

CONSIDERATIONS ON THE IMPACT OF ICTS ON THE LOCATION AND STRUCTURE OF TWO BUSINESS SERVICES COMPANIES

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Abstract:

The structure and location of firms in today's world is influenced by, amongst other factors, information and communication technologies (ICTs) such as the Internet, Voice-over-IP telephony and others. We have presented the general conditions of the "New Economy" and its transformations which have permitted for new flexible-location strategies in deciding on the structure and location of a company. The last part of this article presents two translation companies and the way in which their use of ICTs facilitated flexible location strategies. Among the conclusions, we have highlighted the need for more investment in ICT on a micro-macro economic level.

Key words: location, ICT, New economy, information society, telework

JEL classification: R30, F23, L22, L84

1. Introduction

In the current period we see a transition to an economy which sees knowledge as a "commodity", a tradable good. We can notice a shift from an economy of production to a service offering economy.

An example of these transformations is the translation industry.

In the not so distant past, in order to translate a text, from its source into another language, we were obliged to pass through several stages:

Back in the 70s-80s, we had to go with the written or machine typed material to a translator's place who would translate it on a typing machine. Another trip to the translator would get us in the possession of that material. Later, in the 90s, the same operation would take place with a floppy disk as the medium for the text.

Currently, it is sufficient to email that document to the translator who will return it via the same method once the text has been translated.

Unlike this case, looking at the travel industry, we see that many agencies are losing their role due to the emergence of the Internet based "virtual-agencies", offering travel packages, tips, and photo or video testimonials. The real competitive advantage in this business will be in providing quality advice to clients. Only a true expert in a particular domain will get the attention of computer users, therefore also getting his money.

2. The New Economy, the Information Society and the Knowledge Economy

In Table 1 we wanted to present a variant of the comparison between the "Industrial society" and the "Information Society" as highlighted by Manuel Castells in 2004 in "Image of the Future Information Society" (Castells 2004).

Since it was published in 2004, we can say that it is both a work that looks at the surrounding reality of those years, while also being intended at urging the

implementation of a set of more humanizing features to the society Castells predicted the World was about to witness after 2000.

The Knowledge Economy is the counterpart of the information society in the realm of economics.

This designation was established by Peter Drucker in his book "The Age of Discontinuity; Guidelines to Our changing Society" (1969). Drucker attributed this name to American economist Fritz Machlup.

This definition is analyzed in the present century to "define the knowledge economy as production and services based on knowledge-intensive activities that contribute to an accelerated pace of technical and scientific advance, as well as rapid obsolescence."(Powell, Snellman 2004)

Table 1. Comparison between the Industrial and the Information societies

	Industrial Society	Information Society
Core	Steam engine (power)	Computer (memory, computation, control)
Basic Function	Replacement, amplification of physical labor	Replacement, amplification of mental labor
Production Power	Material productive power (increase in per capita production)	Information productive power (increase in optimal action-selection capabilities)
Products	Useful goods and services	Information, technology, knowledge
Leading Industries	Manufacturing industries (machinery industry, chemical industry)	Intellectual industries (information industry, knowledge industry)
National goal	GNW (gross national welfare)	GNS (gross national satisfaction)

Source: adapted from Castells, 2004: p.18

The main components of a knowledge-based economy include a greater focus on intellectual capacities compared to physical inputs or natural resources, combined with efforts to integrate improvements in each stage of production, from research and development through to the production line and all the way to the client interface. These changes are reflected in the increase in the formation of GDP (gross domestic product) of the "intangible" capital (Abramovitz, David 1996).

Member of the Romanian Academy of Sciences, Mihai Drăgănescu (2001) clarifies certain related terminology: "Often, the notions of knowledge-based or knowledge-driven economy are presented in the abbreviated form *knowledge economy*. However the notion of the New Economy is increasingly used. The New Economy is based on the creation of knowledge, the use of knowledge in business, particularly through innovation" (Draganescu 2001).

There are voices who oppose these categorical definitions of the phenomenon. Breton and Proulx (2002) believe that ideology is a central element in the informational paradigm and that papers which favor the new technologies are based on some ideological positions.

Other opinions state that technical progress in the sphere of communications is not enough to create an evolution in human social communication (Wolton 2000). He believes that the Internet brings no progress in terms of communication. This position is

interesting because Wolton goes into antithesis with most articles on the subject, who see the Internet as an open network, a tool for freedom and liberation (perhaps in the spirit of what we saw recently in the Middle East and North Africa, where the Internet and social networks like Facebook and Google - in particular - have enabled the strengthening of democratization movements).

