Globalization and Outsourcing and Off Shoring

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ABSTRACT

Last decade, offshore outsourcing of software development from developed countries to undeveloped countries became very popular and caused an increase in the rate of unemployment of IT staff in developed countries as well as in the rate of employment of IT staff in undeveloped countries. While offshore outsourcing of work-intensive tasks in textile industry or furniture industry can be considered as colonization, based on profit and economy reasons, offshore outsourcing of high-tech jobs, such as those found in information technology and software development, caused huge changes on both sides. Although many of these changes and positive and negative trends have been established, supporters and opponents are very far from common agreement. Besides discussion about the positive and negative aspects of globalization and outsourcing, this paper offers insight in the outsourcing of the high-tech jobs, especially in the Nordic countries, supported by statistical data over the last decade, and tried to provide an answer to the question of who has the most interest in outsourcing and globalization.

Keywords: Globalization, Outsourcing, off shoring, Denmark

1. INTRODUCTION

Although distributed software development was implemented with little problem for many years inside of the same company or country, moving development to other countries introduces a number of issues, technical, cultural and social. Primary challenges, in the case of software development off shoring, are related to process management and the management of social and cultural differences.

Along with discussion about preconditions, and the positive and negative aspects of globalization, this paper offers insight in the outsourcing of the high-tech jobs in Nordic countries, especially in Denmark, and is supported by statistical data from last decade.

Globalization and outsourcing are words very often used in everyday language and usually associated to the communication and transport and logistics development that changes the current world into a global village. If this is measured by the time necessary to communicate from one part of the world to another, this is very true, especially in situations utilizing VoIP (Voice over Internet Protocol) messages that for free of charge transport voices, sounds, and pictures and videos. If it is measured by the current geopolitical situations, then this world’s borders are stronger than ever before.

2. GLOBALIZATION & OUTSOURCING

Globalization and outsourcing are often used to describe the current world as a high-tech global village. The development of communications, global networks, public and freely available information highways, transport and logistics makes many people believe that this world is a quite different than the world we knew yesterday. Marketing, through public media, constantly bombards us with information about globalization and outsourcing, and makes many people feel claustrophobic. According to news on the Internet and television, this planet has become so small and people so connected by common interests and common destiny that many of us are worried about our own roles in such a small world.

2.1 Globalization

“Globalization (or globalization) describes the process by which regional economies, societies, and cultures have become integrated through communication, transportation, and trade. The term is most closely associated with the term ‘economic globalization’: the integration of national economies into the international economy through trade, foreign direct investment, capital flows, migration, the spread of technology, and military presence. However, globalization is usually recognized as being driven by a combination of economic, technological, socio-cultural, political, and biological factors. The term can also refer to the transnational circulation of ideas, languages, or popular culture through acculturation. An aspect of the world that has gone through the process can be said to be globalized.”[1]

A common definition of globalization does not exist yet. The Levin Institute, The State University of New York,[2] describes it as follows: “Globalization is a process of interaction and integration among the people, companies, and governments of different nations, a process driven by international trade and investment and aided by information technology. This process has effects on the environment, on culture, on political systems, on economic development and prosperity, and on human physical well-being in societies around the world.”

There is not any doubt that globalization seriously affects environments and cultures, political systems and human beings all around the world. There is no doubt that globalization has become more and more aggressive. Since 1950, the world trade volume increased 20 times and from 1997 until 1999 the flow of foreign investment almost
Today, the main driving force behind globalization is a profit at any cost. Missing regulative or weak political systems in foreign countries, supported by widely spread corruption, provide as lot of free space for large international corporations and world-leading countries that unscrupulously use domestic resources. Low wages and terrible work conditions are ignored, as well as pollutions and serious environment damages.

The most important globalization organization is the World Trade Organization (WTO), and this international organization has 153 country members. The WTO’s primary task is to enable free trade across country or market borders. The WTO negotiates and signs contracts with governments and monitors so that contracts are correctly implemented.

“At its heart are the WTO agreements, negotiated and signed by the bulk of the world’s trading nations. These documents provide the legal ground rules for international commerce. They are essentially contracts, binding governments to keep their trade policies within agreed limits. Although negotiated and signed by governments, the goal is to help producers of goods and services, exporters, and importers conduct their business, while allowing governments to meet social and environmental objectives.” [3].

Another very important organization that supports globalization is the World Economic Forum, which is a privately owned organization. “The World Economic Forum is an independent international organization committed to improving the state of the world by engaging business, political, academic, and other leaders of society to shape global, regional, and industry agendas." [4]

Other important organizations that support globalization are the International Monetary Fund, World Bank, and G8.

