ASIAN EMERGENCE: THE WORLD'S BACK OFFICE?

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Executive Summary

Building on the successful past work of the EMERGENCE project, Asian EMERGENCE was set up in 2001 with funding from the European Commission's Asi@ITC fund. Co-sponsorship was received from the Austrian Federal Ministry for Science, Research and Culture, the Institute for Employment Studies in Brighton, the Working Life Research Centre in Vienna, the Asian Institute of Technology in Bangkok and the Indian Institute of Management in Bangalore.

Its aims were to investigate the development of eWork in Asia, with an especial focus on developing links between Asia and the EU and opportunities opened up for SMEs in the new global market in information services.

The original aim was to carry out 50 in-depth case studies, each involving a 'source' in one country or region and a 'destination' in another, and covering a broad spread of sectors, regions and business functions and including in-house as well as outsourced relocations.

This target was exceeded and the project was eventually able to analyse the results of 59 case studies. Case study investigations in Asia were concentrated in India, Indonesia, the Philippines, Sri Lanka, Thailand and Vietnam. However, investigating the 'sources' or 'destinations' associated with these cases entailed further studies in Australia, Austria, Belgium, Canada, Finland, France, Germany, Luxembourg, Norway, Sweden and the UK outside Asia, as well as in Hong Kong, Malaysia and Singapore within Asia.

The majority of the cases involved SMEs, although large global corporations were also investigated. Similarly, the investigations included in-house relocations as well as outsourcing relationships and covered 17 inter-regional relocations within Asian countries and nine relocations from one Asian country to another, as well as 27 inter-continental relocations of employment. They thus provide a comprehensive window into the global restructuring of value chains across a broad cross-section of economic activities.

The Asian EMERGENCE research was carried out during a period when there was a sharp escalation both in public awareness and in public concern about global outsourcing.

In these discussions, Asia has been presented variously as the world's back office, as a threat to employment in all developed countries and as a site of exploitation of cheap labour. One of the tasks of the project team was therefore to take a measured view of these developments, both from the Asian perspective and the perspective of Europe and Australia, and separate the hype from the reality.

The picture it found was a complex and dynamic one. The global restructuring of value chains that ICT has enabled is proceeding rapidly, with many features in flux. Nevertheless, some general conclusions can be drawn:

1. **Global relocation of work is moving from an experimental to a consolidation phase**

   In 2000-2001, when the EMERGENCE project carried out its first case studies, the relocation of work from Europe to other continents was still often regarded as an experimental activity. Companies typically proceeded cautiously, trying out single functions one at a time before moving to a major restructuring, with heavy reliance on a remote supplier. It is clear that in the intervening period this phase has given way to another, whereby using remote suppliers has become a normal and routine part of daily activity. Company structures have been reorganised to enable them increasingly to take account of this new reality and relationships have been built up with suppliers and remote branches enabling more and more work to be transferred in less and less risky ways. Intermediaries and consultants have played a role in building up this market. Once a critical mass has been achieved, the process is further pushed forward by competitive pressures.

2. **Relocation of employment is a continuing process not a single 'hop'**

   The relationship between the originating 'parent' organisation and the place where work is ultimately carried out is not necessarily a simple one. Often there are several intermediaries in the chain, perhaps based in different regions, countries or continents. The transfer of work rarely takes place as a simple handover. Rather there is a process whereby tasks may be passed across one at a time, sometimes after a prolonged period of preparation or training.

3. **Not all relocations are successful or permanent**

   Many attempts to outsource or relocate work have failed, often because tacit knowledge has not been made explicit, or because of poor communications, poor quality work or failure to prepare the ground properly. Often an outsourcing relationship is deliberately designed as a temporary expedient, with no intention of continuing it. This might be intrinsic to the nature of the task (*eg* to develop a specific product or

service). However, a temporary outsourcing may form part of a broader long-term company reorganisation strategy or evolve into one. Once the tasks have been systematised and rendered easy to transfer, they may subsequently be brought back in-house but on different terms. According to one industry estimate, half of all IT outsourcing projects are regarded as failures.

4. **Not all changes are driven by the demand side**

   It is often assumed that outsourcing takes place from a large and powerful organisation to a smaller and weaker one, with the terms of the deal driven by the demand side. With the emergence of large multinational corporations as major players in the market for outsourced business services, this is no longer necessarily the case. Much of the incentive to outsource or relocate globally may be arising as a result of marketing initiatives taken by outsourcers or their intermediaries, either directly or via the offer of consultancy services.

5. **Jobs are moving between Asian regions as well as inter-continentally**

   As well as a movement of employment to Asia from Europe, North America and other developed regions of the globe, there is also a continuing and volatile movement of employment within Asia. This may take the form of movements from one State or region of a country to another, or from one Asian country to another. This process is partly driven by autonomous reorganisation processes within Asian corporations (following a similar model to the spatial and contractual reorganisation processes of large European or US corporations). However, it is also driven by a desire by Asian business services suppliers to remain competitive and to protect or improve their position in the value chain. Thus Indian companies may subcontract to cheaper Asian destinations such as Sri Lanka or China. In yet more cases, the process is driven by large global companies, which may set up branches in several competing Asian destinations. The report includes a summary of some of the differences between six Asian nations and their competitive advantages and disadvantages in the global information services market.

6. **The search for low cost is not the only driver of relocation**

   Whilst it is undoubtedly the case that low cost plays an important role in the choice of an Asian outsourcer or location for remote work, it is by no means the only factor and may often take second place to other considerations. These include quality, reliability, specific rare skills and 'the right attitude'. If one of these factors is missing, a potential outsourcer may be rejected however low the price offered. In particular, remote customers may be prepared to pay a premium in order to guarantee continuity of service or high quality. This explains

the continuing importance of Bangalore in the supply of software, despite the fact that wages there are three times higher than in some other parts of India, and even more so than in lower wage countries such as Vietnam. It also explains the apparent paradox that wages in firms offering export-oriented business services may be three or four times higher than those in firms serving the local market. Whilst they remain lower than in Europe and the United States, such wage levels cannot be regarded as 'exploitative' in any simple sense. Indeed the workers concerned often have better working conditions than their counterparts in more developed countries.

Any cost benefit analysis of global outsourcing has to take account of set-up costs, increased management and quality control costs, and the costs of transporting workers and managers from one site to another for training purposes. These may take several months or even years to recover. For smaller companies, there is thus considerable financial risk involved in relocating work abroad.

7. **A number of preconditions must be met for successful remote work**

   Successful remote working practices require a number of preconditions. These include:

   - clearly defined, explicit and standardised working procedures and quality control mechanisms,
   - good and clear communication patterns,
   - mutual cultural understanding and adjustment, and
   - regular face-to-face meetings.

8. **New eEmployment does not appear to be created in rural regions**

   Modern ICTs hold out a hope for bringing employment to remote and rural regions and thus bringing about much-needed economic development. The evidence is, however, that both in Asia and in Europe, and in Australia, the new jobs are overwhelmingly being created in cities, for a number of reasons including: better and more reliable infrastructure, access to large population groups; and proximity to educational institutes and other business services companies. It appears to be extremely difficult to create good-quality information-based employment without a critical mass of educated graduates and support services. There is thus a risk of a growing polarisation between successful urban regions and excluded rural ones, paralleling the polarisation between countries that have found a niche in the new global division of labour in eServices and those which are excluded.

9. Jobs do not always disappear when work is relocated

The employment effects of job relocation are complex. When relocation takes place as part of an expansionary strategy, there may be gains at both the 'source' and 'destination', especially when the company increases its market share by successfully developing new products or markets. There may, however, be job losses in competing organisations that have adapted less successfully. When the strategy is one of consolidation or centralisation then there are more likely to be job losses at the source, though these are not always easy to quantify since the relocation almost invariably takes place in a general context of restructuring and changes in job descriptions. More commonly, there are no actual redundancies at the 'source' end but job numbers slowly decline through natural wastage whilst expansion takes place at the 'destination'. Some jobs are created in intermediary organisations but these are generally relatively few in number.

There have undoubtedly been a number of well-publicised cases of large-scale relocations of call centre jobs from Europe to Asia in recent years. It should be pointed out, however, that these have taken place in a context of general overall growth in call centre employment in Europe. Nevertheless, the mere possibility that work can be relocated to a lower wage environment puts downward pressure on wages and reduces workers' ability to bargain successfully for improvements. It may also be the case that new jobs are being created in different places, and for different social groups, than where the losses occur, with potentially negative impacts on employment. There are thus losers as well as winners in these processes.

Conclusion

Taking a longer-term view, it is clear that the rapid development of eWork in Asia is leading to the equally rapid growth of a new professional and technical middle class in the Asian cities and regions where this growth is taking place. This is driving a general development process accompanied by an equally explosive growth in markets. The companies whose practices are bringing about the new global division of labour in information services also stand to benefit from access to these markets, as do the nations where they are based.

The question facing policy-makers is how should these benefits be distributed throughout the population to ensure that the 'losers' are not excluded from their share of the proceeds?

1. Introduction

Ursula Huws, IES

The **Asian EMERGENCE** project was funded under the Asi@ITC Programme of the European Commission in 2002. It was supported by co-sponsorship from the Austrian Federal Ministry for Science, Research and Culture, the Institute for Employment Studies in the UK, the Working Life Research Centre in Austria, the Asian Institute of Technology in Thailand, the Indian Institute of Management (Bangalore) in India, and Edith Cowan University in Australia.

For its background knowledge and methodology the project drew substantially on past work by the **EMERGENCE** project. Set up in Europe in 2000, with funding from the European Commission's Information Society Technologies (IST) programme, this aimed to measure and map the international relocation of work using information society technologies and to gain some qualitative insights into the dynamics of change and the policy implications. The research carried out in Europe was complemented by the **Australian EMERGENCE** project, funded by several Australian government departments and the **Canadian EMERGENCE** project, funded by the Social Science and Humanities Research Council of Canada. FORFAS in Ireland, the HK Trade Union in Denmark, the Government of Flanders in Belgium and the Government of Austria supported smaller supplementary studies in Europe.

The Asian EMERGENCE project was therefore able to draw on a large pool of information already collected by various research partners, including:

- the results of a global data gathering exercise and statistical analysis (Huws, Jagger and Bates, 2001)
- the results of a major survey of employers in 18 European countries plus Australia, giving quantitative information on the scale of international relocation of work, the functions involved and the reasons for the choice of any given destination or outsourcer (Huws and O Regan, 2001)

- 62 case studies of telemediated employment relocation with a 'source' or 'destination' in Europe (Flecker and Kirschenhofer, 2002)
- further case studies carried out in Australia, Canada, Belgium and Austria.

A wealth of local knowledge and research experience was added to the EMERGENCE project by its two main partner organisations in Asia. The team led by Himanshu Paul and Sununta Siengthai at the Asian Institute of Technology (AIT) in Bangkok, Thailand, and that led by Rajendra Bandi at the Indian Institute of Management (IIM) in Bangalore, India. They were in turn supported by a network of national and regional experts, including Shiri Ahuja, Vishal Shah and Vasanthi Srinivasan in India, Nicanor C Austriaco in the Philippines, Georgius Gunawan, Denny Aryo, Veny Megawati, and BHW. Hadikusumo in Indonesia, Krairoek Pinkaew in Thailand, Ha Nguyen and Do Thu Huong in Vietnam and Sarath Dassayanaka in Sri Lanka.

The research presented in this report draws on a national reports and case studies carried out by these experts in Asia, as well as research carried out in Australia by Peter Standen and Jan Sinclair Jones, in Canada by Penny Gurstein, Deborah MacNamara, Jonathan Tinney, and Marisol Petersen, in Germany by Karin Hirschfeld, in Austria by Jörg Flecker and Hubert Eichmann and in the UK, Belgium, Germany and Luxembourg by Simone Dahlmann.

This report therefore results from collaboration between many individuals.

Further information about the authors can be found at the end of this report.

2. The Asian EMERGENCE Project

Ursula Huws, IES and Jörg Flecker, FORBA

2.1 The research context

When the EMERGENCE project was first set up in Europe, rather little was known about the extent to which work was being relocated across national borders. Although in the context of discussions about the development of a global knowledge-based economy it was increasingly recognised that Information and Communications Technologies (ICTs) had considerable potential to bring about such relocation.

The first question asked was to what extent employers are actually using the new technologies to relocate work. In the year 2000, the project carried out a survey of 7,268 establishments with 50 or more employees in the EU (15) countries plus Hungary, Poland and the Czech Republic, augmented by a comparable survey of 1,031 establishments of all sizes in Australia. Overall, the survey found nearly half of all larger establishments in Europe and nearly 40 per cent in Australia practising at least one form of eWork, in other words using ICTs to carry out at least one business function at a distance. The most common form of telemediated remote work was termed by the project as 'eOutsourcing', practised by 43 per cent of all establishments. Around seven per cent also used company-owned remote back offices in another region to supply business services.

The majority of remote back offices or outsourced suppliers were in the same region; however, over five per cent (more than one employer in 20) was already outsourcing at least one function across national borders, both within Europe and to other continents.

The business functions covered were: creative and content-generating activities, including:

- research and development
- software development; data entry and typing
- management functions (including human resource management and training as well as logistics management)

- financial functions
- sales activities
- and customer service (including the provision of advice and information to the public as well as after-sales support).

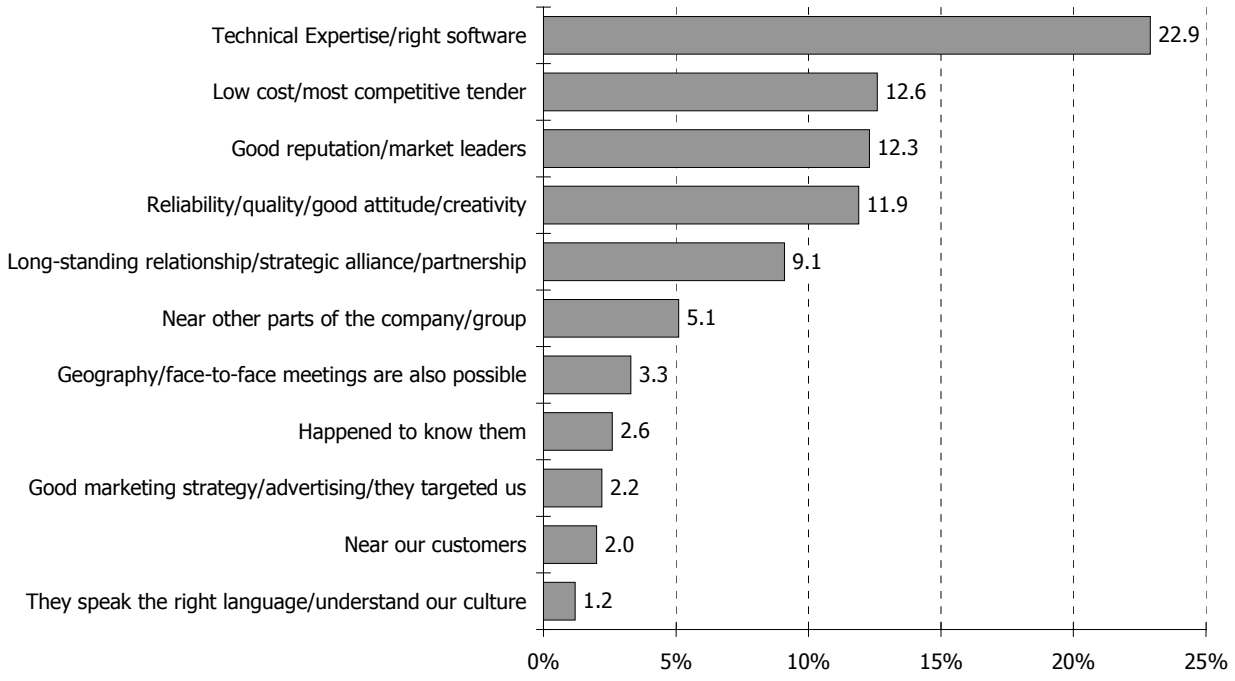
For each function, the survey looked at the extent to which it was carried out remotely using a telecommunications link ('eWork'), whether it was carried out in-house or outsourced, and the reasons for the choice of any particular location or outsourcer.

What are the main factors propelling this move to outsource beyond national borders? Figure 2.1 summarises the responses European employers gave to this question.

Top of the list is the right technical expertise. Only when this is available do secondary factors come into play, such as reliability, reputation and low cost.

It is this factor, more than any other that explains the importance of India in the supply of eServices. With its vast population it seems to offer an almost unlimited supply of English-speaking computer science graduates. A survey of 200 FTSE 1,000 UK companies commissioned in 2001 by NIIT Europe, a leading outsourcer, found that India was the offshore software development centre of choice for 47 per cent of managers. (silicon.com, 2001) There are already signs, however, that the Indian software market is overheating, despite the drastic drop in

Figure 2.1: Reasons for choice of outsourcer for eServices: the demand-side perspective



Source: IES/NOP European EMERGENCE Survey, 2000. Weighted figures, per cent of establishments with >50 employees. Base: 4,154 reasons given for eOutsourcing outside own region.

demand from the US. Some Indian companies have already moved into intermediary positions in the value chain and are themselves outsourcing to other destinations including Russia, Bulgaria, Hungary and the Philippines.

For lower value-added activities, like data entry, cheaper countries including Sri Lanka, Madagascar and the Dominican Republic have established themselves as alternative destinations to the earlier players (such as Barbados and the Philippines). Coming up on the wing is China, with an even larger population and lower costs than India, as well as a determination to acquire a leading role in the eEconomy.

The EMERGENCE research was, for the first time, documenting the emergence of a new global division of labour in information services in quantitative terms. A series of case studies carried out by the team then began the process of analysing the dynamics of this relocation, looking in particular at the constraints and facilitators of this relocation or work, the challenges to managers and the implications for employment and for regional development. Special attention was paid to the role of small and medium-sized enterprises (SMEs) at both the supply and demand sides of the new outsourcing relationships which were emerging (Dejockheere, Ramioul and Van Hootegem, 2003).

During the period in which the research was carried out, growing attention was paid in the press to the phenomenon increasingly known in the United States as 'offshore outsourcing' or 'offshoring'. Some of this literature is discussed in later chapters of the report. The term 'offshoring' may also make some sense for the UK, separated as it is from continental Europe by the English Channel (*La Manche)*, or for the island of Australia. It is not, perhaps, the most apt term for eWork for most Europeans, who are on the same landmass as many popular Asian destinations. In the EMERGENCE project we therefore prefer to refer to 'inter-regional', 'international' or 'inter-continental' (or simply 'cross-border' or 'global') relocations of work (a terminology which covers both in-house and outsourced relocated eServices'. The broad term 'eWork' is used to encompass all forms of relocated work that relies on the use of ICTS in order to be carried out a distance from the ultimate employer or business client.

Much of this press coverage implies a rather simple process, whereby work may be transferred from one country to another almost at the flick of a switch; it also suggests a 'zero sum game' model of employment whereby a job 'created' in one location equals a job 'lost' in another.

The earlier EMERGENCE research revealed a considerably more complex picture than this, and in some ways at variance with popular media stereotypes. It was clear that there is no single explanation for why companies choose to outsource or relocate in

another country. Expansionary strategies produce different effects from strategies of concentration and consolidation. Furthermore, location strategies are dynamic and not necessarily unidirectional. A temporary relocation may become permanent; an outsourced function may be brought back in-house at a later stage; and a single, apparently *ad hoc* expedient might subsequently become the basis for a major company-wide restructuring. Some relocations fail, and a successful relocation typically involves a considerable amount of preparation and movements of personnel from one location to another, for set-up, management and, most crucially, training purposes. In the process, job descriptions and skill requirements may alter significantly at both the 'source' and 'destination' location, producing either upskilling or downskilling depending on the circumstances. Whilst some jobs may be routinised, *eg* others may be upgraded to include quality control, project management and a range of 'soft' communication skills. It is thus no easy task to make straightforward calculations of numbers of jobs lost or gained. Rather there is a process of employment change that may in some circumstances involve expansion or reduction at either or both ends, depending on a range of variables including the overall market position of the company and the phase in a product development or business cycle.

The European and Australian EMERGENCE case studies also revealed considerable differences in company strategies in eService procurement depending on the particular function involved and the local supply of skills. Cost considerations tended to be paramount when low-skill activities like data entry were involved, but were sometimes of secondary importance when activities involved creative or development work. The decision to move to a particular location was often a by-product of a general decision to outsource and the specific competitive advantages of the company that won the tender. It was clear that several Asian countries were leading contenders in the competition to become favoured back-office sites for European companies. However, it was also apparent that considerably more research would be required in order to explore the dynamics of eService relocation, critical success factors in attracting such employment, and issues that may arise in transforming possible transient sources of work into sustainable employment that can contribute to general economic development.

Some of the research questions raised included:

- How can we explain the differences in the abilities of different regions and nations to attract eWork despite similarities in the availability of qualified labour and other significant variables?
- To what extent do national institutions still shape the geographical structure of global markets?

- What are the challenges for policy-makers and training agencies wishing to prepare the ground for new inward investment in eServices?
- How can SMEs identify global markets for the eServices?
- What are the challenges confronting managers and employees involved in eWork relocation within, to and from Asia (from both 'inside' and 'outside' perspectives?