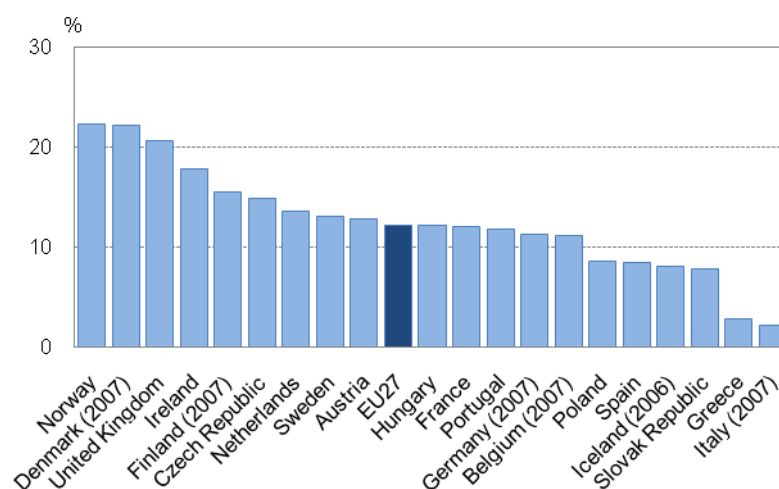
Badillo and Bourgeois refer to the *Knowledge Utopia* in a paper presented in 2003 at Cambridge. This article states that in the context of the Knowledge Society and Information (KSI) we have indeed seen an exponential progression of the information technology. However, this technology does not create further knowledge. Technology should not be the finality and the goal of our creative efforts.

3. A brief overview of several components of the Information Society (e-commerce, teleworking)

3.1 E-commerce

In the last two decades, *e-business* has grown from being a theoretical concept to an economic reality that cannot be ignored. OECD defines *e-business* as "automated business processes (both intra and inter-firm) over computer mediated networks" (OECD, 2001). This definition is useful because it shows clearly that e-business is a broader concept than *e-commerce* (which focuses only on commercial transactions between companies and customers - end-user or intermediary companies) and states that *e-business* includes both the internal processes of a company and the relationship with other commercial entities.

Fig. 1. Percentage of enterprises' total turnover from e-commerce



Source: OECD 2008-2009

In figure 1, we clearly see that the percentage of e-commerce in total turnover for companies in most European Union countries is on its way up and that, clearly, this is the future.

3.2 New forms of work organization. Teleworking

3.2.1 New forms of work organization

The new technologies encourage new types of firm organization and new ways of organizing work within these.

Virtual teams and departments are created, transformed and then abandoned once their existence is no longer required. Such teams are often temporary phenomena

created to undertake a specific task, to achieve a certain goal. Some very interesting examples appeared in business life and, then, in economic literature (Pink, 2001) - which include the idea of the existence of "free agents", a phenomenon which appeared in North America but is increasingly found in Europe. This is based directly on the better known free-lance worker phenomenon, self-employed workers who are now able to expand into a much wider geographical area and a larger number of parallel markets, due to the expansion of collaboration capabilities through new technologies.

Another significant development is the existence of a new type of enterprise, the so-called *fast company*, trying to strike a balance between the extremes represented by *free agents* and how traditional careers used to progress. As the name suggests, a *fast company*, tends to be constructed, transformed and closed in a rapid succession, depending on the situation in the market.

All this is possible thanks to technology, composed not only of computers, laptops and networks, but also of mobile phones, satellite phones, smartphones or tablet PCs.

A key trend in the development of the Information Society is the breaking down of barriers between people, places, roles and activities in which new technologies play a critical role.

This trend presents both opportunities and threats:

- Opportunities for creativity and new forms of expression, wealth and welfare on equal footing for all;
- Threats due to the elimination of most existing established structures; not just because of the difficulty of adapting to some new situations, but to a large number of unforeseen circumstances.

Another name under which we can find this type of fast adapting organization is "non-stop society" (Parliament of the United Kingdom, 2005), active 24 hours of 24, with a trend towards the availability of any service, at all times.

For this to be possible, some of the barriers which have been removed need to be partially reconstructed. Why? Because this type of society, with work carried out in shifts, throughout the day and night, has an impact on family life, and workers' health and sanity.

We need new types of limits in space and time, for example, between stages of work and family life, private life, community life, given today's society, one in which these activities are not completely separated as in previous.

Another version of this type of organization is that the operation indeed works on the basis of a "non-stop society," but that's because that firm has multiple offices in several time zones (see the case of one of the companies presented later in this article, Lingo24 Ltd.).

3.2.1 Telework and firm location

The definition provided by the European Social Partners, ETUC and UNICE for this phenomenon is as follows: "Telework is a form of organizing and/or performing work, using information technology, in the context of an employment contract/relationship, where work, which could also be performed at the employer's premises, is carried out away from those premises on a regular basis.."(ETUC 2002: art. 2).