The anti-globalization movement is represented by different groups that gather and protest whenever globalization groups organize a meeting. The World Social Forum (WSF) is an attempt to create a counterpart organization to the World Economic Forum.

“The World Social Forum is an open meeting place for reflective thinking, democratic debate of ideas, formulation of proposals, free exchange of experiences, and interlinking for effective action, by groups and movements of civil society that are opposed to neo-liberalism and to domination of the world by capitalism and any form of imperialism, and are committed to building a planetary society directed towards fruitful relationships among Humankind and between it and the Earth.” [5]

2.2 Outsourcing

Outsourcing is defined as moving a business function performed inside of an organization to a third-party business function provider. This means that a service or production that was accomplished inside an organization is now accomplished by another organization that is mandated to be a part of the same organization. Offshore outsourcing is defined as outsourcing outside of country borders. Outsourcing can be accomplished:

a. Inside of the country borders
b. Outside of the country borders

Outsourcing outside of the country’s borders is known as:

a. Near shoring outsourcing
b. Off shoring outsourcing

Near shoring outsourcing is outsourcing to nearby or neighboring countries. The advantages of this kind of outsourcing are found in economic, linguistic, political, or historical reasons [6], as well as the benefits provided by better and closer control and reducing transport expenses in the event that products and raw materials needs to be transported in both directions.

In the US, near shoring is considered outsourcing to Canada, Mexico, or Central America countries, for example. In Europe, near shoring countries are the Czech Republic, Slovakia, Ukraine, Hungary, Poland, White Russia, Russia, and the Baltic countries. [6]

Outsourcing to India and China is considered offshore Outsourcing. Offshore outsourcing or international outsourcing can be further divided into the following categories [7]:

a. Information Technology Outsourcing (ITO), outsourcing of computer- or Internet-related work
b. Business Process Outsourcing (BPO), outsourcing of back office tasks, such as payroll or accounting, and front office tasks like running call centers, customers support, technical support, etc. Services under this category include DTP, Multimedia, and Web design and development, for example
c. Offshore Software Development (Software R&D), outsourcing of software development to another country. India is the current leading country for this kind of outsourcing
d. Knowledge Process Outsourcing (KPO), is the outsourcing of knowledge-related work that requires high levels of knowledge and expertise, such as data analytics, research, or business operation support and management

Different authors offer other categories, and some divide outsourcing into the following categories:

- Technology Services Outsourcing
Outsourcing can also be divided according to service types [8], such as:

a. Professional – includes information technology support, accounting, purchasing, and other specialized services
b. Manufacturing – industry-specific, for example, manufacturing specific to the automobile industry
c. Process specific – for example, specific to a process of manufacturing or assembling a specific component
d. Operational – specific operational activity, such as, for example, machinery maintenance, cleaning, or property management

Danish Economic - go Erhvervsministeriet [9], describes following outsourcing categories:

- Core activities
- Help functions
- Research

All of the above mentioned categorizations are valid and author-specific. However, categories such as BPO and KPO seem to be more general than others. What is easily noticed is that globalization is mostly defined as an economic category.

Gartner Group categorized global cities into Tier I, Tier II, and Tier III based on the quality of infrastructure, connectivity, and human resources availability.[10] According to this categorization, the following cities are categorized to Tier I, which would be the best choices for outsourcing [10]:

- Europe – Bucharest, Dublin, Kiev, Moscow, and St. Petersburg
- North America – Greater Toronto Area, Ottawa, Montreal
- Asia – Bangalore, Yerevan, Mumbai, Ahmadabad, New Delhi, Hyderabad, Chennai, Pune, Indore, NOIDA, Gurgaon, Thiruvananthapuram, Haifa, Tel Aviv

It's very easy to determine that most of the cities from Tier I belong to India.

b. Preconditions for Outsourcing

Preconditions for outsourcing can be divided into the following categories:

1. Communications
2. Connections
3. Transport and logistics
4. Global financial institutions
5. Trade agreements
6. Political stability

The development of communication technologies, especially Internet and VoIP communication, reduced communication costs radically. Telephone or video conferencing has become very cheap or gratis as long as an Internet connection is available.

High-speed airplanes and trains and roads today connect all the necessary factories and stages of production all around the world, even in China, Vietnam, or India.