2.2 Aims

This was the context in which the Asian EMERGENCE project was conceived, with the aims:

1. To investigate the quality and characteristics of the telemediated jobs which are moving between and within Europe and Asia.
2. To identify the factors which facilitate and constrain the development of new forms of telemediated work with particular reference to technological, organisational and human capital factors.
3. To identify the features of organisational size, structure and corporate culture which are associated with particular forms of work delocalisation and, in particular, to isolate those features which are associated positively (both qualitatively and quantitatively) with employment creation and competitiveness.
4. To identify the opportunities and threats to SMEs in relevant EU and Asian regions, including the synergies which can accrue as a result of the development of 'virtual partnerships' between European and Asian organisations.
5. To identify changes in the demand for skills at a sectoral and regional level.
6. To identify the social groups particularly at risk of marginalisation and exclusion in the new patterns of employment which are emerging in the global information society (again in relevant EU and Asian regions).
7. To identify new opportunities that may be emerging for women or other groups disadvantaged on the labour market in the new division of information labour.

2.3 Methodology

In order to address these ambitious research aims, several methods were used:

2.3.1 Scoping exercise

In the first phase, an international **scoping exercise** was carried out, involving an overview of the relevant literature. A secondary

analysis of the results of the European and Australian EMERGENCE results helped identify the role played by Asian companies and regions in supplying eBusiness services to Europe and Australia and a series of national reports covering India, Indonesia, the Philippines, Sri Lanka, Thailand and Vietnam. These reports are summarised later in this report.

This exercise made it possible to identify key **functions, sectors** and **regions** for more detailed study.

2.3.2 Development of research instruments

In the next stage, research instruments were developed for carrying out in-depth case studies, each involving at least two investigations, one at the 'source', *ie* the original location of the employment in question and one at the 'destination', *ie* the site at which new jobs were created. These instruments were based on those developed within the original EMERGENCE project, in order to maximise comparability. They were fully discussed and trialled in the Asian context and where necessary adapted to ensure their suitability for the local environment. It was recognised that not all relocations of work involve a single 'hop' from one location to another, so care was taken to ensure that these instruments could also be adapted to interview intermediaries in the value chain.

2.3.3 Identification of cases

The identification of cases was a complex matter, involving the juggling of a range of different variables in order to ensure a balance between comparability and regional representativeness and to cover a broad range of different business functions, firms sizes and contrasting regional environments. The project also aimed to capture a full range of different types of relocation including in-company and outsourced relocations, and those between different regions of the same country (inter-regional relocations) between different countries within Asia (international relocations) and between Asia and other continents (inter-continental relocations).

In order to be considered a valid case, it was necessary for access to be negotiated both at the 'source' and the 'destination'. the former being the location of the remote head office or client organisation constituting the customer for the eService in question and the latter being the location at which the employment was being carried out. Because the project did not have funding for intensive fieldwork in the United States, this meant that in practice most intercontinental cases involved 'sources' or 'destinations' in Europe, Australia or Canada.

The requirement for good access made it possible to carry out interviews with a range of different actors in each study

(including project managers, HR managers, technical support staff, training staff and operatives at each location). In addition, it was decided to restrict the study to cases where ICT played a necessary enabling role — in other words where the work was strongly **telemediated** and the relocation could not have taken place without the possibilities opened up by the new technologies. Furthermore, cases were restricted to those where the relocation had taken place recently (*ie* within the two years preceding the study) to ensure that participants still had clear memories of the process of relocation, including what had gone wrong, what had been unexpected, and how the current situation differed from what had preceded it. Finally, in order to retain a clear focus on the *processes* and *dynamics* of relocation, it was decided to limit each case study to a single business function. This avoided the risk of diffusing the research effort into merely obtaining a partial glimpse into the normal functioning of a large multi-site international organisation. The **specific business function** was therefore the object of study, rather than the company as a whole. In some cases, because of the increasingly complex nature of business services delivery, this focus on the specific function made it possible to follow a value chain across several 'hops' along a chain of outsourcers. A variety of different functions were selected for study, in a range of different regional and company size contexts. Thus, a relatively small number of case studies could provide 'windows' into the restructuring strategies of a cross-section of companies, including major transnational corporations and large and small national or regional players, based both in Asia and elsewhere.

In order to facilitate the selection process, a case selection template was developed. Using this template, national experts were able to circulate potential cases in their respective countries to other partners. The information derived in this way made it possible to develop a case study matrix of sectors, company sizes, countries and business activities that were to be investigated. This tool was then used to ensure a balanced spread of case studies across functions and sectors.

2.3.4 Fieldwork

Carrying out the fieldwork involved the co-ordination of the efforts of experts across the globe. This was achieved collaboratively. The process involved frequent communication to amend plans to take account of difficulties in negotiating access at either end of any given case (generally involving investigation by two different national teams) whilst nevertheless ensuring an overall balance in the case studies between different functions, company size categories, regions and types of relocation.

The need to establish clear mutual understandings and lines of communication between team members provided an insight into some of the issues faced by managers in the cases under study.

In order to ensure the anonymity of informants, all case studies were given a nickname. For each of the cases, the interviews were taped (wherever possible) and later transcribed. Detailed interview notes were also taken and researchers also gathered information from secondary sources such as company websites, annual reports, organograms *etc.* The transcripts were later analysed using a report structure developed by the research team, to produce a case report. These case study reports were delivered to the co-ordinating partners in Europe and Asia who carried out detailed analyses at several levels. In some cases, the process of analysis threw up new questions which were passed back to the researchers who then did further investigations or interviews to answer them. This further process of collaboration also contributed to the generation of new insights.

2.3.5 Analysis and interpretation

The analysis and interpretation of the large mass of material collected also involved international collaboration and a multi-stage process. Preliminary analysis of all the Asian cases and national reports were carried out in Asia. The partners in Europe and Australia carried out a separate analysis of the cases involving inter-continental relocations, with the final results being brought together in an iterative process, of which this report is the result.

3. Trends in International eWork Relocation

Hubert Eichmann, FORBA

According to recent market research company forecasts, relocation of information work (or 'eWork') is currently one of the most significant trends in knowledge-based services. In the EMERGENCE project, eWork is defined as work that is information-based and capable of digitisation and transmission over a telecommunications link, and thus potentially delocalisable (Huws, 2003). Company-based forms of eWork relocation can either be internal (remote back offices/call centres or new branches in emerging markets) or external (*ie* outsourcing). While companies have always practised relocation processes on a regional scale, cross-border or inter-continental ('offshore') shifts of knowledge-based service work using ICT are quite new phenomena. Regions such as India, Southeast Asia, China or Eastern Europe are benefiting from the international relocation of increasingly knowledge-intensive ITES (IT enabled services) and BPO (business process outsourcing). This is exemplified when, apart from low labour costs and a large reservoir of skilled workers, they can guarantee political stability and an extended infrastructure, while at the same time offering historical (colonial) or linguistic relations to certain industrial nations.

In the US, Forrester Research estimates that around 27,000 IT-jobs were relocated overseas in the year 2000 and that this will have grown to 472,000 by the year 2015. Not only simple data entry and call-centre jobs are being shifted, but also software development and other higher-skilled jobs in purchasing, in HR management, in marketing and in accountancy. The trend statements by market research and management consultancy companies must be viewed with certain reservations, however. Many of the companies producing such forecasts are themselves major players in the business services outsourcing market and thus have material interest in boosting the global outsourcing market. Their forecasts could thus in some cases be regarded as self-fulfilling prophecies, with the outsourcing market expanding partly on the basis of such forecasts, leading to an increasing demand for consultancy on outsourcing by companies anxious not to be left behind in what may appear as an unstoppable trend.

Moreover, the high US figures on the relocation of IT jobs should be put in their relevant context. According to information from the US IT industry association ITAA, the industry employed around 10.4 million people in the year 2001. Due to the economic crisis, this figure dropped by five per cent within 12 months, or more than 528,000. In the same period of time, IT companies in the USA hired 2.1 million skilled workers and a total of 2.6 million were made redundant (Rohde, 2003 p.610).

European estimates of IT outsourcing are similar: for the United Kingdom a relocation of 20,000 to 25,0000 IT-jobs is forecast by 2006, which would be equivalent to about 2.5 per cent of existing IT jobs in the UK today. Deloitte Consulting expects European financial service providers to move 700,000 or 15 per cent of all IT jobs in the years to come. In this respect Deutsche Bank is leading the way, with the announcement that it is to relocate more than 10,000 IT jobs, half of them to low wage countries. Also in Germany, Siemens has decided that the company's software development (Siemens employs about 30,000 members of staff in software development in Germany alone) should in future be increasingly relocated, away from expensive sites such as the US, Germany and Austria to Eastern Europe, India and China (Müller, 2003 p.19).

For some years the relocation and new investment in IT services into developing countries has attracted considerable attention.

> *'This process, in part, reflects the "hollowing out" of such service activity by redirecting not just the routine activities overseas, as has often occurred in manufacturing, but also key research, design, programming and maintenance work.'* (UNCTAD, 2002 p.11)

The authors of the UNCTAD report argue that barriers to the internationalisation of IT services, in particular national orientations due to public procurement, language, national standards, dominance of national hardware suppliers, certification, intellectual property rights *etc.* have been eroded and given way to the emergence of a world market. A new international division of labour is also fostered by strategies of large IT service firms that have moved towards a 'specialisation between national centres in terms of software development and generation, rather than seeking to maintain a whole set of software specialisations in each individual country' (*ibid*:12). This contributes to a general trend of a more decentralised pattern of IT service and software production, decoupling some of the activities involved from proximity to the prime users. The authors conclude that the 'spatial delocation and the segmentation of the industry can offer substantial opportunities for lower cost software centres in India, East Asia and Eastern Europe to serve markets in the major industrialised economies of the world' (*ibid*:13).

On the whole, trend forecasts tend to show that service activities concerning high-tech industry, especially IT, will be considerably

more affected by relocations than production, because in these industries labour costs make up the lion's share of the overall cost. Qualified IT engineers are, *eg* available in abundance in India, and cannot be matched for cheapness within Western Europe (one-fifth to one-quarter of the staff costs compared to Western Europe). In contrast, in production areas such as the chip-production industry, staff costs only account for a small part of the total investment, so wage costs is only one of many factors in company decisions on location.

The 'flight to outsourcing', though, is not only based on considerably lower wage costs in Asian countries, and can no longer be explained by the often lamented lack of skilled IT-workers in Europe. Rather, it is a combination of manifold factors, *eg* it is partly the high complexity of information technologies themselves that produces the problems for which outsourcing is then found to be the solution. In the years of the IT boom, IT projects within companies found separate and independent solutions, which now call for integration into the overall IT architecture. Dwindling IT budgets, as a result of the 'New Economy' crash, mean that there is over-capacity that is now lying unused and requiring high maintenance costs. Though decisions — whether strategically planned, or arrived at rather by chance — are made separately by individual enterprises, they build up to a form of hype just because of the multitude of similar constellations and the reduction to a single solution — outsourcing. This resembles the herd behaviour around the shares hype up to the year 2000.

Voices against blindly following the global outsourcing hype have become louder in recent months, firstly from a functional perspective: outsourcing internal services to external suppliers does not guarantee success. The most obvious disadvantage is the potential to undermine the whole company. By concentrating on core competencies companies may be reduced to a fragile skeleton if too many competencies are transferred. Companies using outsourcing — regardless of the economic sector — explicitly run the risk of losing control over their value-creation chain. Secondly, from a cost perspective, it seems that western companies underestimate the real or 'total cost of global border outsourcing'. It seems very seductive for western businesses to reduce costs to a minimum by global outsourcing IT, *eg* from IT work costing $100 an hour in the United States to $20 an hour in Bangalore. However, in fact such bargain-basement labour rates tell only a fraction of the story about global outsourcing costs. What many global outsourcing enthusiasts fail to appreciate is that it may take years of effort and a huge up-front investment to arrive at even a modest level of savings.

> *'The truth is, no one saves 80 per cent by shipping IT work to India or any other country. Few can say they save even half that. As just one example, United Technologies, an acknowledged leader in developing*

offshore best practices, is saving just over 20 per cent by outsourcing to India.' (Overby, 2003)

Similar points emerge from the case studies carried out by Lacity and Willcocks (2001) who point out that 'some savings may be more real than others' and that 'outsourcing can carry hidden costs, *eg* management, excess fees and contract ambiguities' (Lacity and Willocks, 2001 p.195).

The following hidden cost factors of global outsourcing may add up to additional 50 per cent or more of the contracted costs (*cf.* www.cio.com/archive/090103/money.html):

- cost of selecting a vendor and initial travel costs
- cost of transition: it takes three months to a full year to hand the work over completely to an offshore partner and set up necessary network infrastructure
- cost of layoffs at the source side of outsourcing, depending on national labour legislation (*eg* redundancy protection)
- 'cultural' cost, from transition-related productivity slumps — on average, application development efficiency declines 20 per cent during the first two years of a contract. Other cultural cost factors are:
  - communication costs caused by cultural misunderstandings
  - high turnover at offshore vendors with attrition rates as high as 35 per cent in India.
- cost of ramping up, *ie* well-defined and accepted internal maintenance processes
- cost of ongoing managing and auditing an offshore contract.

In spite of all the scepticism towards the fashion for IT outsourcing, it can be assumed that both the extent of global outsourcing and the intensity of knowledge of outsourcing activities will increase. On the other hand, assessments regarding the consequences for employment in the industrial countries are generally vague. Admittedly, in companies with outsourcing plans for their staff there is always the fear of losing jobs, but case studies carried out for the European EMERGENCE project (Flecker and Kirschenhofer, 2002) showed that the relocation of eWork can have both a staff-reducing as well as an expansionary character, depending on the particular circumstances. For the immediate future, at least, one should assume that in the high wage countries there will be no expansion of IT jobs but that the redundancies could well be fewer than market research companies have predicted. The extent to which jobs in Europe really are endangered further depends on national frameworks such as labour legislation or co-determination rights for works councils. Nevertheless, it is expected that the number of *new* IT jobs in developing countries will grow considerably more quickly

than in developed countries, because, once relocated, jobs tend to stay where they are and bring in further investment. For Western Europe, therefore, at best a stagnation of employment of skilled IT workers can be assumed and upgrading of skills for existing staff is crucial, *eg* towards project management for IT engineers.

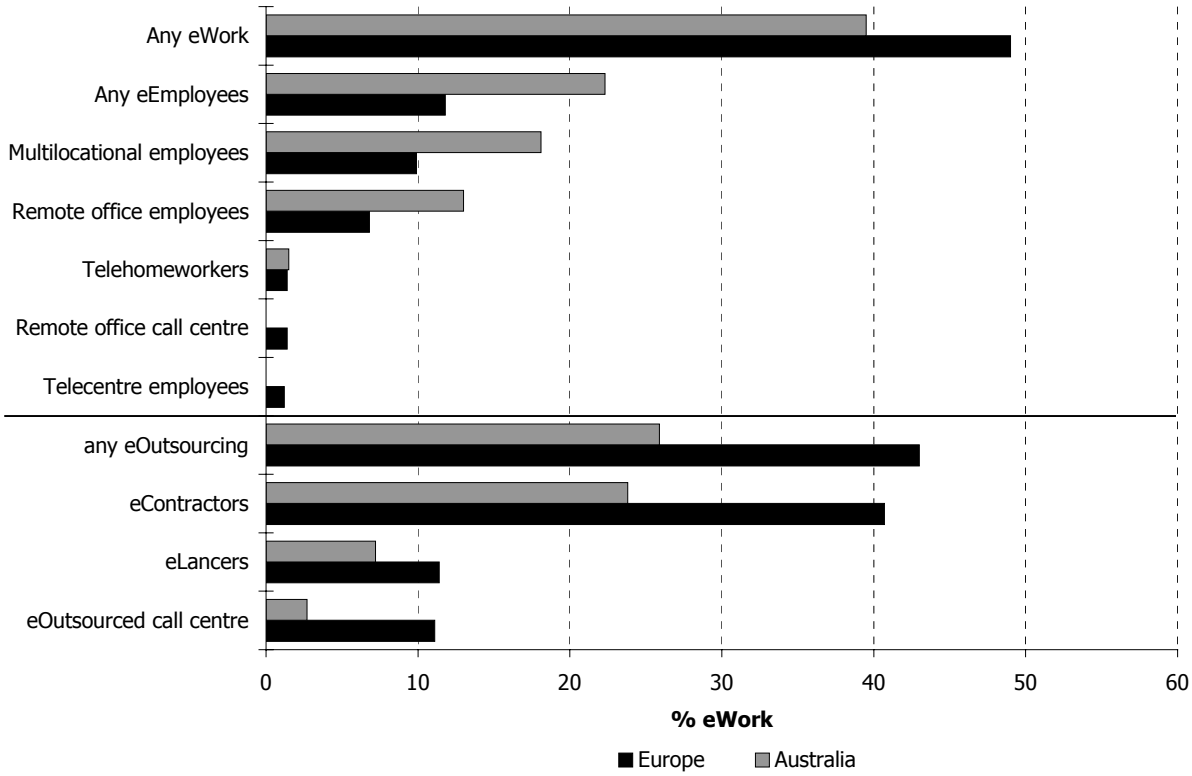
3.1 The 'source' side of global eWork relocation: evidence from the EMERGENCE surveys

Although there are enormous differences between different Asian countries as attractive vendors of IT-business services, the general trend to global outsourcing gives realistic possibilities for growth to a number of Asian countries. In contrast, there is rather little knowledge about differences between the more developed countries that are classified as 'source' sides of eWork, *ie* those which might experience job losses. A brief re-analysis of existing findings from the EMERGENCE project sheds light on differences regarding the diffusion of eWork, including the international dimension of relocation among European countries, as well as between Europe and Australia. A survey of 7,268 companies with 50 or more employees in the EU (15) plus Hungary, Poland and the Czech Republic (Huws/O'Regan, 2001) was augmented by a comparable survey of 1,031 companies of all sizes in Australia (Standen/Sinclair-Jones, 2002).

Results of the EMERGENCE European Employer Survey carried out by the project in 2000, show that nearly half (49 per cent) of all European companies with more than 50 employees were already practising some form of eWork, as can be seen from Figure 3.1. In this survey, eWork included any form of remote work carried out away from a company, yet managed by that establishment using information technology and a telecommunications link for receipt or delivery of the work (*eg* software development and support, creative work including design or editorial work, HR-management, customer services).

Results from the EMERGENCE survey also show an interesting breakdown by European countries. Countries with high levels of eWork fall into two broad categories: advanced high-tech economies such as Finland (76 per cent), Sweden (60 per cent) and the Netherlands (58 per cent), which make use of ICTs for a wide variety of eWork practices; and countries in central, eastern and southern Europe such as Greece (74 per cent), Italy (60 per cent), Hungary (67 per cent), Poland (63 per cent) and the Czech Republic (72 per cent), which have very high levels of outsourcing (but much lower levels of eWorking by employees), sometimes rooted in economic systems that favour small companies or display a large, informal economy. The new information technologies have clearly enabled institutions in these countries to develop electronically-based subcontracting networks to a considerable extent (Huws, 2001 p.24).

Figure 3.1: eWork in Australia and Europe in companies with >50 employees



Source: IES/NOP European EMERGENCE Survey, 2000; Edith Cowan University EMERGENCE survey, 2001. Weighted figures, percentage of companies. Sample size: 332 large or medium companies in Australia, 7,305 large or medium companies in Europe.

A comparison with Australia (see Figure 3.1) shows some interesting differences. Levels of eWork are considerably lower in Australia (40 per cent); but forms of eWork using employees are significantly higher than the European average. This pattern is closer to that of countries in northern Europe than of Mediterranean and Eastern European countries.

In both Europe and Australia, in-house eWorking is outweighed by eOutsourcing as a mechanism for carrying work out remotely, with some 43 per cent of European employers and 26 per cent of Australians making use of this practice. Within Europe, much eOutsourcing is carried out within the region where the employer is based (34.5 per cent) but substantial numbers (18.3 per cent) outsource to other regions within the same country, and 5.3 per cent outsource outside their national borders. These inter-regional and international (sometimes inter-continental) relocations of work provide clues to the geography of the emerging international division of labour in eServices.

Australian data for international relocations of work is lower than Europe's (*ca.* one per cent), whereas eWork arrangements of Australian companies that cross state boundaries make up about 25 per cent of instances, perhaps owing to the same culture and language. Higher rates for international relocation in Europe do not necessarily mean higher rates for global outsourcing of eWork,

as here all instances of arrangements crossing national boundaries are included, *ie* also those from one EU member state to another. There may be several reasons for lower rates of international eWork relocation in Australia that cannot be explained in detail: *eg* availability of skilled labour, appropriate labour costs, size and structure of the Australian IT industry *etc.* Moreover, two aspects to be discussed in more detail in Chapter 6 can be mentioned here: Firstly, there has been public pressure on Australia's federal and state governments to keep IT work in the country and to establish some opportunities for rural areas, *eg* in cases of outsourcing plans by public administrations and public companies. Secondly, some Australian companies seem to be refraining from outsourcing high-skilled eWork, such as software development, to Asian countries for non-economic reasons, even though this might be contrary to the maximisation of cost reductions. Some, though not only, Australian businesses still prefer working with a personal contact rather than through entirely e-mediated suppliers.

