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Offshore Outsourcing
A global shift in the present IT industry
by Georg Erber

Presentation at the UN ECE-Seminar: Fostering Internet Enterprise Development by Governments and Large Companies through Subcontracting,
October 5th 2004, Brussels, Belgium

Agenda

- Internet Enterprise Development rests crucially on the ability of SMEs in particular to participate in the globalisation process effectively via subcontracting with global players and to have access to a global customer base
- via Internet communication SMEs could link globally and by this overcome barriers to international trade in services in particular
- E-business is a mean for SMEs to participate in the restructuring of the global supply chains successfully
- Offshore Outsourcing of IT (OOIT) services has become a key driver for large companies or government institutions to effectively utilize cost advantages of suppliers around the world to become more efficient

Author Georg Erber
Date January 6,2004

Globalisation and the Restructuring of Value Chains

- key incentive for global companies and governments is to improve the efficiency of their value chains
- by using outsourcing as a means to focus on key competencies where their company has a comparative advantage compared to other suppliers, companies tend to reduce their exposure to inefficiencies in areas where they do not
- in particular in non-essential business areas this could lead to mutual gains for outsourcing companies and their subcontractors who do this outsourced activity as their core business

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What is Offshoring/Onshoring?

- **Offshoring**, can be defined as relocation of business processes (including production, distribution, and business services, as well as core activities like research and development) to lower-cost locations outside national borders. This term assumes the perspective of the country of origin.
- **Onshoring,** is just the opposite perspective. From the destination country onshoring complement offshoring from the country of origin.
- **Nearshoring**, is as term to denote that the location is close to the country of origin (e.g. Poland or Hungary to Germany, Mexico to the U.S.)

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What is Outsourcing/Insourcing?

- The theoretical foundation of the economics of outsourcing was first established by Ronald Coase in 1937 who asked the question, “what establishes the boundaries of a firm?”
- By comparing the costs of internal supply of a particular task or service with the external market costs of the same task or service, managers and entrepreneurs could decide about the efficiency of internal or external production by making internal/external cost comparisons.
- By establishing this kind of transaction cost calculation, Coase laid the foundation of modern transaction cost economics.[2]
- [2] For a recent survey on transaction cost measurement see e.g. Wang, N. (2003).

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What is Offshore Outsourcing?

- It is just the combination of the two.
- Companies who have first outsourced to domestic suppliers of intermediate goods and services now start to move these contracts offshore
- Or contrary companies who first went offshore first e.g. to Hungary or India for software development, start to outsource these activities done before by a local subsidiary to local suppliers
- This leads to a dramatic disintegration of traditional value chains

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subcontracting as a mean of a new international division of labour

- New ways of subcontracting have occurred with e-procurement systems via the Internet (e.g. Covisint, EU-public procurement systems)
- This offers in particular SMEs easier access to international markets
- However, there are barriers to access for SMEs in particular to overcome language differences, cultural and institutional barriers (e.g. legal systems, regulations, standards)
- These could become significant impediments for SMEs of e.g. new EU member countries to internalise the benefits of the larger economic area easily

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Internet-based international trade in services

- A key driver for enabling offshore companies to link into a global value chain is the Internet
- The Internet dramatically reduces the transaction costs to communicate globally almost instantly
- The ability to give access 24/7 via Internet to global trading partners, makes a huge amount of before international non-tradeable services now tradeable
- This brings into effect the calculus of comparative advantage of IT-service production to an ever increasing number of global locations

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Broadband Communication via Internet

- This transformation of the ability to communicate via the Internet changes by the still ongoing rapid diffusion of Internet connections accross the world lowers the first order digital divide (basic access) in particular in many developing countries
- Broadband communication via the Internet is the next step in the evolution to move multimedia content around the globe easily creating the risk of a second order digital divide (high quality of access)

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What activities are outsourced?

- Typical offshore activities are technology-based services like software programming
- Business services like accounting and all kinds of paper work done now electronically could be outsourced (billing, after sales maintenance services, etc.)
- Communication with local customers via call centers, e.g. Yell of the U.K. outsourced their call centers to India
- Financial and insurance services in particular back office acitvities which are ICT-based

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How significant is OOIT?

- On average, the value of current offshore outsourcing business contracts is $16.2 million in a recent U.S. survey of 101 organizations
- This is not very high for an economy like the U.S. with its $10.3 trillion GDP.
- OOIT is therefore at its infancy stage but still rapidly builts up its momentum
- However, a McKinsey Report of 2003 suggested that in the U.S. about 3.5 mill. IT-jobs could move offshore in the coming 10 years. In Europe about 3 mill. are considered to be vulnerable to OOIT.

