-related business in Ljusdal. These range from firms that have a flexible service domain, such as providing telemarketing services, to firms that perform outsourced operations or provide services catering to specific needs, such as health clubs and educational centres. It is probably these kinds of firms that fit into the description of call centres. Table summarises the differences and similarities between the activities of the firms, including the kinds of customers they serve, the service domain they provide, the turnover rate among the employees, and the tasks performed by the individual employee.

Table 1. Differences and similarities between the four categories of firms

| | <i>In-house call centres</i> | <i>Information intermediaries</i> | <i>Telemarketers</i> | <i>Outsourced outlets</i> |
|----------------|------------------------------|-----------------------------------|----------------------|---------------------------|
| Customer | Consumers | Business | Consumers | Consumers |
| Service domain | Standard | Differentiated | Standard | Standard |
| Turnover rates | Low | Low | High | High |
| Tasks | Routine | Nonroutine | Routine | Routine |

A major difference concerns the kind of customers served: The information intermediaries cater to business-to-business customers, while the in-house call centres, the telemarketing firms, and the outsourced outlets serve consumers. The fourth group, telemarketing firms, has flexible business concepts that are decided by their clients. The outsourced outlets also perform these kinds of activities in case a company wants to reach customers or promote and test new products. The technology that is often used is the telephone, although there are companies that also offer Internet-based solutions. A big portion of the work in the telemarketing companies and the outsourced outlets is rather repetitive, but one can also find variation in the tasks in the form of some kind of problem solving.

As described thus far Ljusdal appears to have succeeded in establishing a labour market, which was a key issue for Marshall (1890/1920) over a century ago. There are two other dimensions that cannot be overlooked in analysing the factors that led to the growth of this cluster. First is the underutilised capacity and skills potential in the periphery. Although formally low education among the inhabitants led to the evolution of this cluster and the subsequent availability of job creation, a dynamic process like the emergence of the call-centre cluster in Ljusdal can serve as a lever for competence enhancement, and call-centre locations may serve as the high end of the local labour market compared to what it can be in urban centres such as Stockholm. Second, the mirror image of this is that advanced/high competence/human capital formation can occur throughout the world and thus advance software production; advanced design that could compete on a global scale could be done in locations that could be described as peripheral.

The human resource development dimension of call centres cannot be neglected as the business ideas of the firms are embedded in the ability of the workforce to deal with customers. Most of the people employed in these firms are domiciled in the municipality. However, there are also some employees that commute from the nearby municipalities of Bollnäs and Hudiksvall. But what kind of people work at these firms? The national trade union that represents the call-centre workers in Sweden is the Salaried Employees Union, HTF. In a report released in December 2000, it reports that the employees of Swedish call centres are mainly women (80%) and that 45% of them are under 25 years of age.

The importance of formal education (codified knowledge) as a prerequisite to work in firms is often stressed. Very few of the employees in the call-centre cluster in Ljusdal have graduate degrees. But our observations and interviews reveal that there is a high concentration of tacit knowledge among the workers in many of the companies in the cluster. In particular, the information intermediaries have people who throughout the years have accumulated advanced knowledge. Most of those who work in the outsourced outlets are upper-secondary-school leavers who have

been given vocational training before they joined the firms. In addition, these employees have been given some training once they have been hired. The employees of in-house call centres are also mainly upper-secondary-school leavers. However, they differ from the above group in the sense that they are given permanent employment, which enables them to pursue a career in the firm.

The type of task that the individual employee is expected to carry out is reflected by the kind of call centre he or she works at. The employees of information intermediaries have varied tasks and are expected to solve problems in different projects. The customer often asks the firm to gather and deliver tailor-made information. In the other three groups, standardised tasks are dominating, like answering the phone and giving the details of products to customers. The answers to the customers are generally easily found in a manual. There are, however, exceptions. Some of the outsourced outlets have special departments that appear to manage rather sophisticated customer relationships, like computer support.

In the cluster, forms and periods of employment differ. Depending on the nature of the outsourcing agreement, employees at outsourced outlets are mainly offered short-term contracts that run parallel with the outsourcing agreement. On the other hand, the information intermediaries provide the "until further notice" employment form. For the employees of these two groups, the career developments differ. Because of the time-limited nature of outsourced agreements, there appears to be no career development plan for the employees of this group. The employees of information intermediaries, though, have a career path. Not surprisingly, they have employees who have worked at the same desk for several years. The employees of telemarketing firms are mainly young and they are provided a basic salary and a bonus depending on the number of sales. In most cases, they are part-time workers or students.