The Australian survey covered all sizes of company right across the economy. There is evidence that eWork is much more likely to be practised in the largest organisations, steadily diminishing with company size. Small companies in Australia are also less likely to practice eOutsourcing, but here the size differences are less; medium-sized companies (with 51 to 200 employees) are actually more likely to eOutsource than larger organisations (those with over 200 employees).

Quite similarly, European findings show that international outsourcing, relocation and global co-sourcing is more a matter of larger companies or MNCs. The collection of 60 case studies on eWork relocation within the European EMERGENCE project (Flecker and Kirschenhofer, 2002) provides arguments that outsourcing and relocation across borders have up to now been mainly confined to larger businesses because these activities need to comply with certain specific requirements. Also, because a relatively costly experiment such as outsourcing carries a proportionately higher risk for a small company which has to 'put all its eggs in one basket' in relation to many business functions. In addition to the primary drivers of eWork relocation, such as cost savings achieved by economy of scale, cost differences between regions and/or companies, and the availability of skilled labour and expertise, the following organisational facilitators seem to be the most important ones:

- existing contacts with partner companies and support from parent companies
- workers' involvement in the preparation and execution of the relocation
- clearly delineated tasks or projects including a high degree of standardisation and formalisation, as well as exact specification and documentation of the eWork to be done

- adaptation of work organisation and technology to the new environment
- organisational change at the source in order to adapt to the new division of labour
- dedicated and extensive efforts regarding knowledge transfer and training.

3.2 The 'destination' side of global eWork relocation

Observing the growing global information economy, there is evidence that international relocation of employment has become a key issue. Technological change and open economic and geographic frameworks have not only provided opportunities for the globalisation of trade in, and production of, tangible goods, but also of intangible services. Within ICT-enabled services, the potential for an international division of labour determined by relative costs is enormous, as high-cost economies move up the value chain, leaving lower value-added activities, such as remote data processing and back-office functions, to be contracted out to lower-cost developing economies. Limits to the externalisation of work no longer arise so much from technical barriers, but from considerations of managerial efficiency. Inherent in the ICT technologies is the possibility for developing countries to become better integrated within global value chains, with the greatest degree of integration occurring through trade in intangible products. Opportunities in this area include software development, back-office work for banks and insurance companies, publishing, medical transcription, data processing, the creation of web pages and databases, or the digital transcription of engineering drawings and maps (ILO, 2001 p.99).

In Asian transition countries like India, Sri Lanka, Thailand, Philippines or Malaysia, relocalised, global eWorking or back-office work like data processing, teleservices or software engineering on premises of local businesses or subsidiaries of MNCs is becoming more and more widespread. This is made possible due to low cost technologies, generous tax regimes, competitive labour costs and highly skilled labour force segments. Inexpensive facilities not requiring a large-scale infrastructure make this particularly attractive for companies. Call centres especially (telephony-based services to customers in a variety of business sectors) are seen as a form of telematically supported work with considerable growth potential. In terms of qualification requirements, there is an upward trend, *eg* call centres have been found to attract graduates, the majority of them working full-time, many of them women. Women especially have welcomed the opportunities of employment outside the home afforded by call centres (ILO, 2001 p.129).

3.2.1 The Indian IT Industry

India has so far occupied a special position among all the eWork offshore nations. According to the Gartner Group, 90 per cent of the global IT-offshore business volume has gone to India in recent years. This is due to Indian graduates' solid English-language skills as well as to the enormous potential of a highly skilled IT labour force, especially IT engineers. Every year some 75,000 young graduate computer specialists enter the Indian labour market — this is the same number as all computer engineering students in Germany. 50 per cent of India's annual IT graduates are women (Müller, 2003 p.21).

The Indian software industry grew at an annual rate of more than 50 per cent between 1995 and 2000 (in 2003, this was about 25 per cent). 75 per cent of all Indian IT services are produced for international markets and India accounts for about two per cent of the global IT service market. In 2000, about 500,000 people were employed in the Indian IT industry, 27 per cent of them women.

Meanwhile, large Indian companies like Wipro, Infosys and Tata have become important players in the global IT market and MNCs like IBM, HP, Oracle, and Microsoft have established branches in Indian cities. Nevertheless, the activities in software and related services, including informal sector activities, are to a great extent delivered by small and micro-enterprises. The majority of workers in these companies have at least a college degree or a higher qualification in addition to some training. Moreover, in no other country is the number of IT companies with ISO and CMM (Capability Maturity Model) certificates higher than it is in India. Among other things, the high degree of process documentation in Indian software companies is due to sharp organisational hierarchies with low participation and high turnover rates of young professionals. Rigorous quality standards also act as an important marketing advantage, helping to allay customers' fears about poor quality, or difficulty in managing remote operations.

As in other sectors, software development projects are considered to pass through a series of lifecycle phases, which can be represented as a 'cascade' of activities. These activities propel systems-relevant knowledge through a series of transformations from the 'upper end' of the cascade, where knowledge is viewed from a business-oriented perspective, to the 'lower end', where a computer-oriented perspective is adopted. 'Upper-end' tasks such as business analysis or more complex software solutions for individual clients are still often confined to industrial countries or larger businesses, whereas the well-specified 'lower end' tasks, such as coding and producing standard solutions, are carried out in smaller companies. Furthermore, links between the informal and the organised formal sector are nearly always vertical, with most of the customisation and data-entry companies serving clients in the organised sector. The attractiveness of these smaller

companies lies in their price competitiveness and more personalised services.

The Indian software industry is mainly concentrated in megacities such as Bangalore, Mumbai or Chennai. Similar to other industries, global value-creation chains are developing in knowledge sectors, which are characterised by the fact that various functions and activities are carried out in different locations. But despite the technologically conditioned independence of location, knowledge work remains concentrated in particular regions and cities. This concentration is increasing, rather than diminishing, because knowledge is socially embedded and geographically located (for software-development see UNCTAD, 2002). However, the meteoric rise of megacities such as Bangalore to globally integrated locations of electronics industries and software production produces profound changes in the metropolitan landscape, creating aggravating disparities and a highly polarised urban society. Bangalore is becoming what has been called a multiply fragmented city where both social and geographical barriers are reinforced. While a relatively tiny stratum of an affluent urban elite benefits from these transformations, the living conditions of the urban poor seem likely to be further marginalised (Dittrich, 2003).

3.2.2 Will work take flight to other Asian countries?

Some Indian IT companies have already moved into intermediary positions in the value chain and are themselves outsourcing to other destinations in Asia and also Eastern Europe. Furthermore, according to NASSCOM (2003), the Indian IT business association, between 2002 and 2003 the daily rate for Indian programmers fell by ten per cent to about $35 per hour. This took place under pressure of even cheaper daily rates in Vietnam, Russia and, most of all, China. According to a report in a US specialist journal, MNCs such as Intel, Siemens or HP have, in the meantime, already set up over 200 development centres in China, mostly in co-operation with Chinese companies. This 'joint venture' model has also been followed in Vietnam. Until recently the multinationals' main worry had been the protection of intellectual property rights in China. These worries have been cleared up for the time being, though, as a result of China joining the WTO (Müller, 2003 p.22).

Apart from the fact that competition regarding IT jobs within Asian countries will continue to grow in the future, technology is progressively taking over more and more simple functions; it seems to be permanently 'catching up' with work previously carried out by people. This has been the case with data-entry functions and is likely to be the case with a number of functions in call centres. There is a risk that in the not-too-distant future, employment even in currently booming forms of eWork, such as call centres, will decline rather than increase. Thus, the

manifestation of globalised forms of eWork is a mixed blessing. For developing countries the road to be followed is a narrow one, which could lead to the exacerbation of economic dependency and the growth of two-tiered societies, but which could also provide a chance of leapfrogging at least part of the gap with the industrialised world (Di Martino, 2001 p.45).

To summarise, there are important niches in the market for IT-enabled long-distance services, which can be successfully exploited by developing economies with a literate workforce and a modern telecommunications system. The potential to exploit such niches depends upon the local skills base, infrastructure, market and regulatory environment. Nevertheless, the ILO *World Employment Report 2001* points out that the success of countries such as India, the Philippines, Brazil or Romania in participating in global value chains is the exception not the rule. For many other countries to take advantage of this trade in intangible products, a wide range of business pre-conditions need to be met. Thus, evidence of successful cross-border IT-outsourcing in some other countries is more anecdotal:

> *'In Morocco, eg, a local Internet service provider (ISP) is converting the paper archives of the National Library of France into digital form. In Togo, the world's first Internet-based call centre has been set up to provide globally competitive telephone support services for companies with customers in North America. In Senegal, a company employs 30 skilled CAD technicians in computer-assisted architectural design for European clients.'* (ILO, 2001 p.99f)

An analysis of relevant statistical indicators for 204 countries by the EMERGENCE project suggested that no fewer than 114 of the world's nations fall into a category dubbed 'eLosers', with no significant place in the new global market for eServices and no likelihood of finding one in the foreseeable future. (Huws, Jagger and Bates, 2001 p.55)

3.3 Conclusion

Although the forecasts are far from simple, we can conclude that global outsourcing of eWork from sources in northern America, Europe and Australia, predominantly towards destination sites in Asian countries, will remain a major trend in the next few years. An abundance of high-skilled labour, low labour costs and western companies' perspectives of direct investment in future end-user-markets are very attractive reasons to relocate IT-based work to Bangalore, Bangkok or Shanghai.

Enabled by communication technologies and boosted by the IT skill shortage in western countries during the 1990s, the boom in IT global outsourcing to Asia is now showing tendencies to move from isolated measures in company departments to more comprehensive company reorganisations. In terms of job losses or job gains, more reductive strategies with job losses in northern

Table 3.1: Main push- and pull-factors for global outsourcing of eWork

Push-factors	Pull-factors
IT skill shortage in Europe in the 1990s	IT and language skilled labour force in Asia
High labour costs in western countries	Low labour costs and low labour protection legislation in Asia
Global restructuring of MNCs	Direct foreign investment in future end-user-markets

Source: Asian EMERGENCE project

America and Europe, are to be expected, even though probably at a lower extent than some market research companies predict. Once eWork is relocated on a significant scale to a developing country like India it is unlikely to move back. If it does move again, this is more likely to involve a shift to a location with even lower labour costs, such as Vietnam or China.

Thus, both for western and Asian countries, whether the global information economy will become an inclusive 'high road' to eWork or only a 'low road', exploiting cheap labour on a global scale is an open question far removed from simple forecasts.

4. The Asian EMERGENCE Case Studies

Simone Dahlmann, Analytica and Ursula Huws, IES

We have seen in previous chapters that eWork relocation can best be understood as part of a general global restructuring of value chains. In a dynamic process, companies seek out cheaper and more efficient ways to tap into a global pool of skills. This may involve both a spatial reorganisation and a contractual one. As supply chains become more extended geographically, they are also more likely to involve longer chains of outsourcers. A model of relocation as a single hop from one location to another is no longer sufficient. Any given hop may simply constitute an intermediate step in a longer value chain. And any given location may constitute a staging post in a longer geographical journey.

The Asian EMERGENCE project aimed to create a cross-sectional 'window' into these complex processes, capturing a diverse range of different functional steps in the new global value chains. In order to achieve this, the team carried out a total of 54 new case studies and revisited a further five cases carried out in the context of the earlier EMERGENCE project and involving Asian locations.

Each of these cases involved separate investigations at both 'source' and 'destination' locations and in some cases further interviews with intermediary organisations.

4.1 Geographical distribution

Of the resulting 59 cases, 27 were intercontinental. Nineteen of these involved European locations, whilst seven involved locations in Australia and one in Canada. The European countries involved were Austria, Belgium, Finland, France Germany, Luxembourg, Norway, Sweden and the UK. In Asia, the other 'ends' of these intercontinental cases were located in China, India, the Philippines, Sri Lanka, Thailand and Vietnam.

These cases shed light on some of the most widely publicised features of global outsourcing, including the implications for employment both in the developed 'source' countries and in developing nations.

A further ten cases involved relocations between Asian countries, as shown in Table 4.1.

These cases make the complexity of the new international division of labour that is emerging in information services visible. Not only are value chains often extremely complex, involving a series of steps in a variety of different locations; there are also major differences between Asian countries. Thus, *eg* whilst it may be possible to see India or the Philippines as a back office for Europe for some functions, it may be that Vietnam or Sri Lanka is in turn becoming a back office for the Philippines or India.

The more developed economies, such as Singapore or Hong Kong can be seen as behaving very similarly to their counterparts, in North America or Europe, in their roles as clients for eService companies elsewhere in Asia. Companies in less developed nations like India are also moving rapidly up the value chain and into intermediate roles.

Cost is not the only factor in intra-Asian relocations. There may also be considerations of scarcity of local expertise and a need to buy in services from specialist companies in another country, *eg* when a 'source' in Thailand accesses skills in Singapore.

Finally, seventeen of the cases involved relocations from one region to another within a single country. These comprised eight cases in India, five in Thailand, two in Indonesia and two in the Philippines. This type of inter-regional relocation is often seen by policy-makers as a way of spreading economic development from urban centres to rural areas, or from relatively prosperous regions to deprived ones. These cases are therefore of particular interest to those concerned with regional or rural development.

Table 4.1: eWork relocations within Asia studied by Asian EMERGENCE

source		destination
Cambodia	⇨	Thailand
Hong Kong	⇨	Philippines
Malaysia	⇨	India
Philippines	⇨	Vietnam
Singapore	⇨	Sri Lanka
Singapore	⇨	Thailand
Singapore	⇨	Vietnam
Thailand	⇨	Singapore
Thailand	⇨	Vietnam
Thailand	⇨	India

Source: Asian EMERGENCE project, 2003

4.2 Company size and sector

Approximately thirty per cent of the 'source' organisations involved in the case studies were large enterprises (with more than 500 employees) with the majority comprising small and medium sized enterprises (SMEs). The representation of SMEs among 'destination' organisations was even higher, with 47 coming into this size category. This accords with a picture of establishments in the business services sector as generally smaller in scale than their counterparts in the manufacturing industry and illustrates the way in which this new sector opens up opportunities for new enterprises to emerge.

The sector environment in which relocations took place involved, in most cases, the IT sector or IT enabled services, other common sectors included finances (banking, insurance), media (publishing, design), and telecommunications.

4.3 Functions involved in eWork relocation

The case studies involved a large range of business functions. These have been grouped below (in Table 4.2) under the general categories developed within the original EMERGENCE project. However, it is not always easy to fit the functions to these categories.

The 'creative' and content-generation category covers a broad spread of ICT-enabled applications ranging from design to research and development (R&D). Some of these functions, including R&D and web design, merge and overlap with software development activities.

Similarly, the growth of outsourcing of back office services and the digitisation of many traditional office functions has blurred many other functional boundaries. For instance, some management activities have devolved into specialist functions such as logistics and supply chain management; whilst others have become integrated into financial or HR functions. Whilst there are still requirements for dedicated high-volume data entry activities, these have also often become integrated into other data management functions, in some cases linked seamlessly with customer service or order processing. Similarly, customer services are increasingly integrated with sales. Even an activity like telemedicine (here defined as 'other') cannot be separated entirely from other functions. It forms part of a continuum with medical call centres and other call centres providing advice and information to the public.

Despite these difficulties of classification, it is clear that half the cases (29 out of 59) are concerned with software development or IT support. This dominance is in line with the results of the

Table 4.2: Functions involved in the Asian EMERGENCE case studies

Functional category		No. of cases	Total
Creative functions	Architectural drawing	1	*6*
	Graphic design	1	
	Web design	1	
	Detailing design	1	
	Research and development	2	
Customer service	Call centre	5	*5*
Software development and support	Internet service provider	1	*29*
	IT support	6	
	Software application testing	4	
	Software design/Database management	1	
	Software development	17	
Management and HR functions	HR/Payroll	1	*4*
	HR	1	
	Control of lighthouses	1	
	Digital construction support	1	
Financial services	Billing/Database management	1	*4*
	Finance processing	1	
	Payroll processing	1	
	Retail banking transaction processing	1	
Data processing	Content conversion	1	*7*
	Data processing	4	
	Digital map conversion	1	
	Medical transcription	1	
Sales and marketing	Marketing	1	*3*
	Online travel booking	1	
	Web marketing	1	
Other	Telemedicine	1	*1*
Total		*59*	*59*

Source: Asian EMERGENCE project, 2003

EMERGENCE survey, which indicated that these were the functions most likely to be outsourced and, in particular, most likely to be outsourced to Asia from Europe. It seems likely that, in the short-to-medium term, software development will continue to be the function most likely to be eWorked in this region of the globe, although other functions are expanding rapidly.

5. Moving East: Relocations of eWork From Europe to Asia

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This chapter draws on the work of both the European and Asian EMERGENCE projects, focusing exclusively on case studies involving relocation between Europe and Asia. Both projects involved in-depth case studies concerned with relocations of eWork between European and Asian countries. Each case study consisted of semi-standardised interviews with several participants from a 'source' and a 'destination' company. This chapter aims to pull together and compare insights from the EMERGENCE case studies carried out in 2000 and 2001 with the Asian EMERGENCE case studies conducted two years later. Two years is only a short time span, but in highly dynamic IT and IT-enabled services (ITES) sectors, several aspects of the international relocations have changed significantly. Besides describing these recent developments, the report will also study some of the issues that have remained relevant across the EMERGENCE and, the more recent, Asian EMERGENCE cases in more detail.

In the EMERGENCE project, five European-Asian case studies were carried out. Most of them were related to the relocation of software development from European to Asian companies (the *Secure*, *BioBelindus*, *Invest-Usindia*, and *Globecom* cases). The only exception regarding the function was the case of *Flighty,* a European airline which transferred its ticket data processing to India. All European-Asian cases had India as a destination country; no other Asian nations were involved.

In the Asian EMERGENCE project, 19 case studies of European-Asian relocations were carried out. In contrast to the EMERGENCE project, India was not the only destination country – although India is still a major location for IT and ITES. Nevertheless, European companies are also looking for alternative locations in other Asian countries. The Asian EMERGENCE project studied companies that had shifted parts of their activities to Vietnam, Thailand, Malaysia and Sri Lanka. The European 'sources' for these cases included the UK, Germany, France, Belgium, Austria, Norway, Sweden, Luxembourg and the Netherlands. The largest group of cases was concerned with

Table 5.1: Overview of cases involving a relocation of employment from Europe to Asia

Internal Relocation/Affiliate		**Outsourcing**	
Reduction	*Expansion*	*Replacement*	*Expansion*
Shore-Offshore Finance Sector Function: HR	*Data-Worldcentre* IT Sector Function: software development	*Flighty-Coup-Mum* Travel Sector Function: data processing (plus Partner as IM)	*ABC-Softec* IT Sector Function: software development (plus IM)
	Globecom: IT Sector Function: software development	*Maps-Consultant* Geographical Information Sector Function: digital map conversion	*EDL-MSC* Media Sector Function: software design
	Excel-E-Net Healthcare Sector Function: software development	*IMSecure* Finance Sector Function: software development.	*Travel Mode-Cody* Travel Sector Function: software development (plus IM)
	Space-East Star IT Sector Function: software development	*Townsetter-SIR* Publishing Sector Function: data processing, editorial	*Cordial-E-Save* IT Sector Function: IT-services
	Smarties-Smarties SL: Finance Sector Function: R&D		*Verbatim-Ranch* Telecom Sector Function: software development
Ivy-Ivy SL: IT sector Function: software development		*Architect-Globe:* Construction Sector Function: drawing (plus IM)	
		Belgie-Smoothy: Telecom Sector Function: software development	
		Bio Belindus: IT Sector Function: software development (plus IM)	
		May-Astral-Enclave: Service Sector Function: data entry and customer service	
		Invest: IT Sector Function: software development	
		Maximus-Sawdust: Multimedia Sector Function: 3D modelling	
		Mego-Momo: IT Sector Function: software development	
		Mogul-Solid: Finance Sector Function: software testing	

Source: Asian EMERGENCE project, 2003

software development. Other relocations involved creative business functions (such as architectural drawing), editorial work and back office processing. As in the EMERGENCE project, the cases show different patterns of formal ownership or contractual relationships — some European source companies moved work to Asia by outsourcing, with contracts ranging from four weeks to five years. Others established their own affiliates in an Asian country.

Table 5.1 gives an overview of the EMERGENCE and Asian EMERGENCE project cases, which will be analysed in detail in

this chapter. The case study companies have been nicknamed in order to ensure confidentiality. 'IM' signifies the involvement of an intermediary organisation.

Since software development is the most frequent function involved in the case studies, special attention will be paid to this activity.

The Asian EMERGENCE cases (for which the interviews were carried out in 2002 and 2003) offer a good view of the longitudinal aspects of relocations since many of them started in the mid- to late-1990s and went through several phases, often leading to an extension of the collaboration. Since this analysis is looking at the long-term development of the dynamics of relocation, a more detailed picture can be established than just considering one-off snapshots. In addition, a small follow-up to the EMERGENCE cases was undertaken: where possible, the original EMERGENCE case studies were updated in order to achieve a process-related view.