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Opportunities of OOIT

- Cost savings of up to 40% expected by OOIT
- Higher flexibility for firms to adjust their capacities according to a volatile demand
- Reducing development time
- Reducing maintenance costs
- Keeping time-frames of projects intact
- Access to new service markets via reverse contracting with local offshore partners

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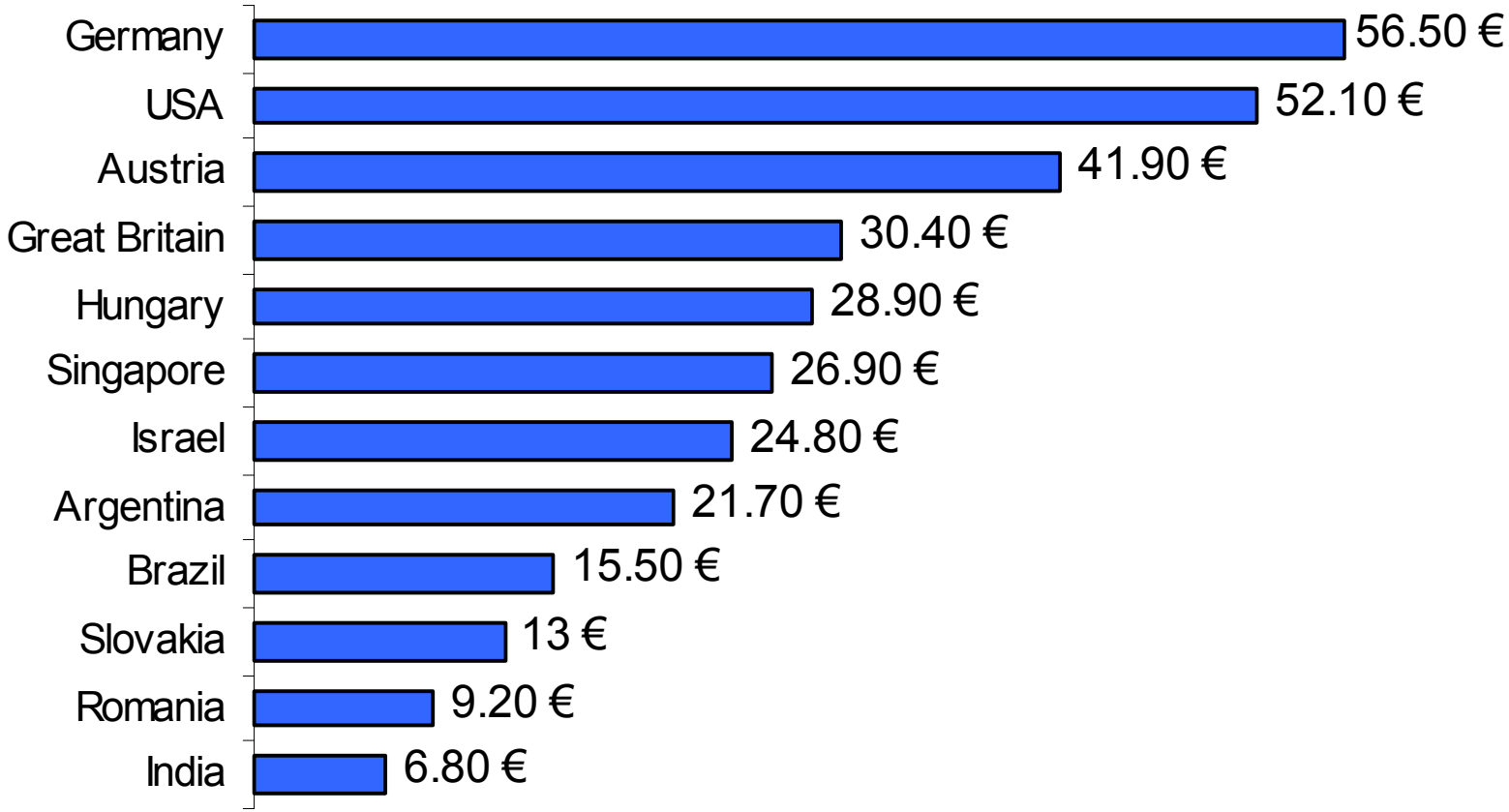
Siemens estimates: average labour costs per hour for software engineers in 2001



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Risks of OOIT

- Many economically attractive labour pools abroad carry **location-specific risks** that must be balanced against expected cost savings.
- Country risks depend on potentially shifting local political, regulatory and economic conditions
- Vendor risks choosing the right partners, remedy multiple sourcing
- Security risks, Intellectual Property Rights (IPRs) protection
- Hidden costs of OOIT