The information intermediaries and in-house call centres provide on-the-job training to their employees. Employees of outsourced outlets are required to complete a vocational training course in basic computer handling and customer management. However, according to the manager of one of these firms, it is essential that they have an "interest in the connections between information and telecommunications processes." Obviously, this is because they cater to customers in the telecommunications sector. Once employed, the employee is provided with numerous intensive in-house courses consisting of basic knowledge about operating systems, software, and hardware. Apart from correct and clear Swedish, people who seek employment are expected to have a good command of English, Finnish, and German. This can be attributed to the fact that most of the outsourced outlets even cater to consumers in the neighbouring Nordic countries.

Apart from courses in basic computing, employees of outsourced outlets and telemarketing firms are offered courses that include customer relationship management. The local labour office finances almost all of these courses and in most cases entrusts a call-centre firm to provide them. Because outsourcing agreements are time-limited and subject to review, and many outsourced outlets compete for projects, a rotation of labour is created. It is common that when one outsourced outlet receives an offer but does not have the capacity to fulfil it, for example, they entrust it to another outsourced outlet or borrow personnel. This is fully in line with the conventional understanding of the combination of cooperation and rivalry in the cluster economy as discussed by Porter (1998, 2000). Although our data are not clear on this point, we have the impression that this is more typical

for the telemarketers and outsourced outlets than for the other two groups (i.e., information intermediaries and in-house call centres).

Another difference revealed among the firms concerns employee turnover rates. This aspect of labour dynamics at the call centres appears to be related to the kind of firm and to the type of work that the employee carries out. Generally, the managers interviewed from the outsourced outlets report a higher turnover rate than do the information intermediaries. The reason could perhaps be that employees at outsourced outlets have low task variability with routine services often dictated by an outsourcing partner. These partners impose control mechanisms that may prevent the employee from using and developing his or her skills. In the case of the information intermediaries, however, it is the sales ability, and not least the relationship with the customer, that is the primary task. The employee has to understand and solve customers' problems.

At the telemarketing firms and the majority of the outsourced outlets, employees are mainly provided with manuals and are monitored and work in real time, with perhaps only a few minutes to rest. The information intermediaries, on the other hand, provide a white-collar environment in which workers are given computers and telephones. Most of the work is delegated and there is no monitoring equipment.

The development of the call-centre cluster in Ljusdal has also been enhanced by local policy that saw the potential; the local labour office finances basic courses in computing and customer relationship management. Entrusting incumbent call centres to give these courses, the labour office ensures the availability of trained employees. The ensuing labour rotation among firms is by far greater in the outsourced outlets and telemarketing firms than in the other groups of companies. This could depend on the nature of the agreements with business partners. According to the managers interviewed, the rotation is necessary. Because of the dynamic nature of the outsourcing contracts, labour rotation generates a lot of seasonal employment.

4.0 Concluding Discussions

The aim of this article was to discuss the evolution of a call-centre cluster in a peripheral municipality at a time when globalisation is posing challenges. In it we have briefly touched on some of the mechanisms that have come to characterise regional development policy. In summary this case illustrates the evolution of an organic cluster based on entrepreneurial development in a peripheral municipality. While policy initiatives were an important contributing factor to improve the competitiveness of the firms, the mechanisms that led to the evolution of the cluster were entrepreneurial. In the literature on location, it has often been recognised that an entrepreneur plays an important role in the development of agglomerations and clusters (cf. Malmberg, 1998; Porter, 1990). The development of the Ljusdal cluster of call centres did not occur in isolation, but was a process with a pattern of positive, coincident events. The diffusion of ICT and the arrival of the Internet played a major role in enhancing the positive development. Without these technological advances, new products, markets, and economic activities may not have emerged. The use of the telephone is still an important tool for most of the firms in Ljusdal, while many of them exchange information with their clients through the Internet by way of usernames and passwords. The arrival of the

Internet facilitated the whole new concept of gathering and selling information through subscriptions to databases. The entrepreneurial spin-offs from Byggfakta could be attributed to the Internet. Most of the managers of these new firms had been employed at Byggfakta, where they had obtained the knowledge to develop the same business idea but entered other branches.