The 'longitudinal perspective' is of special interest because from 2000 to 2003 the economic background of relocations and outsourcing changed drastically. The original EMERGENCE case studies mostly highlighted the beginning and the first years of relocations to Asia, starting in the mid- or late-1990s. For most source companies, these relocations were their first experience of collaborating with foreign vendors and also served as an experiment for the viability of offshore relationships.

Between the end of the 1990s and the beginning of the new millennium, the European IT industry experienced a much-discussed shortage of IT skills. Many companies had difficulties in finding sufficient personnel to permit them to realise their planned projects and to expand their businesses. Especially in the cases of software development, internal bottlenecks caused by the western 'IT skills gap' were the paramount motive for the relocation of IT work to Asia. Relocation was therefore regarded as a means of realising planned projects that were perceived as not being possible with in-house capacity.

Starting around 2001, the scenario changed. There was an economic crisis in most Western countries**.** Many companies cut IT investment budgets, and the massive growth orientation of IT companies turned into downsizing efforts and more cost-oriented management. Still, the public proclamation of the 'end of the new economy' seems to have been exaggerated as well; the IT sector continues to be an economic growth area on a global scale — only the hype has gone.

These changes are mirrored in the labour market conditions for IT professionals. In 2003, many European and US American IT professionals experienced proportionally high unemployment — white-collar workers who some years ago had been a seemingly 'invulnerable' group of employees were particularly affected. The

'IT skills shortage' in Europe is no longer a significant problem — highly qualified IT workers are now looking for jobs. Furthermore, wages stagnated or even decreased during the last two years, making local IT workers relatively cheaper for companies to employ. With these changes, the major reasons that companies gave some years ago for the 'push' to relocate work to Asia have become outdated. How does this affect the decision of companies to shift work to Asia — or back to Europe?

Market data on international global outsourcing suggest that the trend of western companies to outsource IT and IT-enabled services to other countries will probably continue and grow further (Rohde, 2003 p.610). In spite of the worldwide economic slowdown, the outsourcing industry in countries such as India and Sri Lanka is still growing (for figures for India: see www.nasscom.org). The qualitative in-depth case studies of the Asian EMERGENCE project support this view at a micro level. Despite the fact that the former European 'push factor', the labour market shortage, generally no longer applies, most companies have not stopped outsourcing and have reverted to creating jobs in their own regions. The relocation of IT activities is still a deepening process — in most of the cases there is no significant recruitment of IT workers on the European labour markets. Accordingly, the motives of relocation have changed. In the course of some relocations the primary motive has shifted from labour market related motives to cost considerations. Once outsourcing has started, evidence from some of the Asian EMERGENCE cases suggests that there often seems to be no simple 'way back'.

Related to the continuity of relocations, there are some indicators of an increasing maturity of the international outsourcing market — at least in India, which plays a leading role in this business. Compared to the mid-1990s, more knowledge about relocations is available. Outsourcing no longer seems to be an exotic decision — the risks have been reduced since the experiences of other companies or contact persons have become accessible. As one marketing manager of an Indian IT services company put it, 'the India story by now is well sold'. The case studies show that the IT and ITES industries in India have undergone a process of increasing maturity and professionalism. Aspects of this are an improved ICT infrastructure, legal framework, and organisation-related learning effects. One example of this is Asian companies' establishment of marketing offices or intermediary organisations in western countries in order to facilitate marketing and interface co-ordination. As a result, there is a better basis for the smooth organisation of offshore relationships. From the clients' point of view, more options regarding potential vendors are available: in most cases, there is a variety of different potential partners and also different possible locations. India has a pioneering role in the 'eWork relocation market', but other countries such as Sri Lanka, Vietnam, and China are catching up successively.

As a methodological remark it should be noted that the case studies do not show a representative picture: in the selection of case studies, there may be a systematic bias toward more successful (therefore continuing or expanding) relocations. Firstly, it is not easy to find cases that have already been terminated. Secondly, most people prefer talking about 'success stories', making the availability of interviews about unsuccessful cases more difficult. The results reported here should be seen in this light; they can provide an insight into some dynamics, but they cannot make statements about the *quantitative* importance of different development patterns.

The dynamics described here show that in the research of international relocations the longitudinal perspective should be the preferred methodological approach. The research design of EMERGENCE and the Asian EMERGENCE projects permits a first glance at the process-related aspects of outsourcing. For a more thorough analysis, a more robust longitudinal design would be required.

5.1 Background and objectives of relocation

A look at the background and motives of decisions to relocate work reveals the changing conditions, which apply in relocations between Europe and Asia. The EMERGENCE report *Jobs on the Move* (Flecker and Kirschenhofer, 2002) analysed a range of different backgrounds and concluded that the cases could be distinguished along the following core dimensions:

- isolated measures versus more comprehensive company reorganisations
- reduction versus expansion strategies.

Some cases involved 'isolated rationalisation measures', implying that jobs were moved from a source to a destination company. One of these cases was the outsourcing of software development from *Secure*, a Dutch finance company, to an Indian software house. The relocation did not result in internal job losses — but the number of local IT consultants, who constituted about 50 per cent of the local workforce of *Secure*, was reduced. Another pattern, quite common especially in the IT sector, was the expansion of activities by outsourcing: 'We could not carry out all projects with our internal resources', was the reason given by *Invest*, an insurance company, for the outsourcing to a US-Indian software company. The lack of internal skills, which was sharpened by a local labour shortage, threatened to slow down important developments and thus triggered the decision to look for expertise externally. Such cases did not involve any local job loss at the source. A case of a more all-encompassing company reorganisation was *Globecom*. The software-oriented division of this IT company collaborated extensively with an Indian affiliate

whose IT experts constituted about 75 per cent of the whole division's workforce. The relocation was not even perceived as a relocation but as a necessary expansion in order to carry out projects: 'We want to let our business grow', was the main rationale behind the relocation of projects to the Indian unit — another expansive strategy.

Related to the different backgrounds of relocations, the EMERGENCE report *Jobs on the Move* identified a range of different motives for relocating eWork. The availability of labour and expertise was a motive frequently cited by companies relocating software development. Another important factor was the opportunity to cut costs, based on wage differences between regions. Most cases were characterised by a mixture of skills-related and cost considerations. But in contrast to the public discussion, the pure cost argument was in many cases less important than is often suggested — at least in the area of software development, much more emphasis was put on the availability of labour and expertise.

In some of the Asian EMERGENCE cases, there was a combination of cost and other advantages. For example *Mego,* a digital design company in the UK, outsourced software development and digital design aspects to *Momo* in Sri Lanka. Here the initial key motives were cost savings and the need to counter in-house bottleneck situations, but an interesting secondary benefit also emerged: a factor which *Mego*'s Managing Director named the 'Eastern imaginary', the Sri Lankan way of designing products in higher colour resolution, which produced an unexpected aesthetic effect, with which their clients were very happy.

Further rationales underlying relocations were cost savings through economies of scale and rationalisation processes — not so important an argument for relocating software development, but frequently used in relation to call centres or back-office operations. The *Flighty* case, involving a European airline carrier that outsourced its ticket processing first to an Indian and then to a CEE location, was one example of this. Sixty jobs at Flighty were lost due to the relocation (but this was internally solved without dismissals; employees were offered other jobs at *Flighty*). Reported motives for relocations were also linked to the desire to expand business into new markets. *Belie,* a Belgian company that outsourced software development to Vietnam, stated that alongside savings in development costs, the opportunity to create the preconditions to expand into the Asian market was also a crucial factor.

The Asian EMERGENCE cases also show a diversity of backgrounds and motives, which is similar to the original EMERGENCE cases. A highly complex pattern can be observed in the case of *Shore-Offshore*. Here, relocation is part of a company-wide reorganisation on a global scale.

Shore-Offshore is an international financial services company with about 28,000 employees worldwide and a strong market presence in Asian countries. In 2000, the top management decided on the global re-engineering of the HR function (described as 'resourcing, rewarding, learning'). The national HR departments' activities were to be centralised, national diversity reduced and duplications of effort diminished (*eg* the number of retirement schemes). Once standardised, the processes were digitised and centralised in *Offshore's* shared service centre in India to an Indian affiliate of *Shore*. Part of this two-year programme also involved the automation of many processes, allowing online self-service for *Shore* employees. In *Offshore*, 140 Indian employees are now working in the HR function. A great deal has been invested in the ICT infrastructure and the training of the workforce. Their activities are transaction processing, a call centre and analyses. There is a second Asian back office in Kuala Lumpur. To address risk considerations, the Malaysian centre may become a back-up-facility for the Indian shared service centre: 'The decision to go to India was relatively easy; the biggest decision was the risk issue: what does it mean if we are all in one place, *eg* if the system crashes or other things go wrong?' a *Shore* manager asks. *Shore's* remaining national HR departments have become smaller; their tasks are now mainly consulting and support for the Indian Shared Service Centre (resulting in an upgrading of the remaining jobs). A hundred HR employees of the national departments have lost their jobs. Those who could not adapt to the new circumstances had to leave.

Other relocations start as less complex projects – but some of them develop over time from 'simple' uni-functional moves into broader relocations. *Verbatim,* a UK-based developer for mobile phone messaging systems, initially intended to outsource only some aspects of software development work to *Ranch* in Thailand as a temporary measure. After successful completion of the work and a positive experience of collaboration with the Thai offshore vendor, *Verbatim* has not only decided to relocate further software projects there, but is also considering entering a joint venture with *Ranch* in order to broaden their mutual services and expertise.

The publishing company *Townsetter* started the relocation of typesetting as an isolated measure, which in the beginning did not lead to redundancies in the source company. After the first experiences with the outsourcing of typesetting, the arrangement evolved into a more encompassing mode of reorganisation – additional functions are now being relocated and staff members at the source have been made redundant:

Townsetter, a traditional publishing house in an old European university city, underwent a thorough transformation process in the late 90s. After years of being subsidised by the university that owned *Townsetter*, the publisher was internally evaluated and subsequently forced to act in a more price- and market-oriented way. Under the new competitive pressures, the management regarded global outsourcing as a 'nearly unavoidable' option to reduce labour and production costs, especially as they were aware that their main competitors followed the same strategy. In 1998, *Townsetter* started the relocation of typesetting to *SIR*, a small Indian company as an outsourcing partner. In parallel, *Townsetter* undertook the digitisation and standardisation

of the production process. The outsourcing started as an experiment but has five years later become a permanent solution that is being extended to other, higher value-added functions as well. In the initial phase, only a few jobs were affected. People were retrained for other activities. In 2001, the management decided to cut 60 jobs. Only a third of the employees accepted the offer of re-deployment in a different position at *Townsetter's* new Digital Services Department. Subsequently, work from the internal reading department was also moved to India; *Townsetter's* European reading department will be closed. Being sceptical regarding the limited competencies of its Indian partner *SIR*, *Townsetter* shifted parts of the work to a second outsourcing supplier, *PC Journals,* located in a different Indian State.

In some other cases, relocations were planned as 'isolated complementary measures' without any negative effects on the jobs at the source company. These cases were mainly related to the IT function and triggered by the IT skills shortage in the late 90s. The German IT company *ABC* outsourced the software development of a specific product to the Indian based software vendor *Softec*. The background was the lack of internal skills for the development of web applications. In 1999, the recruitment of IT experts on the local labour market was difficult. As well as the opportunity to overcome the IT skills shortage by outsourcing work, a secondary objective was the expected cost saving resulting from the German-Indian wage differentials. The contract was restricted to this particular project, and after some product enhancements and maintenance activities the outsourcing was terminated. Similarly, in the case of *Architect-Globe* the relocation involved access to additional resources in Asia which were not available in the source region:

Architect is an architectural company that is mainly active in the area of public buildings. The company mainly employs architects on a contract basis who are recruited through an agency. Partly because *Architect* is situated in a rural region, the recruitment of architects became increasingly difficult at the beginning of the new millennium — a condition that has not changed. In 2001, *Architect* was successful with some tenders, leading to the need to recruit additional personnel quickly. On the recommendation of a business partner, *Architect* decided to outsource the production of working drawings to the Vietnamese company *Globe*. Since the success of the first project, the outsourcing relationship has been expanded to three major projects and to additional activities such as 3D animation (enabling *Architect* to create quality-enhanced presentations). No jobs have been lost directly at the European source — but no new job vacancies have arisen there either; there is now a limited need for agency-based recruitment. In the view of some architects, in the long run the trend to relocate could have grave consequences for the profession, especially for new, inexperienced graduates.

The expansion of activities has been a main objective in some of the Asian EMERGENCE cases – at least in the initial phase of some software-related relocations. The main triggers in these cases were local labour-market shortages or the need for expertise in a particular field. Whereas this starting point is similar to the

findings of the EMERGENCE project, in the long run a shift of motives and relocation strategies can be observed.

Some cases that were originally intended to be 'expansion relocations' developed into 'replacement relocations' after the initial stage. Meanwhile relocations that were originally described as necessary for the growth of business (therefore indirectly creating or maintaining jobs in Europe) broadened. Availability of labour no longer seems to be the main motive for relocation; cost considerations have become more important and combine with the effects of an increased maturity of the Asian market. Whereas some years ago, the offshore model was in some cases the 'last resort' for companies in order to get their projects done, they now seem to rely more on the quality of Asian vendors, therefore enabling them to save costs without taking major risks. Even in cases where labour market shortages originally triggered the relocation of activities, the present availability of skilled workers in the local labour markets is not necessarily leading to a change of strategy. In many of the source companies, the number of jobs is reduced or stagnating — even when the business is growing. Relocation in this sense seems to be 'path dependent' — based on 'sunk costs' (investment in infrastructure and organisation), learning effects and increased cost efficiency, the original decision patterns have changed.

Cordial, a small company specialising in the sale of hardware and software in the Benelux States, started with the intention of outsourcing database management. The relocation has meanwhile been extended to software design and accountancy. All three business areas are carried out by the same Asian vendor, whose staff are being continuously trained to cope with new responsibilities, or new staff with the required skills sets are being employed. Originally the relocation was caused by lack of suitable IT staff and currently, despite an improved IT labour market situation, *Cordial* management thinks it would be pointless to change the existing relocation set up. The Sri Lankan operation, *E-Save*, has grown in terms of number of jobs and skills; in contrast, no major changes have occurred at *Cordial*, which still employs the same number of people. *Cordial's* director was very clear that, based on the allocated resources, commitment, planning and personal contacts that have been established between *Cordial* and *E-Save*, and that it would be a very complex process to reversibly change anything in the current set up. Thus, as the director put it 'I can't see any reason why we should stop using them'.

The original option of local recruitment is often not taken into consideration anymore. Relocation to other countries has become a first — not a second — choice for many companies, cost savings being an important motive. *Space's* managers were very clear that they needed to save costs, but were also interested in gaining access to semi-skilled staff that could be *'trained up how we wanted'*, as the company's director put it.

A sentence uttered by many interviewees was, 'Growth only takes place in Asia.' A clear shift from expansionary to reduction-

oriented relocations can also be observed in the case of *Ivy*, an international IT company.

> *Ivy* is a Swedish software company offering business software products. The R&D division employs 650 staff members, 300 of whom are located in Sri Lanka. The Sri Lankan affiliate, *Ivy SL*, was established in 1997. The main reason was the explosive growth of *Ivy* during this time. The company wanted to develop new products and badly needed IT professionals. 'We actually recruited any person with some sort of programming background.' This high demand for IT personnel could not be satisfied on the local labour market. The strategy of developing software in Asia was taken at top management level. China, India and Sri Lanka were considered as alternative locations but it was eventually decided to establish an affiliate in Sri Lanka: 'Many companies went to India. We wanted to be different', explains the HR director of *Ivy*. The actual software development in Sri Lanka started with 20 employees — a figure that had grown to 300 employees by 2003. *Ivy's* activities expanded continuously until 2000. When the economic crisis started, cost pressures grew. A hundred IT professionals in the Scandinavian units have been made redundant while the Asian unit is still growing.

5.2 The relocation process

5.2.1 Choosing a partner

The EMERGENCE case studies showed that the selection of partners and locations does not always follow the pattern of a systematic rational choice including a thorough evaluation of alternatives. The selection processes described ranged from a global call for tenders, including the comparison of potential partners, to the 'selection' of a known partner without systematic analysis. One observation — in contrast to the often location-focused public attention — was that the geographical location is sometimes not a paramount factor. In some cases the regional aspect is just a side effect of a company-focused choice. In these cases, location advantages only play an indirect role. The Asian EMERGENCE case studies similarly show a great variety of selection procedures.

In the Asian-European cases, partner selection via personal relationships or recommendations was of great importance. The systematic search for partners on the open market was less frequent. In the case of *Architect-Globe*, one of *Architect's* business partners recommended the Vietnamese company *Globe* as an outsourcing partner. 'Rather than shopping around, checking if they are competitive or seeing whether there were other companies doing something similar, we decided we'd try this company as it was recommended by word of mouth,' explained the chairman of the source company. Similarly, the possibility of relocation can be sparked coincidentally, as shown in the case of *Maximus,* where the director of the German source company was introduced to a representative of a Thai multimedia offshore

vendor at an international film festival. As a result of their chance meeting, 3D modelling was outsourced to Thailand soon afterwards.

Sometimes, decisions are influenced by the views of managers of a source company who bring in former collaboration experiences with a particular Asian company. This was the case with *Mogul*, a financial services company, where some managers already knew the Indian outsourcing partner. In the case of *EDL-MSC*, the personal contacts with an offshore company were even a basis for the decision to outsource at all. 'We would have been very reluctant to outsource so far away if we did not know somebody at the other end. It would have felt like a much higher risk,' explained the general manager of *EDL*. There did not seem to be any other option than the known company. 'We could not have outsourced to any other company or country because we did not know them,' said the strategic director. In some cases, personal experiences of source managers within a country, and also the nationality of management members, play a crucial role in partner or location decisions.

Personal relationships and knowledge of a region are considered to be a factor that can reduce the risks connected with outsourcing. Some Indian companies who establish intermediary organisations in Europe systematically bring the logic of personal contacts into play. The objective of these European affiliates is to create relationships and trust on the side of potential customers — or, as a *Softec* manager describes it, 'customer intimacy'. The background for this strategy is the knowledge that many European managers hesitate to outsource work because they fear going into a completely unknown field. Regional representatives can help to reduce these risk perceptions, guaranteeing that there is a person on hand who can ensure there are personal contacts and knows the source country's culture. In the outsourcing relationship between the German IT company *ABC* and the Indian *Softec*, the marketing activities of the German *Softec* affiliate were decisive for the partner selection: after personal meetings with *Softec* representatives, the *ABC* management did not look at other software suppliers more closely.

Trusted expatriate employees often play a key role in setting up and maintaining remote working relationships. For instance *Smoothy,* the Vietnamese subsidiary of Belgium-based *Belgie* was set up by a *Belgie* manager of Vietnamese origin who wanted to return to his homeland for personal reasons. His knowledge of the language and local environment played a crucial role in the success of the operation and was seen by senior management at *Belgie* as a way of minimising the risk.

In the Asian EMERGENCE cases, a factor for the selection of specific locations shows up that was not so apparent in the EMERGENCE cases: related to the extensive growth of the Indian

outsourcing market, there is some hesitation on the part of potential source companies regarding their own weight as client. Since many western companies have been relocating work to India, small clients in particular are afraid of being just a 'small fish' for Indian destination companies. The Norwegian IT company *Worldcentre* felt that they could be a very insignificant partner for Indian companies, owing to their small size, and that they would be competing with much bigger international software development companies. *Worldcentre* management therefore decided to establish *Data* as its own affiliate in Sri Lanka. Similarly, the management of the publishing company *Townsetter* decided to outsource the typesetting to *SIR*, a small and quite inexperienced Indian company: 'Looking at bigger places you felt you were a very small fish in a big pond and we wanted to learn with someone else and change things,' as the production director put it. The efforts of western source companies to be an 'important client' of Asian vendors sheds some light on the changing distribution of power between Western and Eastern companies. Some of the relocations to Sri Lanka and Vietnam have been due to conscious reactions to the scale of the Indian 'big pond' of outsourcing.

5.2.2 Decision process: involved actors

In some cases, the decision to relocate was taken at top management level — especially if the relocation was a major, long-term project. In the case of the finance company *Shore-Offshore*, the top management met the strategic decision to centralise and standardise the HR processes on a global scale. The relocation was planned and implemented carefully with eight project team members working on it. The process took about two years and was still not complete at the time of writing. In other cases, especially where only a small project was outsourced, the relocation started without a long and formal preparation phase. The decision process is influenced by the nature of the relocated tasks, their complexity and training requirements and the need for organisational adaptations. The *EDL* case involved the outsourcing of a clearly delineated project not requiring intensive collaborative efforts.

The British media agency *EDL* wanted to develop a website for a new product category. Christmas 2001 (a good selling opportunity) was approaching, but there was not enough capacity for an in-house development. 'We felt we were overloaded with work and thought if we outsource the mundane tasks our designers would have more space and time to do more important things,' states the technical director. On the basis of personal recommendations, the Vietnamese company *MSC* was chosen as an outsourcing partner for a project of a few weeks duration. The idea of outsourcing started off very informally. The possibility to outsource was discussed with the small design team that was to be relieved by the relocation of work. 'We talked about it and it was worth a try. No one seemed opposed to outsourcing, so it seemed a good idea to try' (technical director). The outsourcing was not intended to be permanent.