We, generally, find this term in economic literature under the title of *teleworking*. In French – *Teletravail*, in UK English - *Telework*, the American version being *telecommuting*.

The Sectorial Social Dialogue Committee for

Telecommunications (SDC, 2001) highlights the potential benefits of this form of work. Table 2 presents some of these social and business objectives, as foreseen at that early date in the phenomenon.

Table 2. Social and business objectives can be achieved by using Telework

Objective	Business	Social
Better labor flexibility	*	
Employment opportunities in structurally disadvantaged regions and for people with disabilities		*
Employees given greater responsibility in planning and carrying out work tasks	*	
Humanization of work		*
A better balance between work and family life		*
Improving quality and productivity	*	
Greater job satisfaction	*	*

Source: SDC, 2001 (amended by author)

Telework is a growing phenomenon in all EU Member States. The average proportion of employees engaged in teleworking in the 27 EU Member States increased from about 5% in 2000 to 7% in 2005. In several countries the recorded growth rates are considerably higher. The largest proportion of telework was registered at the time of the EWCS 2005 study in the Czech Republic and Denmark, where about one in seven employees work out regularly from a distance. Above average rates were observed in the Benelux countries (Belgium, Netherlands and Luxembourg), the Nordic countries (including Norway) and some new EU member states. Romania was all but absent in witnessing significant increases in telework.

4. Case study – comparison between two translation companies

For the purpose of this article, we have looked at two organizations from the same industry – the translation business. Both have branches in Timisoara, Romania – the same city the author of this article works in. Some similarities exist in the way the two have used technology in achieving their goals, but there are numerous other elements which are different and we will try to highlight all this also under Conclusions. We have used both interviews with the two Managing Directors as well as materials they have generously sent for our perusal.

4.1 Lingo24

Lingo24 started back in 2001 with the setting up of an office in a basement room in Aberdeen, Scotland. Ten years later, Lingo24 has become the largest translation company in Scotland and one of the companies in the field with the fastest annual growth worldwide, with a turnover of over 7 million Euros.

The business is built as a network of full-time staff and freelance translators, scattered across the globe, who work mostly from home and communicate via the Internet, which is beneficial in several ways:

- Reducing operational costs
- Lowering the carbon footprint by not having built or leased office space and not having to travel long distances to reach the offices.
- Having employees who work in various countries, located in different time zones, Lingo24 was also able to set up a business structure that enables non-stop communication with customers, being available 24 hours a day.

In 2005, the firm launched the European center in Timisoara, Romania, which is now by far the largest office. Locating in Timisoara allowed the firm to keep costs low.

At the same time, this location would not have been possible if the Internet and telecommunications infrastructure in the area would not have been very good. As a result, Lingo24 was able to benefit from quality personnel, mostly graduates of institutions of higher education from the Timisoara area.

This pattern was then re-used in setting up in locations around the globe with similar characteristics – Panama (2008) and the Philippines (2011).

A turning point for Lingo24 was when the firm discovered the possibilities of search engine optimization (SEO) strategies as an inexpensive and highly effective online marketing tool. By investing modest sums to promote the site on the internet (via Google AdWords), Lingo24 obtained a privileged position at the top of the rankings for translation related queries. Also, with monthly periodicity, they tested the popularity of various keywords to see which ones bring the most visitors to the lingo24.com site.

After a period of exploration, Lingo24 discovered that there is a much smaller market competition in continental Europe for translation services - especially in Scandinavia and Germany, compared with that in the UK, the home market for the firm. Developing websites translated for those markets was the next step, and this paid off for the firm – they now have a good spread of clients in both the UK and mainland Europe for their services.

Lingo24 is a state of the art translation company utilizing the latest linguistic and internet technology to drive down costs, reduce turnaround times and improve the quality of translation. Lingo24's systems offer a very high level of automation and make full use of Web 2.0 technology. Customers can submit jobs automatically and receive a quote within minutes via email, or Instant Messenger with a link to an acceptance page. Customers can also upload files for quotation purposes if required.

Lingo24's phone system uses Voice over IP (VoIP) technology to route calls over the Internet.

Another clever use of technology is how Lingo24 adapted the client support system to suit client's particular needs. They developed a special portal for all of their clients, so every one of them just needs a web browser to access their Dedicated Ordering System (DOS) and automatically enjoy the following benefits:

- 24/7 customized client support
- An easy to use Quote and Order management system
- Technology support: they deploy the Translation Memory tool to achieve significant cost savings.
- Full reporting so client contact can manage and track spend by month/department/individual

4.2 Swiss Solutions SRL

The story of Swiss Solutions SRL began in Timisoara in August 2004 with a very small office.