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Hidden Costs	Best case			Worst case		
Vendor selection	$16.2	x0.002	= $0.0	$16.2	x0.02	= $0.3
Transitioning the work	$16.2	x0.02	= $0.3	$16.2	x0.03	= $0.5
Layoffs and retention	$16.2	x0.03	= $0.5	$16.2	x0.05	= $0.8
Lost productivity/Cultural issues	$16.2	x0.03	= $0.5	$16.2	x0.27	= $4.4
Improving development processes	$16.2	x0.01	= $0.2	$16.2	x0.1	= $1.6
Managing the contract	$16.2	x0.06	= $1.0	$16.2	x0.1	= $1.6
Total hidden costs		**15.2%**	**= $2.5**		**57%**	**= $9.2**
Original contract value			+ $16.2			+ $16.2
Total costs of outsourcing			**= $18.7**			**= $25.4**

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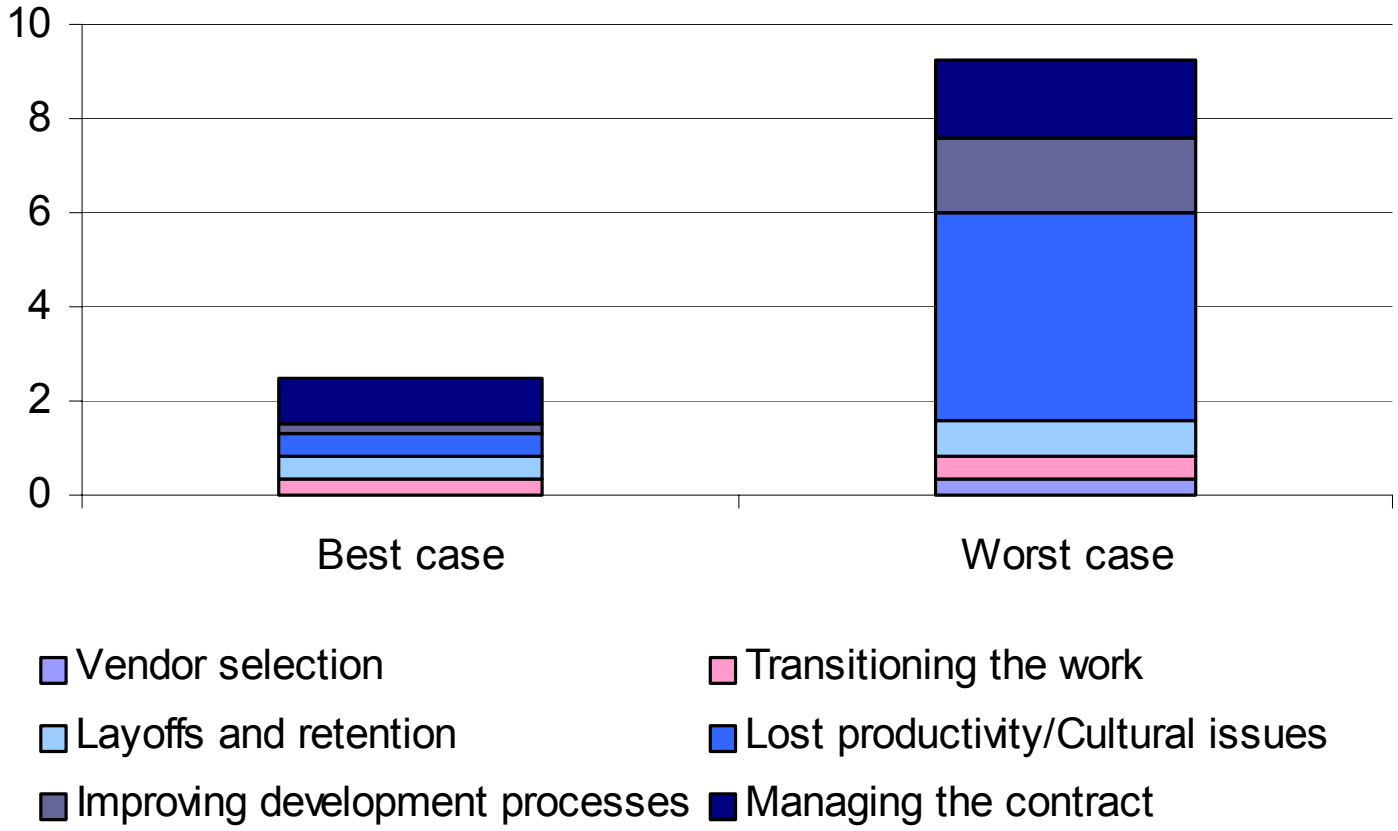
Hidden cost of outsourcing in Mio $