In most cases, the relocation of tasks was perceived as an important – or even a drastic – decision. Since for many companies this was their first experience of collaboration with an Asian partner, the initial project was often designed as an experiment that could be extended after a successful start. One exceptional case where outsourcing has become a routine process was represented by *Mogul*. In this company, no special reasons have to be given in order to decide on outsourcing. In *Mogul,* the relocation of work is a day-to-day-issue. The top management does not have to be involved in specific outsourcing decisions.

Mogul is a financial services company with worldwide locations and headquarters in the USA. Since 1999, the company has been following a comprehensive outsourcing strategy. The core activities — all management aspects, marketing and sales — are kept in-house, but for all other operational activities offshore relocations are preferred. As one respondent put it, 'What we are doing is extreme outsourcing.' The management gives wage differentials, greater flexibility (quick availability of expertise) and the saving on management and overhead costs as the general background for this broad outsourcing concept. One outsourced function examined in the case study is the testing of software developed for a new credit-card system by *Solid*, an Indian company. *Mogul* regards itself as a pioneer here, since testing activities are commonly kept in-house *'This is very unusual. Most companies keep quality assurance aspects like testing in-house but we think it is something that can be outsourced — and we have proven that it is possible … Our model is not to own any system ourselves but to get specialists hired.'* Not only is the software testing outsourced, but so also is the software development itself. This creates complex patterns of collaboration between *Mogul*, the software developing and the testing company. The top management did not have to be involved in the outsourcing decision and, given the common character of outsourcing, there was no official initiative.

5.2.3 Employee participation: almost absent

There are no unions in most of the source companies studied. But even in companies with employee representation, trade unions rarely played an important role regarding the relocation.

In the case of the publishing house *Townsetter*, where the outsourcing of the typesetting and additional functions caused the loss of 60 jobs, the management informed the union (representing 95 per cent of the workforce) at an early stage. But, as in other cases, the unions were unable to exert any influence on the core decisions. 'We were not able to change their minds very much in terms of the actual redundancy plans, only the redundancy packages,' one union representative explained. The union negotiated the conditions of internal job changes and redundancy packages. After it had become clear that the decision to relocate additional work to India was firm, the workforce accepted this as a given fact and the initial resistance gave way to the attitude 'We might as well get the best deal out of this,' as an interviewee said.

Similarly, in other cases the relocation was a 'hard fact' already decided upon by the management, and the unions just accepted it

as a business-driven development, their only remaining task being the negotiation of redundancy packages.

5.3 Organisational, technological and employment aspects of relocation

5.3.1 Facilitators and Barriers of Relocation

The original EMERGENCE case studies revealed a broad range of conditions facilitating the collaboration with offshore suppliers or affiliates doing eWork. Among the most important factors were pre-existing contacts between the partners and a clear delineation of tasks, including a high degree of formalisation and standardisation. The EMERGENCE report (Flecker and Kirschenhofer, 2002) described the involvement of workers in the preparation of the relocation and a learning oriented approach at the source company. Organisational changes and adaptations to the new division of labour were important process-related facilitators. Carefully prepared and well-managed knowledge transfer and training were also important factors.

These findings are supported by the Asian EMERGENCE case studies. A significant precondition for an efficient collaboration is a clear-cut division of labour between the partners and a high degree of formalisation. In the case of the financial services company *Shore-Offshore*, the relocation of the global HR Shared Services Centre to India could not have taken place at all without the worldwide standardisation and digitisation of HR activities. Similarly, the publishing house *Townsetter* started the digitisation of its production processes as a measure accompanying the outsourcing of typesetting to an Indian company. The case of *ABC-Softec* shows how the lack of formalisation efforts can impede an effective collaboration.

ABC is a German software company focused on products and solutions for businesses in the area of monitoring, quality and maintenance. In 1999, the shortage of IT workers on the local labour market during a phase of business expansion triggered the outsourcing of a software development project to the Indian company *Softec*. The work organisation at *ABC's* software development is quite informal. Planning requirements and documentation efforts are low — the company follows the 'idiosyncratic' or craft style of software development as opposed to a more formalised model. Additionally, the workload in *ABC's* IT department was quite high during the outsourcing relationship with *Softec*, leading to even less capacity for systematic project planning and structured implementation. 'There is too much work and too few people. Everyone is overloaded. And for everyone work is not properly defined,' explained a software developer. From the Indian perspective this posed some challenges to the working relationships. The working style of the Germans was described as chaotic and unstructured. This affects how requests for changes are dealt with, for example. 'Usually, if something changes, you write down the impact of the changes. On the *ABC* side, it was like, you

receive a request and start coding it immediately, start changes. Whereas we invest some time in thinking about the request, how it can be done? Is it OK? What time is required to do this change?' an Indian software developer explained. 'Our contact person at the customer's gets new ideas almost every day,' complained the account manager. *Softec* is a CMM level five certified company and therefore forced to work in a very structured way. *Softec*, while strictly adhering to the CMM standard processes, could not demand that the clients should adapt their procedures to the CMM standard. To solve this problem, the *Softec* project manager prepared documents for each request from the *ABC* contact person (including a preview of the possible consequences) and asked him for confirmation. With these additional efforts, the outsourcing partner compensated for the lack of structure of the client. The customer felt comfortable: 'Everything is going in a very structured and well organised way at *Softec*,' as an interviewee of *ABC* put it.

Language barriers and intercultural differences are still a significant barrier in some of the relationships. Regarding intercultural aspects, interviewees describe the politeness of Asian partners, in particular, as sometimes leading to misunderstandings. Especially in cases where Europeans expect a clear answer — possibly a 'no' — the Asian colleagues would sometimes give answers that were difficult for a European to interpret. 'When someone at our Indian supplier *Solid* says 'yes', it does not mean 'yes, 100 per cent', but 'I will try',' one respondent explained. Some people at source organisations complained that they often get ambiguous answers — or no reply at all. At *Travel Code*, a British travel agency outsourcing software development to Sri Lanka, a British website tester explains that the answers she gets tend to be '… a bit vague. Sometimes we ask for something and they say "okay", but never seem to indicate a clear "when". So we are never too sure what to expect.' Similarly, the role of hierarchy in Europe and Asia is perceived to be quite different. Some Europeans perceive people from Asian countries as more oriented towards hierarchical positions and superior-subordinate-relationships. A manager at the Swedish IT house *Ivy* perceives this submission to hierarchical authority as an advantage: 'in Scandinavian companies every staff member can have their say and this even on a very junior level — and perhaps things are discussed more than you want. But in Sri Lanka once you have decided what to do, it goes very, very quickly. They don't question everything as much as we do here.' In contrast, other interviewees said that they find that the hierarchical orientation makes efficient 'horizontal collaboration' between members at different hierarchical levels more difficult, impeding open discussion and the clarification of problems.

Some of the European partners are very aware of these differences and try to analyse their own behaviour. In the collaboration between Norwegian IT company *Worldcentre* and its Sri Lankan affiliate, the Norwegian way of saying things was sometimes perceived as 'harsh' by the Asian partners, leading to unintended offence. The Scandinavians therefore try to be very careful about

the way they express themselves verbally or in emails. One possibility to make things easier is personal knowledge: face-to-face meetings often increase mutual understanding and reduce intercultural differences.

An important basis for a good collaboration is the existence of tacit knowledge — a condition that does not always exist owing to the geographical distance and differing business cultures. As opposed to explicit knowledge, the creation of tacit and experiential knowledge takes much more time and effort. 'We definitely underestimated the knowledge transfer effort. Before the shared service centre, each transaction was done in each country, each city, each branch. This means there is a lot of intelligence that sits in people's heads and has never been documented,' is how a *Shore* manager described the need to put some effort into knowledge building. Most companies try to facilitate the development of tacit knowledge by means of training visits — ranging from weeks to one year — at the partner's site. The British company *Architect* invites to Europe staff members of the Vietnamese outsourcing company *Globe* who are doing the drawing for *Architect's* projects: by visiting the construction sites, the Vietnamese project members gain a better knowledge of the building. On the basis of this 'real' experience, it is expected that the Vietnamese team will be able to make the theoretical drawings much more realistic. In the case of the Swedish IT company *Ivy* and its Sri Lankan affiliate *Ivy SL*, more and more tasks — including complex projects — are being shifted to Sri Lanka. But in some cases this exceeds the capabilities of the Asian staff members: interviewees estimate that it can take years to learn *Ivy*'s applications and 'to understand the components underneath the surface'.

Tacit knowledge is connected to people. In many cases, its continuous creation is impeded by the lack of personnel continuity in India and Sri Lanka. As in the EMERGENCE project, where a manager of the IT company *Globecom* said, 'as soon as we have developed a person, he will leave,' some companies are confronted with a continuing problem of attrition. At the Indian typesetting company *SIR*, supplying the publishing house *Townsetter*, training effects last only a short time, since the retention of personnel is low. In some other cases rapid growth makes the creation of a stable knowledge base difficult. At the Swedish IT company *Ivy*, the rapid extension of the destination company causes problems. Because new Sri Lankan programmers are continuously joining the Asian affiliate, the Swedish colleagues frequently have to deal with new people and have to explain many things over and over again. The new Asian staff members' lack of experience means that the Swedish are confronted with poor quality of work and, especially when combined with the job cuts in Sweden, this contributes to a lot of resentment and frustration. The financial services company *Shore* faces a similar situation: young people are moving into managerial positions without having much experience. '*These are*

stressors of an organisation growing too fast; people move into jobs they cannot actually do,' a HR consultant explains. This lack of tacit knowledge turns the relocation of high value-added activities to Asian partners into a risky measure.

An increased professionalism and learning effects are observable not only on the side of Asian service suppliers, but also on the client's side. Compared to the beginnings of some relocations, over time some actors have developed more realistic expectations about outsourcing. 'In the beginning we thought that all Indians were software gurus;' one German engineer describes his naive perception in the starting phase, which subsequently evolved into a more qualified picture. Most of the destination companies are prepared to adapt to the needs of collaboration and to establish internal rules and procedures in order to collaborate with the remote suppliers effectively. This includes the setting up of co-ordinating roles, of additional specification activities and a changing division of labour and responsibility between source and destination. In the case of the IT company *Ivy* and its Asian affiliate *Ivy SL,* the division of labour in the initial phase of the relocation was reviewed and changed. This was done in order to achieve more realistic estimates during the specification phase of software projects, the Sri Lankan staff members are now involved right from the beginning, whereas previously their activities started only in the implementation phase.

Despite all these efforts at organisational improvements and training, the relocation of work is in many cases connected to some decrease in control: actors at the source company do not always know who is working on the other side, whether the destination company is doing other things in parallel, or why communication is sometimes slow. Some ambiguity and unexplainable 'communication breakdowns' seem to be an unavoidable part of many relocations. *Excel* a Belgian software developer has permanently relocated some aspects of development work to a Sri Lankan offshore vendor, *E-Net*. *Excel's* director reported that it took them two years to facilitate effective communication between source and destination companies and there is now great relief that the continuous efforts to increase the flow of communication ' are finally paying off'.

5.3.2 Trust-building and bridging: the role of intermediaries

In the original EMERGENCE cases, there was relatively little involvement of intermediaries, though they did play an important role in a minority of cases. In the Asian EMERGENCE cases, the role of intermediaries seemed more important. Indeed, a pivotal role is often played by intermediary organisations and individuals acting as facilitators for offshore relocations. In many cases, these intermediaries supported the decision to relocate and also the collaboration itself.

In most of the case studies, bridging people, often expatriates, played a central role in the development and co-ordination of relocations. A context of international migration therefore provides a competitive advantage for companies involved in the relocation of eWork. Most expatriates develop dual orientations — an understanding of both the cultures and national business environments they are dealing with. This makes them important facilitators, problem solvers and 'points of reassurance'.

In the UK office of the Sri Lankan software house *Cody*, a Sri Lankan data administrator contacts the Asian software location on the client's behalf if any problems arise in a project. The Sri Lankan founder of *Cody* spends his life commuting between his home country and the UK. He manages *Cody's* European office while his brother manages the Sri Lankan office. In the case of the British financial services company *Mogul*, a manager of Indian origin gave intercultural training lessons to his staff members at the source company, explaining potential cultural differences and ways to overcome them. In the international IT company *Data-Worldcentre*, a Norwegian manager works as a permanent consultant in Sri Lanka. 'It is more convenient. If there are problems, he will be the person for whom it is easiest to identify the cause of the problem and solve it,' says a project manager. Another function of European bridging people in Asian companies is to create trust that the expected quality standards will be maintained. *Globe* employs two expatriates from the UK who are regarded as indispensable to ensuring high standards and *Smoothy* is managed by a Vietnamese former employee of the parent company, *Belgie.*

At an organisational level, an increasing number of Asian companies have established European affiliates (in one case, the ownership structure is the other way around: a European company — serving as marketing office — has established an Asian affiliate). These units serve as marketing and sales offices and also as intermediary organisations, connecting western clients with Asian suppliers, and bridging the intercultural and communication gap. A basic effect of European units being close to the customer's location is the creation of trust. In the EMERGENCE case of *Bio*, a Benelux IT company outsourcing software projects to the Indian company *Belindus*, the relocation would not have taken place without the existence of a European unit. *Bio* and *Belindus* are situated in the same rural region in Belgium. The CEO of *Bio* even knew the co-founder of *Belindus* personally: they came from the same small city in Flanders. 'After all, outsourcing work to India is a very drastic decision. There is a big distance between Flanders and India, in the literal and figurative sense, and in this respect, it is very important to have the necessary ties, to understand each other, to have the same business mentality. Without the already existing connections, *Bio* would not have engaged in its Indian adventure that rapidly.' Similarly, the German software manufacturer *ABC* only

outsourced a project to the Indian *Softec* after having met the German managing director of the German *Softec* office. Even when remote sales from Asia might theoretically be possible, some European clients still regard outsourcing to Asian companies as an adventure. The establishment of an intermediary unit in the customer's region is therefore an important competitive advantage. But for some small Asian companies this strategy is too expensive and therefore not feasible. The marketing manager of *Solid* therefore relies on the growing reputation of the Indian service industry: 'Since the India story by now is well sold, it is now really a question of letting the people know that our service exists.' His company does its marketing via a website.

The *Architect-Globe* case shows that besides the initialising and trust-building function of the intermediaries, they play a key role in facilitating the co-ordination and the flow of information between the European source and the Asian destination.

Globe, the Vietnamese supplier of architectural services, started its operations from Vietnam. After the first projects, *Globe* found that the direct collaboration between western clients and Vietnamese staff members did not work well. The direct communication between source and destination involved a lot of phone calls, and large numbers of emails that were sent back and forth, resulting in many problems, delays and communication breakdowns. By establishing offices in the UK and employing two architects there, the clients were relieved of communication efforts, since they could communicate their needs to the UK representatives. In the long run, when the relationships between a particular client and *Globe* intensify, an increase in direct communication between European source and Vietnamese destination is expected, as the actors become accustomed to the different culture and can build mutual trust.

Most intermediary organisations are quite small units – employing from about five to ten people: marketing and sales staff, administration and, sometimes, technical experts.

The German affiliate of the Indian software house *Softec* employs about ten people. Most of them are responsible for marketing and sales and for the co-ordination of projects (account manager). Besides customer relationships, the members of the German *Softec* unit also take care of Indian onsite programmers who work on the client's premises for a limited period of time. This involves a lot of extra effort since there is no HR position at the German *Softec*. The assistant, the managing director, the account managers — many of the staff are involved in the on-site developer's affairs, ranging from airport pick-ups to insurance issues, from housing matters to appointments with a dentist. The HR manager of *Softec's* headquarters in Mumbai, who is not able to arrange these things from India, explains *'Searching [for] an apartment is an extra job for them to do because they are expected to perform. They are supposed to work on sales, marketing, whatever. And this is something in addition to that. But I think this is part of the reality, if you have a very small set-up there.'* Part of the concept is that there is always one Indian account manager working in the German unit.

Intermediary organisations and people are expected to bridge existing communication and intercultural gaps between the locations involved. The establishment of intermediary organisations in Europe and the international mobility of expatriates are not completely new – it was already possible to observe this in some of the EMERGENCE cases. But there seems to be an increase in 'intermediaries', based on learning effects and experiences with former collaborations and leading to a higher degree of professionalism in offshore collaborations. The offshore business has also generated new opportunities for consulting companies and service providers working as brokers between Asian and European companies. No independent brokers were found in the cases studied here; all intermediary organisations were affiliated to the Asian companies.

It seems likely that in the future intermediaries will play a particularly important role in enabling SMEs to access global sources of eService supply. Whilst large companies can afford to experiment on a project-by-project basis until they find a good supplier, SMEs often have 'all their eggs in one basket' and cannot afford such risks. Intermediaries help to reduce the risk and develop relationships of trust.

5.3.3 Technical Aspects: Facilitators and Barriers

ICTs are the core working instrument in many of the European-Asian relocations – especially because most of relocations concerned software development or related activities.

In nearly all cases the importance of email as the main communication instrument was emphasised, combined with phone calls (rarely: videoconferences) and also personal mobility (travelling to the partner's site). Some interviewees stated that often the combination of written and oral communication is important. Informants at *ABC* and *Softec* told us that they generally discuss complex matters over the phone. After this, the *Softec* personnel always send the client a documentation of the discussion by email for confirmation. 'Our clients just tell us whether what we understood is right or not.' This is considered to be very important in order to confirm the results of discussions and to make sure that no misunderstandings arise. In some cases, especially those involving transfer of very large amounts of data, data is stored on CDs and delivered via mail. *Maps,* specialising in digital map conversions, consider this as the most useful way of ensuring effective communication between the Indian destination and the French source organisation.

Companies using a common ICT infrastructure or the same systems describe this as an important facilitator. In some cases, the use of a particular software application can have far-reaching consequences:

In the initial phase of relocating the typesetting to India, the publisher *Townsetter* used its own proprietary typesetting software. This implied that the outsourcing supplier had to train his people in this particular software, creating a tight or nearly exclusive relationship between *Townsetter* and *SIR*. Some years afterwards, *Townsetter* replaced this in-house software with a standard off-the-shelf application, enabling the source company to outsource the typesetting to other companies as well. *SIR* has now become replaceable and already has lost part of its business to another Indian company.

Security considerations mean that some companies have started using secure lines instead of the Internet for the exchange of information.

As was found in the original EMERGENCE project, infrastructure problems are still a common problem. This was especially the case in newcomer countries such as Vietnam and Sri Lanka where some interviewees complained about 'bad lines', problems with bandwidth and breakdowns, leading to delays and interruptions in the working process. The people collaborating in *Worldcentre* between Norway and Sri Lanka therefore use mobile phones in urgent situations. Most Asian companies studied here buy their own power generator in order to guarantee a stable electricity supply. Following public reports, Indian infrastructure capacities have improved — but based on this limited number of case studies it is not possible to judge to what extent.

The EMERGENCE project finding that mobility is not entirely replaced through eWork is still valid: relocations of eWork often lead to an increasing 'movement of people', given the necessity to meet face to face, to train each other and to establish 'bridging personnel' abroad.

5.3.4 Job effects of relocations

Job effects in source companies: moving targets

Relocations of eWork are not necessarily connected with job losses or redundancies in the source organisation. As the original EMERGENCE report noted, relocations of the expansionary type often lead to additional jobs in destination countries without negative job effects at the source organisation, especially if they were triggered by the need for expertise in a particular area or by local labour shortages. This was the case at the international IT company *Globecom*, which established an IT workforce (about 1,100 people) in Bangalore in order to be able to carry out all its planned projects. Similarly, outsourcing enabled the Belgian IT company *Bio* to realise a growth of business. Many of the Asian EMERGENCE relocations started from the same background: they were driven by the opportunity to expand the business activities and by a lack of in-house resources. At the end of the 1990s, the German IT company *ABC* was able to realise new web applications more quickly with the aid of a *Softec* Indian software

development team. Similarly, the availability of IT skills underlay *Data Worldcentre's* decision to establish its own affiliate in Sri Lanka. An expansionary type of relocation can also occur when companies in the 'traditional' sectors need special IT expertise for a particular project. The case of *Travel Mode*, a British travel agency, is one example of this:

> *Travel Mode* saw itself confronted with growing competition in the travel market during the 1990s. The importance of face-to-face contacts with clients decreased, while more and more people preferred the online booking of travel services. *Travel Mode* decided to redesign its front and back office operations, ensuring that flights, hotels, package tours and other travel products could be booked via the Internet. The company wanted to develop unique travel software that would suit *Travel Mode's* business better than the standardised software on offer. The in-house development of this software was not an option; the development of unique software in the UK would have been too expensive. The only alternative to outsourcing would have been the purchase of off-the-shelf software. Supported by the existence of an office of the Sri Lankan software house *Cody* close to *Travel Mode's* office, the decision was made to outsource the software development. It is planned to terminate the relocation after the completion of the project — except for some maintenance and enhancement activities. The relocation itself will not have any job effects at *Travel Mode*, but the implementation of the online booking system will lead to job-related changes that have not yet been systematically estimated.