Transport uses huge vessels that can sail from the Far East to Europe or the US, any hour of any day, and companies that specialize in providing logistic enable easy movement of any kind of goods to or from Asia, Europe, Africa, Australia, and the Americas. Today, tracking goods is a standard service and at any time customers can receive information regarding how far their goods are from their final destination.

Huge banks and financial institutions guarantee the contracts. Electronic and paperless financial transactions enable the trade of goods even when these goods are still in transportation on vessels, trains, or cars.
The governments of developed countries joined world trade agreements and opened their domestic markets for investment and for establishing production plants or service units.

Stable political situations are very important preconditions that reduce investment risk.

c. Outsourcing Criticism

Criticism of outsourcing, primarily off shoring, is mostly connected to the huge number of jobs that moved from the more developed countries to countries under development. This criticism rose especially after the financial crisis in 2008, in regards to the huge increase in unemployment in Western countries. The long-term consequences of outsourcing are not yet known, but short-term effects are already visible. Offshore outsourcing affects:

1. Common people
2. Companies
3. National economies

i. Common People and Offshore Outsourcing

When a production line or research project is going to move from California to Florida, people who are dependent on that job become worried. Although labor mobility in the US is never an issue, moving from one place where salaries and real estate properties prices are very high to a place where they are significantly reduced becomes an important circumstance. Many people from California make this very simple calculation and are disappointed by the results. If you sell a house in California and buy a house in Florida, and production or the research project moves back to California in four or five years, you will not be able to buy the same house in California. Further calculations show how much money people will lose because of reduced wages.

Although in this case you can expect that some people will move along with the production or research project to Florida, would you expect in cases where the job moves from USA or Europe to India that the people will also move to India? Only the high management would have interest to move temporarily to India, but these people’s salaries will not be negatively affected. Rather, their salaries would be positively affected and they would probably get more benefits than in domestic countries.

But these people are just a few and in reality they do not create any new value or very rarely contribute positively to a company’s final result. They are there to get the high bonuses and credit when the company has a positive result. Many will get it even if that company introduces a profit loss. There will be always some explanation available.

What about the common people and their destinies? If they decide to move to India and accept the salary reduction, as well as the loss of all other benefits and protection in the workplace guaranteed by Labor Union membership in the US or Europe, what they can expect should they decide to return to the US or Europe after some time? Their savings will be worth nothing, and they will not be able to start a new business, buy a house, or obtain anything else that previously was a part of basic standard needs. What is most probable is some form of social help and a homeless shelter. Is it worth to sacrifice so much for such a “bright” future?

Management promises the common people there will be a new job structure when their current jobs disappear as a consequence of outsourcing. The people in the developed countries will perform job management and planning, and these jobs will be created by outsourcing almost automatically. But experience shows that the jobs that disappeared never returned and there were fewer new jobs. People in the Western World were unemployed with uncertain futures.

A company that outsources jobs to offshore countries increases profit, but in the long term loses knowledge as well as competent human resources.

The standards of the people in outsourcing countries who work in outsourcing companies improved significantly, and higher education became a goal for most of the people. Different companies using the same kind of labor create competition in outsourcing countries, and help human resources mobilize and focus on companies with higher salaries and better working conditions. The consequences of this are an increase in outsourcing expenses and reduction of company profit.

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What is a future of these companies in the Western World? These companies are losing educated and experienced personnel. Uncertainty and insecurity in any kind of position reduces the quality of work. People are moved from one job to another, and experienced people who were once the pillars of technical competence are fired or decide to find a job somewhere else.

If this trend continues, the source of educated people will be significantly reduced, because education institutions will reduce the number of spaces available for certain academics. Also the common people will choose an education that can provide a job and employment. From 2003 until 2006, investment in research in Denmark fell from 1,78% GNP to 1,65% GNP . [9]

An IT company invests in people and depends on workers’ basic competence and skills more than, for example, the textile industry, where most of the work is manual, and the quality and productivity significantly depends on the industrial machines and applied technology process.

By replacing key people in an IT industry, knowledge about a project can disappear at that time. In such cases it
could be a long and expensive process to get full control of that project again.

The current benefits for outsourcing companies looks very bright. There are plenty of educated people abroad, and their wages are very low compared to wages in Western Countries. Labor unions in the Western World are able to manage workplace conditions by threatening strikes and lawsuits against non-compliant companies; Labor unions in outsourcing countries are very weak.

Companies have become highly independent from governments, and should the government change domestic law in a way that does not fit a huge company’s interest, the company openly threatens to move their head office out of the country.