At first services were targeted in particular towards individuals rather than businesses.

With many international corporations entering the various local markets around Timisoara, the firm transformed and, today, the company is 100% dedicated to corporations that need a translation partner.

Over the years, the company has grown steadily from two employees in 2004 to 34 in 2011. The number of employees is further growing as the company recently decided to expand the business internationally.

In addition to the HQ in Timisoara, the company has four branches (another office in Timisoara, one in Arad, one in Cluj and one in Bucharest – all cities in Romania). All offices and employees communicate via the Internet, but no VoIP phone solution is employed, as in the case of Lingo24.

With the development of the company, technology has become an essential part of its growth.

Increased technology use has brought a significant increase in employee productivity.

The Internet is the main source for daily doses of information and communication sessions both for translators and for representatives of the Sales and HR departments.

Daily communication with customers is done by project managers through the dedicated telephone and email solutions.

Starting in 2009, the company has set up an international business department tasked with finding new opportunities from customers worldwide.

Especially with the international clients, the Internet plays a key role. Potential customers are contacted by telephone or through Internet applications such as email or Skype.

Something that Lingo24 does not provide and we have seen in the case of Swiss Solutions is taking over the documents clients want to translate from their headquarters and returning translations back to their offices in printed/electronic format, thus eliminating travel costs. With Lingo24, all materials are received and sent back only via email.

Translations are delivered to customers in the format they request it, either on electronic support (CD/DVD) or on paper. Also, all projects are stored and maintained on the company servers for at least two years, so that customers can request a copy of their translation in this period of time.

Online Support is available through the website from Monday through Friday from 9 to 17, Romanian time. In the case of Lingo24, we have seen a true 24/7 operation.

5. Conclusions

Several conclusions can be drawn based on the brief analysis of the two companies:

Not all products and services are as easy to market and sell via the Internet. Services that can be easily standardized and delivered via technological means, such as translation services or content writing by freelance writers for online journals and blogs are more likely to be traded through Internet platforms. In certain areas or in certain countries, local business culture can partially inhibit online trade in services (see the case of Romania, as specified by the Swiss Solutions MD). Some companies and government organizations still prefer the translation service provider to provide the text translated and printed on paper.

Hence, we see some inhibiting results with effects over the economy and unnecessary delays affecting the ability of governments and companies of being competitive.

Ensuring the availability of employees and suppliers (freelancers) - highly qualified personnel is a key factor in the success of services of any kind, traded over the Internet. Being found through a search engine query does not generate customers in itself and can only produce short-term benefits. Customers thus acquired will be quickly disappointed by the quality of services provided.

Using Information and communication technologies (ICTs) permitted the two companies several aspects:

Reaching a global market (Lingo24 started in this direction since the beginning, Swiss Solutions shifts now towards it, understanding that technologies reduce to zero the distance to market, whether that market is Timisoara or Hong Kong). Any protectionist barriers imposed to eliminate foreign competition can be avoided, the

competitiveness criterion taking first spot before any other interest. Also, by reaching global markets, risks of the "crash" of one of the national markets (as we have recently seen with Greece or Ireland) are offset by attracting new customers in other geographic markets.

Obtaining the human resources quality, competitively. Often, companies based in Romania complain of lack of qualified personnel in their field. Through the Internet, a software company with Romanian capital, located in Timisoara, can hire the best software engineers from China, often at a lower cost than on the HR market of Romania. From here, we also see potential dangers for higher education graduates from a certain country, but they anyway have to sooner or later adapt to the competition in the provision of their services. At the same time, this opening is an opportunity for Romanian specialists well trained in various fields (software, translation, graphic design) who wish to collaborate with foreign firms, the Internet making entry barriers into full-time employment in those countries no longer applicable (as Romanian citizens are still barred by certain fellow EU member states).

Technology also permits a more flexible cost structure, which "translates" into more competitive rates and prices. Lingo24 started from a 100% virtual office structure, with employees who work from home, and it allowed them to provide the same quality but at lower rates. This has brought with it a large client portfolio.

Investments in technology can not compensate for a complete lack of attention to staff development and structure of the organization. Fortunately, both organizations we studied were able to properly manage all aspects of development.

6. Acknowledgements

This article is a result of the project POSDRU/88/1.5./S/55287 „Doctoral Programmed in Economics at European Knowledge Standards (DOESEC)”. This project is co-funded by the European Social Fund through The Sectorial Operational Programme for Human Resources Development 2007-2013, coordinated by The Bucharest Academy of Economic Studies in partnership with The West University of Timisoara.

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