However, this is by no means the universal story. Contrasting with the expansionary types of relocations, in some companies the reduction of jobs at the source companies is officially planned right from the beginning. This concentration strategy was followed by the financial services company *Shore-Offshore* where the centralisation of the global human-resources management was a major top-down project, including the downsizing of national HR departments, the automation and relocation of activities to an Indian shared services centre in Chennai. About 100 jobs in the national HR departments were lost, while in Chennai 140 jobs were created. In contrast to such open reduction-oriented policies, in some other cases job losses were a gradual effect that was not intended at the beginning. Some of the cases that started as expansionary relocations developed over time to become replacement relocations. The Asian units, in the beginning an addition to the western workforce, became competitors in the long run. The IT company *Ivy* is an example of changing external conditions leading to subsequent job losses at the source organisation.

> During the 90s, the Swedish software manufacturer *Ivy* wanted to develop some new products but was not able to recruit sufficient new IT experts on the local labour market. In order to be able to realise the business plans, an affiliate in Sri Lanka was established in 1997. In the initial phase, up to 2000, all R&D staff members were needed to implement projects in a phase of excessive growth. After this phase, *Ivy* was affected by the market crisis and sharp cost pressures. As a

consequence, 100 IT professionals had to leave. Most of them had difficulty finding another job on the local labour market. The Sri Lankan unit is supposed to become more important in terms both of quantity and quality: growth only takes place in Sri Lanka (at present already doing 50 per cent of R&D in *Ivy*). 'We can employ more people in Sri Lanka and still cut costs,' says the senior R&D vice president. The Sri Lankan unit is also assuming more responsibility for complex projects. Internally, the job reduction has led to tensions between Swedish/European and Asian employees. There is much resentment among the Nordic staff members towards their Asian colleagues owing to the continuing job uncertainty. 'Sri Lanka will take over,' is a comment uttered in this context.

In line with Swedish labour law, during lay-offs the rule of 'last in, first out' is applied in redundancy situations. Under this regulation, some key personnel had to leave the company, leading to a loss of important knowledge at the source. The *Ivy* management has now been forced to relocate some 'really difficult tasks to Sri Lanka, which they really cannot cope with,' as a senior designer points out. The relocation-triggered redundancies therefore had some unintended consequences, relocation 'by force' leading to even more relocation.

The loss of jobs is not always connected with redundancies. In some cases, companies offer new jobs or internal re-training to the employees who lose their former positions. 'We expect them to take their share of the changes or go somewhere else,' explains an IT manager of *Invest*, where after the start of the outsourcing the original software development tasks decreased while business analysis and project co-ordination was required from former software developers. In the case of *Invest*, about half of a team left the company after the relocation because they wanted to continue developing software. Similarly, in the other cases, it is mostly only some of the employees who are willing and able to adapt to the new circumstances.

In *Townsetter* where typesetting and also reading have been relocated to Indian companies, employees were asked either to accept a voluntary redundancy package or accept redeployment in the new Digital Services department. This department now mainly carried out administrative and support functions for the relocated work. Only about 20 people accepted this offer; 40 employees left. The employees affected were mainly about 40 years old and had been with the same company for many years. A union representative criticises the fact that these employees were not given a real chance to adapt to the new conditions. 'There was a clear message from the management to the workforce saying 'if you do not change, you will lose your job'. But they were not given the opportunity. It would have been fairer to have us called in earlier so that we could have helped with making the workforce more flexible.'

From a European labour market point of view, apart from direct job losses the cumulative effects of the lack of job-creation in Europe is important: 'Growth now only takes place in Asia' is an oft-repeated statement by interviewees in the source organisations. In most cases, when the Asian destination companies have reached a certain level of professionalism,

additional activities are directed to the Asian location. The creation of new jobs at the source companies is generally not even considered. The German IT department of *Invest*, a financial services company, started to outsource software projects to Indian companies three years ago. What began as an experiment in the viability of the offshore model, has now become a permanent solution. While the business of the IT department has been growing continuously, the workforce at the source has stagnated. Each extension of tasks is directed to one of *Invest's* two major outsourcing partners. 'The only boom in the IT industry is in outsourcing,' explains an *Invest* IT manager. An example, which at the same time shows the complexity of job related effects, is the Norwegian IT company *Data-Worldcentre* relocating work to its Sri Lankan affiliate.

During the 1990s, *Data-Worldcentre*, a small company with about 30 staff, was not able to recruit sufficient IT experts on the local labour market. The company could not employ enough developers to meet customer demand. After considering Russia and India as alternative locations, it finally established its own affiliate in Sri Lanka in 1999. After the first years of collaboration, the relocation was evaluated as being altogether positive — despite some difficulties and quality problems. The Asian affiliate started with three staff members and now employs 45 IT experts. In the Norwegian unit two additional people were employed in marketing and administration. The Norwegian staff were 'freed' from software development and are now mainly responsible for client consultation and quality monitoring of software coming from Sri Lanka. There will be no further recruitment of software developers in Norway, whereas the Asian software unit is intended to grow further. At the same time, this is perceived as a condition that allows more growth in Europe, since the easy expansion of the Sri Lankan work force allows *Data-Worldcentre* to take on more clients than before. This may lead to additional project management staff in Norway — but probably in very small numbers.

There is a form of 'silent downsizing', especially in IT departments at source organisations, which is not visible at first glance: in some cases employees are not affected by job losses, but the number of external IT consultants working at the source's premises decreases. This was the case at the Dutch financial services company *Secure*, where external IT experts from the local labour market constituted about 50 per cent of the local workforce. Similarly, at the German IT department of *Invest*, an international financial services company, the role of German IT experts working on a contract basis became less important.

Not all the cases studied developed into replacement relocations. There are also some relocations without long-term job effects. The German software company *ABC* terminated the outsourcing relationship to the Indian *Softec* after the completion of a project — leaving it an open question whether there may be further collaborations in the future. Similarly, the British multimedia company *EDL* regarded the outsourcing of a website design as a one-off project, not leading to major internal effects; likewise the

case of the UK travel agency *Travel Mode*. There may be more comparable cases of relocations that do *not* develop into broader solutions, endangering jobs at the source — but the small number of case studies means that no statement on their quantitative relevance can be made here.

Qualitative job changes

Besides quantitative job effects, relocation of eWork often changes the nature of jobs. The case studies show different patterns of up-grading and down-grading, creating 'relocation winners' but also some 'relocation losers' who do not necessarily lose their jobs but their former responsibilities.

In many EMERGENCE and Asian EMERGENCE cases an up grading of the remaining jobs was observable. Employees who had formerly been responsible for operational tasks are now managing, supporting or supervising the operational work that is now carried out remotely. The employees' reactions towards these changes differ. In many cases the remaining employees welcome the up-skilling. In the Norwegian IT company *Data-Worldcentre* the former software developers are now called 'project managers'. The interviewees felt pleased about the fact that they are now less involved in development work but have more contact with clients and more co-ordinating tasks. The case of *Shore-Offshore* shows a clear picture of 'winners' and 'losers' of the relocation-induced job effects.

> At *Shore-Offshore*, where the company-wide HR processes were partly automated and partly centralised in India, the nature of the remaining HR jobs has changed drastically. The HR employees are now working in strategic teams and in 'centres of expertise' which have the task of designing and implementing new HR processes or online learning initiatives and to support the shared services centre in India. The qualification requirements changed substantially. The skills needed to become a 'new HR person' are mainly soft skills such as communication skills, analytical thinking, and strategic planning. 'The image of a nice lady with a personal touch answering your query at your own branch is not there anymore,' a HR manager points out. Especially female employees aged over 40 lost their jobs. *'People were given the chance to change but I am afraid if a person does not possess the skills needed, we have to let this person go,'* a manager explained. Another respondent criticises the 'change management', saying, *'I think administrative people were let go too soon. There needed to be a comfort zone to bridge the transition period and for the people to have more safety.'*

The remaining jobs at the source organisations are often perceived as attractive progress on a career path. But in some cases, the employees do not like the 'upgrading' of their activities. In the German IT department of *Invest* some employees left the company voluntarily because they did not want to fit in with the new demand for 'business analysts'. These employees preferred to work as software developers, declining the new job description.

'There are developers who want to stay developers all their lives. Someone who wants to be a developer always wants to work on large-scale, innovative projects. Because of outsourcing this is no longer possible,' says the IT manager. Similarly, in the architectural company *Architect* some people do not like being 'freed' from the mundane tasks such as doing the working drawing. One project architect still prefers to do all the drawings himself rather than using the outsourcing to Vietnam.

The newly emerging jobs at the source organisation are not always attractive; some are characterised by a downgrading compared to the former tasks. At *Townsetter*, former typesetters and readers have been redeployed in the new digital service centre supporting the Indian unit. This is connected to a great deal of administrative and computer work, the handling of spreadsheets and so on. This work is 'less interesting and more standardised' than the original work, according to a union representative. The union negotiated a deal that these employees would at least not lose money as a result of the internal re-deployment and its accompanying downskilling.

Destination companies: desired jobs and rapid growth

Nearly all the Asian companies studied here have grown rapidly in recent years, predominantly creating new job opportunities for young IT experts or graduates. *Cody*, a Sri Lankan company developing an online booking software package for a UK travel agency, started in 1999 with two staff members and now employs about fifty people, 12 of them working for the UK travel agent. Mainly new graduates from the universities are recruited, since the company hopes that this makes the retention of personnel easier. The average age of the staff members is 24. The wages are low by international comparison, but very high compared with local Sri Lankan rates. The findings of other cases are similar. The Sri Lankan affiliate of *Ivy,* the IT company, started in 1997 with 20 employees. Since then the workforce has grown to 300, a figure that is expected to grow further. The Indian software testing company *Solid* now has 240 staff members and plans to expand its workforce to 400. The project team working for the UK client *Mogul* started with two team members in 2001 and has now grown to ten. The Sri Lankan affiliate of the software house *Data-Worldcentre* started with a staff of three and now employs 45 graduates.

Most interviewees emphasise that the job opportunities in global projects are very attractive in the regional context — the companies are able to offer wages that are highly competitive by national standards. Some highly qualified IT experts are willing to do fairly routine work too. Most companies can select job candidates from a large pool of applicants, but competition between companies for experienced workers in this field means

that in some cases it is difficult to retain staff, especially in IT 'hot spots' such as Bangalore.

5.4 Evaluation and time perspective

5.4.1 Cost-benefit Analysis: 'quality is not paramount anymore'

Most of the source companies evaluate their relocations regularly. Some assess the relocations quite informally, *eg* at quarterly review meetings. The managing director of the UK travel agency *Travel Mode* thinks that at present a general periodic overview of the outsourcing relationship is sufficient. 'There is no real, formal cost-benefit analysis. We can see the benefit the software will eventually bring to our group and also how much cheaper it is to have the work done in Sri Lanka.' Other companies such as the financial services company *Mogul*, which practises 'extreme outsourcing', apply more elaborate procedures, including balanced scorecards and a systematic comparison of different vendors. Mogul has professionalised these comparisons in a way that enables the offshore vendors to profit from the transparency and the performance-related feedback on offer. Additionally, *Mogul* uses these comparisons for a 'squeeze in billing', as a representative of the testing partner *Solid* points out.

In terms of benefits, the most common advantages of relocations are cost savings, flexible access to labour and specific skills, and in some cases higher quality too. Some source representatives estimate that the cost savings through relocation are about 30 per cent. Others think that the cost advantages are lower, since relocation requires additional co-ordination and monitoring efforts. Some interviewees expect these efforts to diminish in the future as the collaboration becomes progressively more efficient. The chairman of *Architect* explains that the outsourcing has produced cost savings, but that this was a secondary aspect compared to the increased flexibility. Since the recruitment of qualified workers on the UK labour market takes a long time, one main advantage for *Architect* is the opportunity to respond quickly when new projects come on stream. The collaboration with the Vietnamese outsourcing company *Globe*, which does the drawings for architectural projects, enables his company 'to turn the tap on when you need it and switch it off when you don't need it.' Some source representatives think that the cost savings through relocation have allowed them to do things they could not have afforded in Europe. The travel agency *Travel Mode* would have been forced to purchase off-the-shelf software if there had not been the possibility of having a custom-built system developed by the Sri Lankan company *Cody*. The UK company *Architect* has only been able to start giving 3D-presentations and animations since their Vietnamese offshore partner supplied them with these services. Some of the source companies consider the quality

delivered by the Asian destination organisation to be superior. The financial services company *Mogul* is very satisfied with the output of the Indian company *Solid.* Since *Solid* specialises in the planning and execution of software tests, 'the quality of software that comes out at the end is far better,' says an interviewee at the source organisation. Similarly, in the *Secure* EMERGENCE case study — a Dutch financial services company relocating software development to India — the quality of the output is higher than before (more software releases and a sharp drop in the defect rate).

Still, in many of the cases quality problems are described as an important disadvantage of the relocation. In the collaboration between the Sri Lankan affiliate of the Swedish IT company *Ivy*, much work that has been carried out in the Sri Lankan unit needs to be redone since the outcome is unsatisfactory — a quite cost-intensive process. Sometimes these problems are regarded as transitory, especially when the gradual development of more tacit knowledge and the improvement of efficiency seems probable. At *Ivy*, a successive knowledge building of the Sri Lankan unit is expected. This attitude also prevails at the financial services company *Shore*. *'The credibility of HR is decreasing right now, but I do not see this as a problem yet, but more as transition issues that will be ironed out soon,'* a national HR representative who is an internal customer of the new Indian shared services centre explains. *'We are increasingly looking for more from India, we now need to look at an organisational structure that would support and optimise what they actually can deliver,'* says another *Shore* manager. In other cases, quality problems seem to be of a more general nature — one reason for this is a high attrition in many Asian companies, leading to a continuous loss of experiential knowledge in the destination companies. Quality problems can also be caused by a primary orientation on costs.

The publishing house *Townsetter* chose a cost-reducing organisation of the reading function in the knowledge that this would probably entail a loss of quality. For cost reasons, documents were to be copy-edited by the Indian destination companies without being checked internally anymore. *Townsetter* would rely completely on the output of their Indian outsourcing partners. 'We know that quality is going to slip. The crucial question is how far we are prepared to let it slip and how far our customers are prepared to let it slip.' Another interviewee stated: 'I am very worried about the future quality, the company's reputation and what customers think about us.' This strikes at the core of the company's image as a high-quality academic publishing house: 'There are quality manuals defining what we produce as up to the national standard — we have got a quality working sign up here that we are working to that level. Yet customers accept that standards are going down, and possibly the customer will support us because it is also cheaper for them,' another person points out.

Other 'costs' of relocation are communication problems, which sometimes lead to uncertainties and delays about progress of projects. At *Architect*, one staff member feels very frustrated about the way the collaboration is going. She explains that if she has to

work on another project involving *Globe* she will refuse. Drawings sent back to her are of poor quality and are not in line with her requirements and specifications. There is a deadline, but half of the drawings are missing, and her Vietnamese contact persons are often not available. *Globe's* UK consultant has now been drawn in as a trouble-shooter. Many western companies relocating eWork to Asia initially underestimate the effort required for the monitoring and co-ordination of the tasks. The project leader of the German company *ABC*, which relocated a software project to India, explains, 'we had intended to do the specification once and then leave it completely in the hands of *Softec*, but it became clear right at the beginning that this was not possible. This is the reason why I am still involved in the project. Because someone from our side has to monitor it continuously and to decide on the direction.' Gradually, most of the source companies have developed more realistic expectations of the relocations — including the additional costs for monitoring, co-ordinating and communicating.

5.4.2 Moving up the value chain?

Different patterns of division of labour are evolving between European and Asian companies. Despite the often-mentioned willingness of Asian workers to carry out tasks that are not appreciated by western employees, Asian vendors do not just carry out mundane, routine tasks. Some source companies also give higher value-added tasks to Asia. One reason for this is the necessity of offering attractive jobs to the Asian employees in order to retain them and their knowledge for the company, given high attrition rates (often about 20 per cent). Another factor is the experience that in some projects (especially software development) a 'hard' division of labour between specification and programming can be problematic. Against this background, the Sri Lankan *Ivy* unit is ever more closely involved in earlier stages of software development projects. Similarly, at *Globecom*, an international IT company with 1,100 IT experts working in Bangalore, Indian programmers increasingly participate in requirement specifications — often in Europe or the USA. Despite the intention to upgrade the role of the Asian destination, there are some restrictions, caused in particular by a high personnel turnover in most Asian countries. This hampers the development of stable relations and the continuous creation of a knowledge base that is crucial for the assumption of higher value-added tasks.

The Indian software-testing house *Solid* is aiming to become a specialised, high-segment niche player in the domain of financial applications software testing. It is not easy to find staff who combine domain knowledge (regarding the financial sector) and technical knowledge (software testing). *Solid* therefore hires fresh graduates and trains them internally. A problem for the development of a specialised workforce is the high attrition in the company: many Indian companies feel the need to recruit good testers and poach staff members from *Solid*. By moving to bigger firms, the employees can

often increase their salary by 150 — 200 per cent. Additionally, the *Solid* employees are trained on software tools that are rarely used in Indian companies. This makes them particularly attractive to other companies in the global market.

5.4.3 Fluttering or permanent — how long do butterflies stay?

Only in a few of the cases studied here was relocation a limited measure. After completion of the project, the outsourcing relationship between the German software house *ABC* and *Softec* was terminated (the offshore supplier only carried out a few maintenance tasks). The same applied to the project-related relocation of a project from the UK media agency *EDL* to *MSC* and from the British travel agent *Travel Mode* to *Cody* (all of these were outsourced software projects). But in all other cases, relocations continued or were expanded. Outsourcing or internal subcontracting of eWork often began as an experiment and developed into a permanent strategy. Sometimes, the company strategy has changed so that the in-house option is no longer even considered.

Relocation as a permanent strategy of source companies does not necessarily equal the continuity of a particular relationship. Most companies prefer stable co-operations within a 'partnership' model. But this does not exclude a change of partners. After four years of collaboration, the publishing house *Townsetter* decided to bring in another Asian supplier besides the existing partner *SIR*, because *SIR* seemed to have limited competencies. *SIR* did not lose *Townsetter* as a client altogether, but did lose part of its business. *Townsetter* is in a good bargaining position and has acquired additional flexibility. 'If one of them fails to achieve what is required we will simply move the work to the other one', the production manager says. The fact that the quantity of work from *Townsetter* has been decreasing causes some nervousness and a feeling of insecurity at *SIR*. Employees are worried about their futures.

One factor that can trigger the re-relocation of work is technological change. In the EMERGENCE project, the European airline *Flighty* moved its ticket processing to Mumbai, creating 90 jobs at the destination company *Coup-Mum* (60 jobs were lost in Europe). When the technological opportunity of scanning tickets arose, part of the work was re-relocated from India to a CEE country, since priority was now given to other factors, including the geographical proximity of the destination company. Similarly, the partial shift of tasks from *SIR* doing work for *Townsetter* to another Indian company was facilitated by the fact that *Townsetter* switched from using special in-house typesetting software to an off-the-shelf software package. This made the change of outsourcing partner much easier and made it possible to loosen the previously exclusive relationship between *Townsetter* and *SIR*.

The possible emergence of new destination locations had already become apparent in the EMERGENCE case studies. In some cases, a future move to other countries has already been considered or decided upon, China being a location often named in this context. For instance an additional location in China is being considered by the international financial services company *Shore*, as it is by the IT company *Globecom*. 'In fact, they are thinking of opening a software centre in China,' an IT manager at *Globecom's* Indian software unit in Bangalore told us in 2001. 'In the beginning it would be an addition for us; in the long run it would be a competitor'. Two years later, these plans have taken shape. In China there is now a new small software location 'because India is considered too expensive', as a *Globecom* engineer ironically puts it. The Chinese software centre will be managed from India. Still, the Indian software unit is expected to grow further. 'In the future it is planned to do considerably more business out of India,' a *Globecom* manager points out.

The dynamics of relocation are continuously creating new patterns, generating complex relationships, of 'addition' and 'competition' between different locations. The observation of relocations over a longer period of time that was possible in the Asian EMERGENCE project will allow a better understanding of the dynamics of shifting strategies and operations within the context of globalised eWork. It is not probable that these dynamics will come to an end soon, reaching long-term stability — in many cases we can expect that the butterfly will be moving on again.

6. The Use of Offshore Labour by Australian Firms: Opportunities and Realities in the Global Knowledge Economy

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In this chapter, research from the Australian EMERGENCE project and case studies involving relocations from Australia to Asia are analysed both in order to offer a comparison with the Europe/Asia relocations discussed in the previous chapter, and for the general light they shed on the developing global division of labour in information services.

6.1 Introduction

Information and communications technologies (ICTs) increasingly offer a means for relocating work away from traditional industrial centres. The original EMERGENCE study (Huws and O'Regan, 2001) identified a number of forms of eWork, including outsourcing to a separate organisational entity and the use of remote employees working collectively in remote offices or individually as teleworkers.

The growth of eWork can be seen as a product of a number of forces. The cost of ICTs is continually driven down by technological advances, such as computer-telephony integration, and by growth in the global computing and telecommunications industries. Forces behind this growth include the globalisation of markets, trade liberalisation, deregulation of telecommunications in many countries, and the growing complexity of customer-supplier relationships. As well, businesses are using the new technologies to recreate relationships with customers (*eg* through customer relationship management or CRM) and suppliers (*eg* through web-based procurement and eOutsourcing practices).