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Success of OOIT depends crucially on

- Learning-by-doing effects, i.e. information deficits could not easily be overcome, support of offshore outsourcing consultants might decrease initial learning costs significantly (see e.g. Arrow, 1962)
- Learning-by-using effects, i.e. adjustment costs in an actual OOIT activity depend on mutual learning between the new partners, they tend to decrease over time because a mutual understanding emerges on the particular habits of both partners (see Rosenberg, 1994)

Four Stages of Offshoring

- Bystanders (60% of the Fortune 1000)
- Experimenters (25-30% of the Fortune 1000)
- Comitteds (5-10% of the Fortune 1000)
- Full exploiters (<5% of the Fortune 1000)

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- It is well known that OOIT and internal IT-projects have a high failure rate, which is difficult to quantify since companies tend to be reticent about their total failures.
- A recent study[1] found that 33% of major Swiss IT projects are terminated ahead of schedule. This may provide an initial impression about the potential failure rate of OOIT as part of major IT projects.
- According to another study (November 2002) by DiamondCluster International, a Chicago management consultancy, 78 percent of executives who have outsourced an IT function have had to terminate their agreements prematurely. Poor service, a change in strategic direction and costs were the most frequently cited reasons for the outsourcing companies' dissatisfaction.
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[1] Sources: Accenture, Cash, Gartner, Ernst & Young, Dynamics Research

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Job creation/destuction by OOIT in destination/origin countries

- A study published by the Centre for Economic Policy Research (CEPR) in London found
- that German companies created 430,000 jobs in Eastern Europe between 1990 and 2001. According to the study, a large part of these jobs emerged because German companies needed local affiliates to enter foreign markets and reduce production bottlenecks at home.
- Furthermore, new jobs have been created in Germany as well (e.g. by parent companies providing their Eastern subsidiaries).
- The CEPR study yields the result that Germany experienced only a net drain of 89,196 jobs to Eastern Europe from 1990 to 2001 – less than 9,000 jobs annually – which is a surprisingly small number of job losses.

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Politics of OOIT
Winners and Losers

- OOIT will be most likely global welfare enhancing
- Low wage income countries which have sufficient human ressources in a local labour pool for IT service production benefit through new jobs and higher incomes in their countries
- High wage income countries benefit through trade in IT services, which they buy cheaper abroad than they could produce at home
- However, those IT-workers replaced in high wage income countries have to carry the costs

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Risks of a US protectionist backlash

- In the current U.S. presidential election campain the issue of protecting high-paid IT-jobs at home has become a major issue between the two presidential candidates
- In response to the Annual Economic Report of the President and the protests by IT workers and the U.S. public, U.S. Senate Democrats proposed a new law, the **Jobs for America Act**
- One reason is the current jobless growth of the US recovery

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A hot topic today and even more so in the future

- Gartner Inc. found that by 2004, more than 80 percent of executive boardrooms in the United States will have discussed offshore outsourcing, and more than 40 percent of U.S. enterprises will have tried a pilot program or actual outsourcing, either offshore or nearshore
- Forrester Research predicts that $136 billion in wages, or 3.3 million jobs (a little less than McKinsey predicts) , will move offshore from the U.S. in the next 15 years.

But how much it matters overall?

– ‘Frequently cited projections indicate that millions of jobs will be lost to offshore workers. What these projections ignore is that the globalisation of software and IT services, in conjunction with diffusion of IT to new sectors and businesses, will yield even stronger job demand in the United States for IT-proficient workers.’

Catherine L. Mann

Supersized impacts by a microeconomic perspective

- Taking a macroeconomic perspective the IT-job losses over the next decade in the US and EU-countries become much less dramatic
- Since the US and EU labour force is so huge and the job turnover rate is significantly larger than the expected 350.000 IT-job losses per annum in the US, one would expect that the overall labour market impacts of OOIT will be more or less insignifcant to change the labour market situation in these countries dramatically

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The debate of free or managed trade of OOIT will prevail

- Recently this debate gained a new momentum when Paul A. Samuelson challenged the free-trade-is-always-benefitial-doctrine of modern trade theory
- His argument focused on the issue that OOIT erodes the long-term comparative advantages of the US economy opposite countries like China and India in the high-tech sector
- This erosion of US comparative advantages would have long lasting impacts on the competitive position of the US in a global economy

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The floor for a discussion is open

- If there is no economic law that free trade can guarantee at least in the long-run mutual benefits of trade, what kind of consequences this would have on our global economy?
- Will we shift from an era of free trade to one of managed trade?
- Will we face a protectionist backlash?
- There are no safe answers about the choices made in the future
- We need at least a better empirical and theoretical foundation about what is actually going on

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