The governments of outsourcing countries are open and ready to protect outsourcing companies’ interests. Their reasons and interests are clear and understandable:

1. Employment of domestic labor
2. Moving technology to outsourcing countries
3. Moving organization as well as management
4. Creating experienced and competitive labor able to compete on the World Market
5. Increasing National Gross Product, as well as the common people’s standard

An important question is how long can this outsourcing trend continue? Will the short-sighted politics remain, bringing benefits to a company in the short term, but in the long term cause serious damages?

Human labor in developed countries should not be underestimated and often experienced people who become unemployed start their own businesses. If the foundation is huge enough, some will succeed in creating companies that have enough capital to compete in the market.

Domestic companies in off shoring countries get easy access to most important resources of any industry—human resources, technology, and organization. People who work for off shoring companies become an easy target for domestic companies, and can be attracted with benefits, salaries, and patriotism.

This means that the current trend will provide important advantages for domestic companies in off shoring countries providing for a possible future economic war.

It is not easy to find an answer to the question of what Western Countries will do in the future, just as it is difficult to determine how far governments and companies from off shoring countries are willing to go! Would it be solely an economic war, or a real war where high-tech weapons and soldiers’ robots spread massive destruction, significantly reduce the world’s population, and damage this world remediless?

I just know that the common people will suffer.

### iii. National Economy

Unemployment becomes a huge challenge for national economy and national budget planning. Budget income from labor markets experienced a drastic reduction as well as an increase of expenses related to welfare.

The enormous debt from the previous period of financial crisis and the actions of irresponsible politicians have created an evil circle where is not possible to find a correct solution.

The lack of support from the common people just made this situation worse.

Outsourcing created mighty competitors that have since become independent. That breaking economic relations between China and the US would negatively affect USA more than China best explains the current world economy situation.

### 3. OUTSOURCING IN DENMARK

The following discussion and figures are primary based on the figures from Danish Statistic Research, article “Danske Virksomheders Outsourcing” [9], and an analysis written by Tor Jakob Ramsay called “Strategies and preconditions for outsourcing and off shoring” [13]. The first article uses figures from Danish Statistic Research, where about 60% of Danish private companies were involved. These companies represent 72% of Danish overall export[9].

In Denmark, during the period between 2001 and 2006, every fifth Danish company had outsourced some job function, which is more than any other Nordic countries or Germany. Following Figure “Nordic countries outsourcing” shows percentage of the outsourced job functions [16]:

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**Figure 1:** Nordic countries outsourcing

This research collected data from the 5100 private owned companies that have 50 or more employees.

Following Figure “Outsourcing per country and percentage of outsourced functions” borrowed from the Danmarks Statistic shows the outsourcing countries and number of outsourced functions [17]:

<table>
<thead>
<tr>
<th>Country</th>
<th>Outsourcing from 2001 to 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>20</td>
</tr>
<tr>
<td>Finland</td>
<td>18</td>
</tr>
<tr>
<td>Norge</td>
<td>14</td>
</tr>
<tr>
<td>Sverige</td>
<td>6</td>
</tr>
</tbody>
</table>

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Denmark’s primary source of income is export and Danish companies are by default globally oriented. This could be why Denmark has outsourced more than other European countries to places outside of Europe, especially to Asian countries.

Industries outsourced in Denmark include:

- Core activities
- Help functions
- Research
- Services

The textile industry is an outsourcing leader and more than half of these companies have moved their production abroad. Immediately following are there on factories and metal industry, where about 40 percent of these industries were outsourced.

Each year around 6000 jobs have been moved abroad, a majority of which were primarily low-education, work-intensive jobs, but also included high-education jobs, such as research.

The reason behind outsourcing research functions is that production innovations and research are two compatible processes and effective research is not possible without production understanding. Research and production are two compatible tasks and research without production is very difficult and in many case almost impossible. By moving production to the Far East, the research jobs have been moved too to the Far East. Danish politicians have been worried about the movement of research jobs outside of Denmark because research is very important for future development and research during the period between 2003 until 2006 fell from 1.78% GNP to 1.65% GNP. [9]

The most outsourced customer service function is IT operations, and it is estimated that this outsourcing is already performed by about 5% of Danish companies.

According to estimates, the outsourcing trend will continue in the coming years and companies that are already outsourcing are planning to outsource other job functions. In this case, when asked about future outsourcing, two of asked three companies answered this question positively. [9]

Most of the outsourcing during this period was to other European countries, about 63%, but expectations are that in the future the primary destination for outsourcing will be Asian countries.