Today, ICT costs are often a small part of business infrastructure costs, and the telecommunications portion is often relatively unaffected by the distance between source and destination. More critical sources of cost in many highly competitive industries are labour and office space. Labour-related costs go beyond wage costs and may include the effects of:

- high turnover in some locations and industries
- the costs of travel to the office or customer sites; access to expertise in some knowledge-intensive occupations
- and the need for employees in some CRM functions to have certain social, linguistic or cultural skills, or knowledge.

While new ICTs allow organisations to locate workers in sites where labour costs or other factors are more favourable, little is known about how managers make decisions that cause work to be relocated. The results of the EMERGENCE project in the EU suggest that work relocation is often a more or less incidental outcome of broader business changes (Flecker and Kirschenhofer, 2002). For example, companies may concentrate workers from multiple locations onto a single site as a rationalisation strategy that may include outsourcing to an independent company or one with a shared ownership. A second strategy is where company expansion provides opportunities in a new region, *eg* through take-over of a company with facilities in an area of cheaper labour. A third involves a decision to outsource to a company that happens to use a remote workforce. Flecker and Kirschenhofer (2002) identify a number of variations of these types, *eg* involving isolated relocation of specific business units, rather than a major reorganisation of the whole company.

This chapter presents preliminary findings from case studies of relocation affecting Australian businesses. The Australian political context is presently very focussed on employment growth in the tertiary sector. On initial appearances, eWork has the potential to impact on employment in two broad and politically important ways. First, jobs may be gained or lost to international competitors. For example, call centre jobs relocated to India and data entry jobs relocated to China have received significant media attention, provoking commentary from union officials, politicians and the public. Second, eWork may allow jobs to be transferred from urban to rural areas, defined here as those outside the five mainland state capital cities. Although Australia is one of the most urbanised nations in the world, rural voters have traditionally held strong influence in elections and measures to boost regional development are politically important. Virtually all state governments have economic development offices giving considerable emphasis to attracting call centre work, *eg* by providing financial incentives, relocation assistance, tax breaks and other incentives. In some states, notably Tasmania, Victoria and Queensland, these have been focussed on rural as well as urban centres. A number of larger rural towns and cities have also developed their own economic growth programmes around IT-enabled services, including Bendigo, Ballarat and Portland in Victoria, Wagga Wagga, Newcastle and Wollongong in New South Wales, and Launceston and Burnie in Tasmania.

The relocation of jobs from central business district areas of large cities to international or rural areas is thus increasingly likely to concern governments, union officials and local communities. At present little is known about the scale of such relocations and the forces driving these trends. The press has featured examples of relocation of call centre work to India and to rural communities in Tasmania. The dominant impression from these accounts is that jobs are abolished in central business district offices and recreated in offshore or rural regions where labour is cheaper. However, the European EMERGENCE results (Huws and O'Regan, 2001) suggest a more complex reality, in which 'relocation' may:

- (a) result from broader expansionary or contractionary business decisions
- (b) be driven by factors other than cost and
- (c) impact on a wider range of business functions than just call centre and data entry work.

This paper examines these issues in the context of international eWork relocation between Australia and Asia. In particular Australia is geographically and increasingly economically connected to nations such as India, Singapore, Malaysia, the Philippines and China. All of these nations have rapidly developing ICT infrastructures and increasingly internationalised and deregulated business environments that encourage foreign investment and export. All have, *eg* very rapidly growing call centre industries with a focus on both internal and external markets. All are competing for work in shared services facilities; India and to a lesser extent all the other countries compete for software development; and China and the Philippines compete for data entry work.

In this environment, Australian managers increasingly see opportunities to use cheaper offshore labour for clerical and customer service work (*eg* data entry and customer service) and certain knowledge-intensive occupations (primarily software development and support but possibly also some forms of creative work). Conversely, managers in Asian nations may increasingly find opportunities to use specialist skills in Australia that are not locally obtainable, *eg* in medicine and architecture. However, by far the greatest publicity has been over the possibility of losing Australian jobs to Asian nations with large stocks of lesser-qualified, and cheaper, labour.

Our interest in the case studies below is to examine in detail the processes by which organisations come to relocate work and to draw implications for this image of a pending large-scale loss of jobs — especially but not exclusively in low skilled occupations — to Asian nations. Before this, we provide some background to the Australian economy and some data on eWork trends from a recent EMERGENCE survey of Australian managers.

6.2 The tertiary sector of the Australian economy

The Australian workforce, more so than many in other developed economies, has been marked by long term growth in the tertiary sector. In the mid-19th Century it comprised 28 per cent of workers, at Federation in 1901 it reached 43 per cent, and today it forms three-quarters of the workforce. This has been accompanied by decreasing reliance on mineral, agricultural and pastoral production, as technological innovations favour capital intensive rather than labour intensive production. At the same time the manufacturing sector has been consistently declining and is about 12 per cent of the workforce today.

The decline in both the primary and secondary sector workforces, particularly over the past quarter century, has had a very real impact in reducing the jobs available to full-time male workers. The growth of female employment has been strong in the service sector, and mainly in part-time and casual employment (Dunlop and Sheehan, 1998 p.215). While full-time employment remains the major form of employment in Australia today, the proportion of people employed part-time has been steadily increasing from about 11 per cent of the workforce in 1970 to 28 per cent in 2001. Despite this, there is evidence that Australian workers are working longer hours than ever before. Whereas for many decades working hours were steadily declining, recently global competition and employer demands for flexibility have produced a rather different reality:

> *'In 1996 the average full-time wage and salary earner was working almost the equivalent of half a day per week more than 14 years earlier.'* (Dunlop and Sheehan, 1998 p.222)

Along with the increases in part-time employment and work hours there has been a growth in what some analysts refer to as 'precarious' employment (Dunlop and Sheehan, 1998 p.222; Campbell, 2000), more commonly called casual employment. The precarious nature of casual employment is illustrated by the Australian Bureau of Statistics definition:

> *'Casual jobs are commonly understood to be those subject to termination at short notice, not offering leave entitlements and with varying hours of work.'* (ABS, 2000 p.115)

In an international comparative study, Mangan showed that Australia has very high rates of casualisation. In 1999, almost 27 per cent of employed Australians were employed as casual workers (Mangan, 2000 p.29), compared with rates of only 19 per cent a decade earlier. Campbell notes that:

> *'The number of employees who were classified as 'casual' in their main job almost tripled in the period from 1982 to 1999, rising from just below 700,000 to almost 2 million.'* (Campbell, 2001 p.69)

At the same time, the incidence of self-employment has been rising and there has been a decline in public sector employment, historically more secure than the private sector (see ABS, 1998 p.115).

In summary, the Australian workforce is very heavily based in the service sector and, in general, shows a strong move away from traditional full-time, long-term jobs towards casual, part-time and self-employed work patterns. In this context, we ask whether employers also see eWork as a means of achieving different sorts of 'flexibility' in the workforce. The size of the tertiary sector in Australia is a pointer to the potential significance of any such developments.

6.3 Trends in eWork: evidence from the EMERGENCE employer survey

The Australian EMERGENCE employer survey involved a computer-aided telephone (CATI) survey of managers in over 1,000 establishments (Standen and Sinclair-Jones, 2002). From this we estimate that 37.6 per cent per cent of Australian establishments either employ, or provide some form of eWork. Large organisations are the most likely to do so, at a rate of 53.6 per cent.

The predominant functions that are eWorked, in terms of the proportion of establishments using them, are software development and support, customer service, and data processing respectively. In each of these cases large firms are the predominant users.

The size and structure of these workforces in terms of gender, part-time status and casualisation are not easily established. We found that the distribution of male and female workers in eSupplier establishments was fairly evenly balanced, with 43.5 per cent of establishments having more than 50 per cent male workers in a function, while 43.4 per cent had more than 50 per cent women. For establishments using remote offices, the proportion with a workforce of over 50 per cent females was significantly higher at 61 per cent compared to 39 per cent with over 50 per cent males. Although remote office workforces were generally very small, the predominance of traditionally female dominated categories of customer service, telesales and data processing/ typing suggests a higher level of female employment in eWork.

In terms of the location of eWork used by Australian establishments, arrangements that cross either state or national boundaries are still in a minority. About 25 per cent of instances of remote office or eOutsourced eWork cross over state boundaries, and only about one per cent involves international relocation. Furthermore, despite the enthusiasm of local, state and federal

governments to promote eWork as a means of regional economic revitalisation there is a tendency for relocation to be attracted towards capital cities rather than rural areas.

These and other data suggest that, in many ways, eWork in Australia does not radically alter the geographical pattern of more traditional work practices. This is seen clearly in the very small proportion of offshore relocations, and supports other anecdotal evidence that Australian organisations are not yet significant users of offshore labour.

6.4 Case studies of Australian eWork involving international relocation

The six case studies summarised below give some insights into how relocation of eWork out of, or into, Australia might affect Australian jobs, and its role in promoting a secure, gender-balanced and well remunerated workforce.

Case 1: Indian company buying Australian companies

This case involves *Ozface,* a large Indian software developer. Our interviews with this company, and also with other major Indian software developers marketing in the US or Europe, suggest a widespread perception of Australian businesses as less adventurous in their outsourcing decisions, particularly in relation to purchasing services from the sub-continent. Indian informants suggested a number of perceived reasons for this hesitancy, most commonly:

- a general lack of experience amongst Australian businesses in international outsourcing
- a perception amongst Australians that Indian businesses are affected by corruption; a concern amongst Australian businesses about quality, confidentiality and security
- a preference for work to be done onshore
- and an Australian business preference for dealing with representatives of similar cultural background.

Both *Ozface* and *Indiaparent* (described below) had an international profile and were aware of a market potential in Australia, but had experienced difficulty accessing this market. In both cases, the companies found that the most effective strategy was to establish operations in Australia, from which the bulk of production could be organisationally relocated back to India.

Ozface had tried to establish a branch in Australia in 1998 but in the following year experienced difficulty penetrating the market. In 2000, it decided to take advantage of the downturn in IT stocks and purchased major holdings in two Australian companies with

established client bases, one in Sydney and one in Brisbane. The Sydney company had about 25 employees providing on-billing services to blue chip multinational Australian-based companies, offering entrée to a major market opportunity. The Australian workforce currently stands at about ten, with the majority of workers located in India.

The Brisbane company was larger with about 60 workers in the head office, a branch of about 100 employees in Canberra, and revenue of about A$10M. It had been established for approximately ten years and had a strong government client base. The Brisbane office has now grown to about 80 employees and it is estimated that approximately thirty per cent of the work is performed in India.

In both cases *Ozface* planned to maintain the existing workforce in order to present a local face, with the expectation that over a period of about three years the business would grow. Their strategy required an Australian front-end workforce to provide client contact, marketing, initial job design and ongoing project management, and an Indian back-end workforce of software developers.

This case shows two forms of eWork relocation, a short-term relocation of Indian workers to Australia — mainly to set up the Australian branch, and longer-term relocation of work to India. In both instances significant margins are gained as Indian workers, whether onshore or offshore, receive substantially lower compensation — typically only around 20 per cent of their Australian counterparts. The Indian managers of *Ozface* found the Australian partners were sceptical about the extent to which margins could be reduced but are now convinced by the bottom line.

Case 2: Indian company establishing Australian branch

The second case examined was *Indiaparent,* a global company based in southern India that supplies applications and systems integration for customer contact management. *Indiaparent* is now a public company with significant foreign ownership and an annual turnover of approximately US$12 million. Established in the mid-1990s in India, *Indiaparent* now has branches across the world, including the US, Australia, Singapore, Dubai and London, with 40-50 per cent of its business remaining in India. Its customers are typically in banking and financial services, insurance and telecoms and many require solutions across their international operations. It is one of only four or five companies that can provide such international services.

Indiaparent employs about 290 people, 100 of whom are outside India — principally in non-core areas such as marketing, local

project management and pre-sales. Of the 190 employees in India, 100 are software engineers. The Australian branch illustrates the company's operations well, with six employees, three of them Indian, being serviced by about 20 employees in India. As with the previous case, the Australian company predominantly provides local marketing, front-end presence and project management whilst the actual production is done in India. Occasionally, Indian workers travel to Australia for brief periods to consult directly with clients.

We estimate that the Indian workers are about four to five times cheaper than Australian workers. In addition, our respondents reported that software workers are technically better qualified and more readily available in India.

Case 3: Isolated relocation by an Australian company

This case involved an Australia firm, *Integra* that integrates software and hardware services, with clients in the banking and finance sector. Founded in Australia in the early 1990s, *Integra* is owned by a Malaysian company and has a number of internationally located but locally managed branches in India, the Philippines, Singapore, Thailand, Malaysia, and China, with its head office in Singapore. In Australia *Integra* employs about 160 people with a revenue of approximately A$80 million, with expectations of doubling this within the next two years. However, the expectation for this growth is that employment growth will be offshore, predominantly in India and possibly the Philippines. About half of the Australian workforce are engineers, deploying and maintaining networks; the balance is evenly distributed between sales, administration and IT support.

One aspect of *Integra's* business is the provision of security defence technology to protect networks; this is predominantly done remotely. This business requires credibility as an effective supplier of security. To achieve this, many companies use the marketing technique of 'ethical hacking' by which they demonstrate to the client that their existing system is in need of the company's services. This process requires advanced technical skills, which are not in great supply in Australia, and is extremely time-consuming. For this reason the organisation chose to establish such a service in India, where there was an abundance of skills and relatively low labour costs. Rather than establish a facility from scratch, the organisation purchased a company in Bangalore delivering such work to US clients and employing 100 workers. These workers are paid the equivalent of A$20,000 compared to A$150,000 in Australia. This is an entirely male workforce with an average age of between 25 to 30.

The three cases above show how growing companies enter the Australian market by maintaining an Australian workforce to cover marketing, interface and client contact while at the same

time taking advantage of the significantly cheaper and highly skilled India software development workforce. They show the difficulties in making predictions about the effects of eWork on national workforces. All three are growing businesses. The first two cases show growth in Australian jobs along with larger growth in Indian jobs. The opportunity to use eWork came about through the acquisition of a remote company already possessing the required technological capability and remote workforce. In the third, a new function that had not previously existed in Australia was located in India using workers already employed by another firm there. If these three cases are not highly atypical, it seems likely that predicting the net effect of eWork on the software development industry in Australia is difficult. What can be said is that as the business expands, greater proportions of the jobs created are offshore, at the moment particularly in India.

Case 4: ICTs used to retain jobs in Australia

This case concerns a Perth-based engineering firm *Deepsea*, specialising in building onshore and offshore oil and gas exploration and processing facilities, with a well-established international reputation. For a long time *Deepsea* has been supplied offshore facilities using its Australian engineering workforce (sometimes with engineering support sent offshore). However, recent developments in ICTs enormously increased its capacity to transfer information quickly, allowing it to provide remote project planning and support, and to operate administrative functions while keeping the bulk of its skilled workforce in Australia. For example, the construction of an onshore gas processing plant in Western India is managed out of Mumbai but nearly all of the engineering work is done in Perth and sent online to the site. At the time of the interviews, approximately 70 engineers were working on the project in Australia with another 20 in India. Furthermore, all *Deepsea's* international procurement, accounting and much of the secretarial work are handled out of Perth. The site surveillance is also conducted remotely from Perth using video surveillance.

Deepsea is interesting because its decision to employ ICT-facilitated information exchange and business administration is apparently more a result of idiosyncratic company practice than cost-benefit analysis. It is a Western Australian privately owned company with local loyalties. Although the Western Australian economy's strong emphasis on mining has produced a skilled and plentiful supply of mining construction and processing engineers, these are by no means in short supply in India. One informant managing the project in India expressed the view that there were adequate supplies of such labour in India but there was a company preference for using its own Australian workforce. Therefore, more than in other offshore projects, Australian engineers were unwilling to relocate to India for other than short periods. Similarly, the informant felt that there were

disadvantages to conducting accounting services and small procurement for the project remotely, particularly given the differences in Indian business practice and taxation. Both the technical and business administration functions could be obtained in India much more cheaply, but this was clearly outweighed by less tangible considerations such as loyalty to a 'home' location or workforce. The massive capital costs of this kind of project may also partly explain why the higher costs of a Perth-based workforce would be an insignificant factor in the company's profitability.

The *Deepsea* case does not represent relocation of jobs away from Australia, but rather shows how ICTs extend opportunities for the Australian workforce in remote project locations. It also demonstrates the role of psychosocial factors in business decisions. There is considerable reason to predict that such non-rational factors influence decisions to locate employees in remote locations in other forms of eWork such as telework (Daniels, Lamond and Standen, 2000).

Case 5: High skilled jobs created in Australia through ICT-enabled outsourcing

In this case, *Medicheck*, an Australian organisation expanded offshore by supplying a niche market with a highly skilled local workforce. *Medicheck* began as a publicly listed company on the Australian and German stock exchanges, with many of its initial investors located in Germany. It provides high quality medical services for expatriate employees, tourists, corporations and wealthy local residents in countries or markets where there is little or no high-quality medical infrastructure. *Medicheck* has six clinics in China, two in Thailand, and one in Indonesia and is planning expansion into Vietnam, Korea and India, while three clinics in Malaysia have closed as a result of local competition. The clinics are established with state-of-the-art facilities and each is staffed by between two and five full-time locally-licensed medical practitioners (GPs) with wide general experience, many trained in the US, UK or Australia.

In these *Medicheck* clinics, ICTs allow a GP to access specialist services, *eg* an orthopaedic surgeon, cardiologist, skin specialist or obstetrician. Each clinic has ISDN connections and video-conferencing facilities that enable the local practitioner to transfer online x-ray information, cardiograms, obstetric case histories, and so on. The information is sent directly to a consultant specialist's own room in Perth, or the organisation's video conferencing facility. The company has 85 specialists on call around the clock but none of them work exclusively for the organisation. The capacity to provide fast high-quality specialist services into these localities provides the organisation with a huge marketing edge in the countries where the clinics are based.

This business has not created significant employment opportunities in Australia; at present the job growth opportunities are in the country consuming the service. It is however, an interesting illustration of the diversity of opportunity, which the ability to electronically transfer knowledge presents. *Medicheck* has recently begun working with a large American company servicing airlines with in-flight medical advice for emergency cases, and sees this as an avenue of expansion. Australia is considered to be a world leader in telemedicine and has an international reputation for high quality medical education. Because of this, it is a focal area for the government in promoting a 'knowledge economy'. However, the extent to which this kind of industry can create large-scale employment remains to be seen.

Case 6: Low skilled Australian jobs moving to China through ICT-enabled outsourcing

In this case, *Bulk-key,* an outsourcing company, sends data-entry work to a facility in Harbin, China. *Bulk-key* has only two Australian employees (joint-partner owner managers) and about 500 operatives in China. The Chinese operatives are predominantly young (average age 24), single and female with a high school certificate and a minimum of six years English. *Bulk-key's* major clients are finance and insurance sector organisations, and it also services contracts from New Zealand and England. All the marketing and sales jobs are outsourced to private contractors.

The majority of the work is sent offshore digitally, often via document imaging. Hard copy data (about five to eight per cent of the jobs) is sent to China in air satchels and the completed files are returned electronically.

All data is entered twice and checked by software for discrepancies which are then verified by a senior operative. These operators specialise in different kinds of information, *eg* first names, last names, or occupations. Thus the process is highly tailored in its attempts to increase accuracy rates. There is also a security advantage: by separating fields of each record no one operative can identify enough information to be able to match names with other data, *eg* credit card numbers. This was seen as a marketing advantage when dealing with security-conscious customers.

The *Bulk-key* operatives all live on site and come from far away villages and towns. They work a five-day, forty-hour week organised in shifts, and are paid according to output, in terms of both quantity and accuracy. They come from an abundant supply of labour that can be accessed at short notice. The keystroke rate is said to be fifty per cent faster than that of Australian workers and the turnover rate is low, with most staff remaining with *Bulk-key* for about four years.

Bulk-key sees its head office location in Australia as a huge advantage in the local market. Whilst they have competitors from the US and elsewhere, their local presence gives them an advantage over foreign outsourcing companies. As with the software examples above, it seems that Australian businesses prefer to have local personal contacts rather than an entirely telemediated link. Their placement in the local Australian time zone is also a great advantage over US suppliers, with a minimum of eight hours difference. Australian managers' preference for English speaking and culturally similar suppliers gives the local presence an advantage over companies based in China or India. The low value of the Australian dollar has also been a great advantage: *Bulk-key* provides services at half the price of a US firm.

The degree to which data entry can be broken into the smallest of components using digital technologies makes the use of offshore workers, even without English skills, highly feasible and enormously profitable where there are large supplies of labour. Whilst *Bulk-key* is at an early stage of development, it presents a very clear example of how outsource suppliers can guarantee, security, confidentiality and quality, as well as price advantages from the use of offshore labour.

6.4.1 Call Centres

Our Australian case studies did not include an offshore customer service centre facility, a call centre or contact centre. The employer survey is consistent with media reports in suggesting this as the business function responsible for the largest number of job relocations within Australia (as opposed to overseas). Currently it seems that, although some companies have relocated customer service offshore, there is still a strong attachment to location in Australia. A publicly well known example is that of GE Finance, managers of the credit card of the largest national retail chain, who received adverse publicity for relocating call centre jobs to India some years ago. At present, strong public hostility to banks, and some other financial institutions, has made them particularly sensitive to public image issues. In part this has been due to the closure of many bank branches in small towns and the consequent loss of jobs in past years. Thus, where relocation has recently been considered, rural Australian areas have been given some priority.