Another factor that played a central role in the call centre is the development of tacit knowledge in the cluster. There was definitely no “knowledge in the air” designed for call-centre activity when Byggfakta moved from Stockholm to Ljusdal. One can say that one common feature of the firms in Ljusdal is the importance of personnel, because it is through the employees that the firms create value for the customer. Especially for the information intermediaries, the functional skills of their employees are the firms’ most important resource and employees perform a great variety of tasks. But as the years have passed, the air has turned thicker. Although knowledge about how to broker and handle information between different entities is especially dense around Byggfakta in the centre of the municipality, this kind of air has also reached public organisations like the school and the labour office, thus succeeding in creating a specialised labour market with managerial as well labour mobility between the firms. There is awareness on the part of the firms, and not least the supporting organisations, to view the agglomeration of call-centre firms in the municipality as a tool for development.

This case study has also revealed that cluster dynamics, i.e., the development of organic relationships, the knowledge building that resulted in the development of a business concept, and the learning and knowledge spillovers, could be achieved in peripheral regions. The mental barriers to becoming an entrepreneur got lower when it was possible to use a role model. The understanding of how the Ljusdal cluster is formed lies in the spread of the business idea and how this was adopted to new activities and markets. The rapid development can be explained by a demand gap when it comes to brokering different kinds of information. New information technology was the facilitator, rather than the instigator, that made this kind of service run smoothly. In the later phase of the cluster development process, it can be useful to talk about spillover and contextual knowledge effects as some of the researchers in the field do.

Although originating more than four decades ago, the call-centre cluster in Ljusdal developed during a period when globalisation and the Internet took off. Today when there are 57 million hits on Google for “call centre India,” the obvious question is whether there is any future for Ljusdal and, by extension, if there is any future for other Ljusdal-like municipalities in the periphery of the old industrialized countries. Is the organic growth of entrepreneurial competence, the creation of skills and capabilities, and the upgrading of services to information brokerage rather than simple telemarketing work and outsourced outlets in Ljusdal of any relevance when academically trained Asian workers offer advanced problem solving from Bangalore? Will the firms in Ljusdal be squeezed between the high-end and high-cost capabilities developed in core regions like Stockholm and the low-cost capabilities developed in Tallinn and Xian (China)? How can the primarily nonacademically trained staffs in Ljusdal ever compete with the talents of the new Tiger economies?

To approach this problem we have to start in the general formulation of the problem. All countries and regions are facing global disequilibria and thus

necessities to adjust due to one reason or another. Ljusdal is far from the only region facing a set of disadvantages in the global race; sometimes disadvantages are cost related, sometimes to human resources and sometimes to environment, and more. It may be argued that Ljusdal, after four decades of call-centre-related capability formation is in a much better situation than those regions in Sweden who failed totally to develop new industries and skills after the decline of primary resource extraction and related industrial activities.

The low formal education level in Ljusdal (and in many other peripheral parts of Sweden) may be a problem compared to many Asian (urban) competitors, many of which are several times larger than the Ljusdal firms. Whether that is a problem or not basically depends on the kind of contracts the Ljusdal call centres acquire. There is strong global competition in software production, but Ljusdal never entered that race, which necessitates academically trained programming competence. There still seems to be commercial niches related to language barriers. The combination of Swedish and English is a competitive advantage in the Swedish market and in international relations where Sweden plays a major role. Cultural and institutional knowledge on top of language skills is another capability-creating mechanism that contributes to a semi-sheltered economy for knowledge brokerage within a culturally and/or geographically bounded area. Also here the Swedish (and Scandinavian) market creates vast opportunities for a small cluster in the middle of Swedish culture and geography.

As is always the case when analysing competitiveness, parts of the conclusions cannot be generalized: What is a potential for Ljusdal due to its history of capability development is not at the same time attainable in all its details for many other regions in Sweden. They have to develop other parts of their resources as long as Ljusdal firms can manage to upgrade and compete.

The important message from our study is that it not only was but probably still is possible to stay competitive and to develop further competitiveness within certain limits. Strong global competition does not apply to all areas or to all tasks. Ljusdal can remain outside the fierce competition among Chinese, Romanian, and Indian programming firms and focus on niches those firms do not detect. In fact the national competition may be more of a problem, as Swedish medium-sized regions with more human resources enter the field. If Ljusdal succeeds in taking contracts in information brokerage, like specializing in distributed contact work for elderly people all over the country, competitiveness can probably be developed along well-worn paths. By substituting tacit knowledge for formal education and exploiting the relative attractiveness of nonurbanized regions in Sweden, firms in the peripheral areas can keep costs lower than is possible in the core regions while providing more competence and stability in human resources. In fact the world is not flat and there are still niches to exploit, even outside the global hot spots.

5.0 References

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