In the period from 2001 to 2006, Denmark lost about 6300 jobs per year, and outsourcing created 2900 new jobs each year. This means that Denmark lost 3400 jobs every year, more than 20,000 jobs for six years. Following Figure “Total number of outsourced, new jobs and lost Danish jobs from 2001-2006” illustrate that Denmark in period from 2001 until 2006 had lost more than 20000 jobs:

![Figure 3: Total number of outsourced, new jobs and lost Danish jobs from 2001-2006](http://www.cisjournal.org)

Outsourcing of services is limited by local availability, but where it is possible to divide service functions, for example, in financing, these functions are moved abroad too.

![Figure 4: Expected number of outsourced jobs in Denmark, UK and USA until 2015](http://www.cisjournal.org)
In the UK is anticipated more than 700,000 jobs will be outsourced by 2015. In the US, since 2003 211,000 jobs have been moved abroad each year, and 2015’s expectations are that the total of outsourced jobs from the US will be more than 3,000,000. [13]

There is also an interesting trend to move production from Denmark to Germany. One example is within the food industry, especially slaughterhouses, and the reasons are mostly due to the high production costs in Denmark caused by wages and corporate taxes. Pork production has moved to Poland and other Eastern European countries. The reasons are the same—wages and corporate taxation, but also environmental regulations that less strict than in Denmark.

Some analysis shows that offshore outsourcing of software development provides 30–40% cost savings and a quick payback, from 12–18 months. [13]

4. CONCLUSION

In 2004, at Barclay University, one of the authors met with vice-presidents from world-leading IT companies from the US and Japan. The quality of work was one of the most popular complaints against outsourcing high-tech jobs. The cheaper programmers are in a hurry to deliver the work and do not use standard procedures and methodologies that are necessary for quality assurance. The suggested solution to this problem was outsourcing to offshore companies large enough to implement standards and methodologies.

There is no doubt that offshore outsourcing has changed this world and moved economies, financing, and development from Western countries to other regions in Asia and South America, such as Brazil, Russia, India and China, the so-called BRIC countries. Countries that hold large amounts of human and natural resources become targets for Western companies searching for cost savings, growth and profit. This trend over the last decade has become dominant in the high-tech industry, in areas of research and IT industry, for example, and creates a lot of changes and challenges on both sides, positive as well as negative.

One example of offshore consequences was the strike of staff in the Danish CSC, where the leadership was accused of using resources from India to ensure proper functioning of affected IT systems. If this holds true, it could seriously damage more than a hundred years’ worth of labor unions fighting for proper work conditions as well as appropriate wages and any other job contract conditions that protect a worker who is a member of a labor union.

While in previous periods of history companies solely depended on the highly qualified and educated labor that once existed in the developed and East European countries, today this limitation Moreno longer applies. China and India have become sources of enormous human potential. For example, a higher education in India is now a top priority among the middle class, which in this country has reached more than 300 million. [14]

Western world production costs depend heavily on high wages as well as corporate taxation, and these are very high in these countries because a lot of money is spent on supplying welfare, increasing standards, and improving overall living conditions.

Wages in underdeveloped countries are very lowland there is little assistance for welfare and living conditions. Weak environmental protection regulations give a lot of space for aggressive use and pollution of natural resources and huge profit. Corruption in undeveloped countries is usually very high. [15]

The Western World built its development on innovations, competitions, and a huge source of educated and creative human resources. The leaner methodology does not fit very well in the everyday of the human beings that live in developed countries. Although off shoring has reduced the gap between developed and undeveloped countries, it has also created mighty competitors. It has released the Asian tiger, which has the same exact goal to dominate the current world using economy, finances, and advanced technology.

The technological and military advantages of the developed world’s alliance are reduced every single day. Investments in research programs and enormous sources of all kinds of human resources guarantee that Asian countries will soon become the new political world leaders. Two illustrative examples are China and India. Every year China produces hundreds of thousands of PhDs. No one should wonder why the most attractive research programs have moved to China. While the US and European countries are throttling in their countries’ enormous debt, China has becomes their investor and financier. So far, China lent the USA more than five hundred billion dollars.

The question as to who has the most interest in outsourcing and globalization can be answered with large corporations, large investments funds, and financial corporations that are interested in achieving maximum profit and becoming independent of any state or government decisions. Globalization and outsourcing are the next steps in the creation of fully fledged companies and their domination in this world.

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