Similarly, outsource providers servicing Australia's national telecommunications provider (Telstra), now partly privatised, have also received public criticism when regional services have been perceived to be downgraded. The federal government sector is also a large generator of customer service employment and its commitment to national employment growth and regional revitalisation would negate the opportunities for offshore relocation.

Despite these issues of public image in the banking and public sectors, at present many customer service outsource providers indicate a sense of optimism about Australia's potential as a customer service provider to the US and other parts of the Asia-Pacific region. Australia has one of the regions most sophisticated and fastest growing call centre industries, having access to a multilingual and well-educated local workforce and enjoying the advantage of a weak exchange rate for the Australian dollar. Australia also has high levels of technology adoption and a strong 'teleculture' and 'e-culture'. The size, quality and international focus of this sector combine with managers' nervousness over the public relations issues when Australian jobs are lost, and their lack of familiarity with Asian business cultures, to reduce the attractiveness of offshore alternatives: we have encountered few examples of offshore relocation of call centre work.

6.5 Conclusion

Our survey data, and the evidence from the cases above, suggest that offshore eWork relocation is unlikely to create a significant job *loss* in Australia in the near future. However, as with any industry growing at the same time as technology changes patterns of production, it is dangerous to confuse job loss (or even slight job growth) with the loss of *potential* jobs created in offshore locations that would have been created in Australia if new ICTs (and an overseas workforce with the skills to use them) had not existed. Most commentators agree that the growth of the global customer service industry does offer very real opportunities for job growth — at least in the short term. Thus the real measure of Australia's success may not be job numbers at any point in time but its ability to create (or attract from offshore) *growing* firms, whose expansion may include both local and offshore workforces.

The cases have shown Australia's advantages in terms of knowledge-intensive skills in engineering and medicine, for example, and in terms of the business and cultural environment that allows companies to use Australia as a front office for outsourced workers in Asian countries, either for domestic or international markets. The cases have also shown Australia's disadvantages in terms of the huge wage differentials with, *eg* Indian or Chinese workers. Both skilled and unskilled labour are significantly cheaper in these locations, and neither ICTs nor the need for offshore management of these workers negate these costs.

We have also seen that these business issues are nested in issues of the cultural, linguistic and psychosocial compatibility of remote workers, and the office employing or buying their services.

When all these factors are considered, Australia's chances of growing a knowledge economy on the basis of the three most frequently outsourced functions — software, data processing and

customer service — seem limited. In the software sector, Australia doesn't have the capacity to produce quantities of well-priced labour sufficient to compete with India, China or the Philippines. In the case of data processing, the work can be successfully tailored, and skill levels reduced, so much that Australia cannot compete through supplying secure or well-paid jobs.

In the case of customer service, there may be some opportunities for gaining jobs by competing in the global market on the basis of economics, skill levels or business environment. However, in the tertiary sector generally jobs are typically not well paid relative to the skills of workers, have significant levels of casualisation, and are often part-time, and our anecdotal knowledge of the Australian call centre industry also points to such low-quality jobs.

The most positive cases involve very highly skilled workers in niche areas where Australia has internationally competitive expertise, such as engineering and medicine.

While to date we have not found large scale job losses to Asian or Pacific nations with lower labour costs, the signs are that the near future holds more potential for Australian job loss than job creation through eWork. However, the jobs created may be of greater value than those lost.

Finally, we must end with the caution that there is no firm empirical basis from which to make such predictions. Any attempts to collect such data must take into account the complexities outlined here, seeing eWork job location as an often incidental outcome of other business process developments, and one which may both create and destroy local jobs in an individual case of expansion or contraction.

7. eWork Relocation Within Asia

Rajendra Bandi, IIM, Jörg Flecker, FORBA, and Simone Dahlmann, Analytica

Previous chapters have looked at eWork relocation from one continent to another. However, as already noted, as supply chains become more extended geographically, they are also more likely to involve longer chains of outsourcers. Relocations do not just take place from developed economies to less developed ones; they also take place between less developed regions. Furthermore, a model of relocation as a single hop from one location to another is no longer sufficient. Any given hop may simply constitute an intermediate step in a longer value chain. And any given location may constitute a staging post in a longer geographical journey. In order to examine the full range of employment shifts it is therefore important to supplement a study of intercontinental relocations with that of intra-Asian international relocations and inter-regional relocations.

The relative sophistication and maturity of the Indian software industry makes it a particular instructive example of such processes. As successful Indian companies move up the value chain, they can be seen as entering intermediate positions, taking on ever higher added-value activities from their client companies (or parents) and passing on lower value-added activities to other supplier companies or back offices in other locations, perhaps in other regions of India or other countries, either inside or outside Asia.

Several of the Asian EMERGENCE case studies that involve inter-regional or international relocations within Asia illustrate this process. In this chapter we summarise some of the main results from these cases.

7.1 Background and motivation for relocation

In the European EMERGENCE project, a typology was developed to gain a first overview of the variety of relocation cases (see Flecker and Kirschenhofer, 2002 p.12). A primary distinction was made between 'company reorganisations', meaning that the relocation of work was part of a larger restructuring process of a corporation, and 'isolated measures', *ie* individual outsourcing

and relocation projects. It turned out to be quite useful to view relocation processes of eWork as a window into larger processes of restructuring and shifts in the international division of labour.

This argument is confirmed by the findings from the Asian EMERGENCE case studies. The case studies on relocations within Asia demonstrate that restructuring and rationalisation by way of spatial concentration of activities seems to be a significant tendency. For instance *CiB,* a large Indian bank, concentrated its transaction processing from the bank branches in 11 Indian states to upgraded regional and central data processing centres, and moved back-office jobs to the central location.

CiB, a large bank, decided to rationalise and partially centralise its operations, including the creation of a new company to run its IT operations, upgrading the central data centre and upgrading the regional processing centre. This involved eliminating back-office jobs based in branches and substituting them with jobs at a central location. A first regional processing centre was established in one major Indian city with a single back-office process and a small infrastructure which gradually took over work from the branch offices. The scale of expansion was unexpected and quickly outgrew the capacity at the original location. A second centre was established in another large city in a different state. The centre has now been relocated for a third time.

At *Betatell,* a concentration process took the form of outsourcing: an Indian telecom company decided to outsource its payroll and HR activities and selected a service provider. This outsourcing arrangement also entailed a geographical reorganisation, whereby the work was relocated from ten Indian cities to Bangalore. *Locality* is another case highlighting centralisation as an important company strategy. As a large publishing and printing company, *Locality* decided to outsource telemarketing and booking of advertisements to *Adsales,* an experienced provider of inbound and outbound call centres. *Adsales's* call centre staff book advertisements for the newspaper publisher from a single centralised location, as well as selling advertisement space over the telephone. In another case, *HelpIT,* the centralisation of customer service help-desk activities led to the creation of 38 jobs at the destination location, and caused a loss of 100 jobs at the five source locations.

We can conclude that both in Europe and in Asia, ICT is used in processes of corporate restructuring with the aim of geographically concentrating work that used to be carried out in parallel in various locations. This partly takes the form of internal restructuring, partly of outsourcing. These processes can be observed at the level of the national economy (*eg* within India), at the level of a supranational region (such as the EU) or at global level (described in more detail in Chapter 5). In some cases, the concentration of activities in one centre is a simple by-product of technical development. An example of this is *Lighthouse* where the

centralisation on two sites was the result of the introduction of remote control technology. Here, the result was an overall reduction of employment by 24 jobs.

Whilst most of the analysed relocation cases were planned to be permanent, a few cases illustrated temporary arrangements. For example, the case of *Global Learner/Educate* demonstrates the dynamics of a temporary outsourcing project and the associated high hopes of a very small web design company to enter a tight domestic market field.

Global Learner is one of India's largest design companies specialising in e-learning programmes. In 2002, website content design work was relocated from *Global Learner*, Delhi to *Educate* in Bangalore. *Educate* is a very small web design company employing six full-time designers. The key motives for this relocation were a tight workload at *Global Learner* and failed attempts at filling the gaps with local freelance staff. As a consequence, *Global Learner* decided to look at companies in Bangalore, a city with a larger labour market for creative design. *Educate* were recruited after they presented some storyboards with design work. The project involved the design of an entire curriculum for a University in Asia. The web-based curriculum was to be delivered in a period of one year. *Global Learner* had its own modules from earlier projects involving e-learning. Two modules (Physics and History) had to be created from scratch and were outsourced to *Educate.* The design of these two modules took nine months and there appears to have been a mismatch in expectations: *Global Learner* viewed this relocation as a one-off event, whereas *Educate* hoped to win *Global Learner* as a permanent client. As a small start-up company in a very competitive field the *Global Learner* project became the main source of income for *Educate* and during the course of the project *Educate* employed twenty staff. After hopes of a continuing partnership were not realised, *Educate* is presently struggling to keep in business and has had to ask staff to leave.

It is important to note the consequences for economic development and regional labour markets of such shifts. The case study evidence suggests that the large cities and the metropolitan areas are in a better position to attract jobs in IT and IT enabled services through these processes. The reasons may vary depending on the business function and activities involved. As our findings in the European EMERGENCE project showed, centralising customer service, *eg* in large pan-European call centres, and requires an adequate labour market supply of people with language skills and with possibilities to work flexibly. In the Asian context, a related phenomenon caught our attention to a larger extent than it did in the European research. The very process of outsourcing business functions, or 'hollowing out' of companies, often has spatial implications that may aggregate to a substantial movement of jobs.

A very interesting case in this respect is a manufacturing company, *KLP,* in rural Thailand that aimed to set up an IT function. An outsourcing decision was taken and, influenced by the parent

company, the subsidiary of an international company in central Bangkok, *IT@Solve,* rather than a local software company. In a similar case, *TH,* IT support was outsourced from the Rayong province in Thailand to a subcontractor, *Nrepair,* in Bangkok. There appears to be a systematic preference for city-based, rather than rural suppliers for IT functions or indeed any other functions involving eWork, both by manufacturing and service companies. It can be assumed that this is partly because many of the service providers are based in metropolitan areas for historical reasons. However, other factors may also come into play, including better infrastructure in cities, and perhaps a more 'modern' image of metropolitan companies. The Australian EMERGENCE survey confirmed this assumption, showing that, when outsourced, eWork jobs tend to move from regions to the capital cities of Australia suggesting that this may be a general trend.

However, concentration is not the only direction the movement of jobs takes. As in Europe, decentralisation of jobs could also be observed in some Asian case studies. This outcome occurred, *eg* when a strategic decision was taken to move the customer service function close to the customers or when an outsourcing service provider operated call centres in several locations. In *Techmouse's* case, the relocation, involving the outsourcing of technical support functions to *Soft,* was not to a single site but to a network of ten linked centres in different Indian cities, close to the company's customers.

Intra-regional relocation is sometimes driven by other requirements. In one case in India, software functional testing work was outsourced from one Indian location (Bangalore) to another (Chennai) in order to satisfy a critical customer with concerns about quality.

India 5 is a large IT services company based in Bangalore, India. *India 5* outsourced a small project involving user acceptance testing to *Testcomm* in Chennai, another Indian city in a different state. The main motive to outsource was to satisfy a critical customer who needed to be assured of high quality. The very high workload of *India 5's* in-house staff aroused suspicions that their work would not receive sufficient high priority if carried out internally, so they demanded that niche user acceptance testing should be done by a third party. The relocation was planned to be short-term, lasting between six to eight months. *Testcomm* was therefore selected by *India 5* to do this work. Although *India 5* was generally satisfied with *Testcomm's* work, the company is determined not to outsource any further testing work. *India 5* employs 800 testers and therefore feels that they have the expertise in–house. As one interviewee commented, 'large organisations find it more difficult to outsource since there is enough expertise available within the company'.

Testcomm is a medium-sized, independent testing company in the Banking, Financial Services and Insurance (BFSI) sector. During the recession period in 2001, a number of *Testcomm's* customers who were Fortune 500 customers were badly hit and *Testcomm's* revenues dipped considerably. Hence, *Testcomm's* motives to take on a fairly

short-term project were interlinked with the wish to build a domestic market presence. This relocation has created temporary job opportunities for testers at *Testcomm* without any obvious loss or gain of employment. *Testcomm's* CEO feels that the collaboration with *India 5* helped them to take a step forward in entering the domestic testing market and remains hopeful, saying that, '*Testcomm* will continue to remain a niche player and we will create value pricing through offering domain expertise. The domestic market with large IT services companies operating in the BFSI segment will get very lucrative in about two to three years time'.

The second major driver of relocation, which of course can only separated analytically from processes of corporate restructuring and spatial concentration of activities, is the search for low cost alternatives to in-house and local activities. As already described in Chapter 5, this can take the form of an expansion or a replacement of jobs. The case studies in Asian countries provide interesting examples of attempts to tap into additional labour markets of to use low labour cost alternatives.

As the *Spy,* case study demonstrates, 220 jobs were created in Hanoi, Vietnam, through the relocation of data processing work from Manila, Philippines, while other case studies show how Vietnam attracted web-marketing work from Thailand. *TNT Tours* is a small travel company based in Bangkok. *TNT Tours* wished to enter the Vietnamese tourism sector and therefore started a partnership with *Tourist. Tourist* is a tourism service company in Vietnam. *TNT Tours'* management intended to create better service provision for customers and generate cost savings for tour operations outside Thailand. *TNT Tours* specialises in the design and planning of marketing materials and *Tourist* initiated a web-based marketing system and incorporated the information and updates supplied to them by *TNT Tours.* The marketing strategy through the Internet has expanded the range of tourism services *TNT Tours* and *Tourist* offer and as a result, both businesses have grown and new jobs have been created at both locations.

Access to a lower cost workforce also plays a part in the movements of work from more developed Asian economies to less developed ones. These are illustrated here by the cases of *Infogroup,* a Hong Kong company outsourcing its billing and database management to *Lyrics* in the Philippines, and *Newton,* a Singapore-based company carrying out its software development in Sri Lanka.

Newton is a software development company based in Singapore offering offshore services to a wide range of international clients. In 1993 *Newton* acquired a fully owned subsidiary in Sri Lanka, *Cyber SL*, which carries out software development, support and quality insurance testing. Other strategic functions, including corporate management, marketing and sales, have remained at *Newton* in Singapore. The key reasons for this relocation were the high wages for the Singaporean IT staff and relatively high costs for company premises. *Newton's* management decided to move software development work to Sri Lanka

because of the immense costs savings they could achieve. This was perceived as a crucial company strategy in order to gain business advantages over their competitors in the software development field. Most of the Singaporean software developers were moved to *Cyber SL* and no members of staff were made redundant. In addition, new Sri Lankan staff were employed and trained by their more experienced colleagues. Whilst at the beginning of this relocation the management responsibilities and customer specifications of requirements were handled in Singapore, more responsibilities have been progressively transferred to teams at *Cyber*, resulting in increased independence and autonomy.

From the case study evidence it is not possible to draw firm conclusions, but the findings seem to suggest that, with a few exceptions (*eg Ivy* in Sri Lanka), only India is able to attract centralised functions in IT or IT enabled services from globally operating companies. Whereas some of the other countries under investigation are more likely to be destinations of relocation, or outsourcing as isolated measures, with the aim to cut costs or to overcome skill shortages. Yet, the Indian example clearly shows that once subsidiaries or outsourcing service providers in IT or IT-enabled services are established, a process of upgrading may commence that eventually leads to a higher position in the value chains and in the global information economy altogether.

When comparing intercontinental relocations with those within Asia some interesting differences emerge. While cost savings, shortage of skilled staff at the source location, and availability of qualified personnel at destination location are the most common motives in intercontinental relocations, competitive pressures, and improved efficiencies are the most commonly cited motives for Asian and intra-country relocations. This is in line with a picture of outsourcing relationships within Asia being, in many cases, at an earlier stage than intercontinental ones, forming a close parallel to the many intra-European relocations identified in the EMERGENCE employer survey in Europe (Huws and O'Regan, 2001) and intra-Australian relocations in the Australian EMERGENCE survey (see Chapter 6).

7.2 The relocation process: personal contacts vs. objective methods

The intra-Asian relocation cases supply additional information about the importance of personal contacts, especially in the early stages of the relocation learning curve. In almost all cases of work moving to Sri Lanka, for example (a country in which eWork is relatively new) the involvement of a senior manager of Sri Lankan origin in the source location was a key determining factor. This was the case regardless of whether the relocation was from another Asian country to Sri Lanka or an intercontinental case. An example of the latter was the Canadian company *Fabsteel*, a construction company experiencing a shortage of detailers to

produce specifications and drawings for steel fabrication. The company already had a number of employees of Sri Lankan origin. Through personal connections, these employees provided contacts in Sri Lanka through whom it was eventually possible to identify Sri Lankan detailers. Two *Fabsteel* employees were sent to Sri Lanka to rent an office and hire employees there.

This dependence on personal contacts was much less often the case in India, where the market is more mature, established relationships exist with major customers, and a number of large companies have established themselves as known global brands.

It is common to find that the founder of a 'destination' organisation is a former employee of the 'source' (as in the *Belgie* case). Nevertheless, personal contacts do not always come into play. As can be seen from the case of *Goodhealth/Reach.* Here, an Indian medical transcription company serving US clients used a multi-stage formal procedure to find subcontractors to carry out overflow work in other parts of India. Here, the location of the supplier was immaterial, as were any existing personal connections; the priorities were to ensure quality, consistency and sustainability of work at the right price.

Goodhealth is an established medical transcription company based in Bangalore, India. In order to cope with fluctuations in the supply of work from its US clients, the company decided to look for subcontractors in India. After an advertisement was placed, some 2,000 applications were received. Once an initial sift had taken place, a detailed questionnaire was sent out to applicants seeking information about their infrastructure, skills, training and sustainability. In a final stage, a physical assessment of the premises was conducted and medical transcriptionists were tested. On this basis, seven subcontractors were selected, a number which has now been reduced to four, including *Reach*, the subject of our case study, which is located in a smaller city in India.

A similarly process was involved when *Techmouse,* a large hardware manufacturer, picked *Soft* to carry out its outsourced sales and customer service support. Dissatisfied with an earlier outsourcer, who was too small and did not possess sufficiently advanced technologies and infrastructure, *Techmouse* put the work out to tender. The decision to use *Soft* was only made after a number of visits and technical evaluations. The critical competitive advantage of *Soft* was a customised closed loop solution for the source requirements. After a series of changes in the prototype, this was judged to be acceptable by *Techmouse* and the contract was awarded.

7.3 Conclusions

We can conclude that relocations within Asia are not different in kind from those elsewhere in the world. Rather, individual Asian regions and nations can be seen as participating in much the same

processes of global employment restructuring that are taking place elsewhere, with similar risks (*eg* to the economies of remote and rural areas) and opportunities (*eg* for the development of new eService supply enterprises in regions that are rich in human resources).

These restructuring processes are highly dynamic, however, and regional advantages may remain temporary as local wages and conditions improve and local companies move up the value chain, leaving scope for new entrants lower down the chain.

In the next chapter, we summarise the very different positions of six Asian nations in this new global market for information services.

8. The Asian Context — Diverse Routes to a Knowledge-based Economy

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8.1 Introduction

In this chapter, we take a definition of eWork as 'information-processing work carried out at a distance with extensive use of computer systems and on the basis of telecommunication links'. It summarises a series of status reports, carried out by national experts in the Asian EMERGENCE project on eWork and its potential in six Asian countries: India, Indonesia, the Philippines, Thailand, Sri Lanka and Vietnam.

In order to understand the context, extent, characteristics and potentials of eWork in these countries and gain some insight into their likely future courses, a range of factors has been considered. These include the industrial structure, labour issues, education, telecommunication network, and infrastructure, as well as governmental policy. Adaptations to global trends are also considered as a major differentiating factor. Whilst avoiding making definitive predictions, the comparative presentation suggests the competitive position of these nations in the global market for eWork.

This overview was carried out with the dual aim of obtaining a general overview of the context, extent and characteristics of eWork in these six Asian countries and identifying the sectors, companies and business functions most likely to yield fruitful and representative case studies for the Asian EMERGENCE project. The six individual reports synthesised here were carried out on the basis of national literature reviews and a secondary analysis of data resources in each country. These data were collected from a large range of sources including government and industry publications, statistical yearbooks, academic journals, trade and popular press articles and websites. This information was supplemented by interviews with key personnel from industry associations, national and international companies, telecommunications providers, research institutes, universities, investment boards, science parks, development agencies, professional associations, trade unions, training providers and a range of government representatives.

8.2 Industrial structure

Despite many differences between these nations, some common trends are discernible. Although agriculture remains the most important sector in all six countries, there has been a general decrease in agriculture's share of GDP. This is combined in every case with an increase in revenues from telecommunication and computer related trade. There has also been a steady increase in FDI by large international corporates in all these countries. This has been accompanied by a growth in the service sector. However, manufacturing remains a more important contributor to GDP.

Hopes raised during the late 1990s of a continuing boom in the IT industry have generally not been fulfilled. Most of these Asian economies, some still not fully recovered from the impacts of the currency collapse of the mid-1990s, have suffered as a result of the general global downturn in demand.

There have also been major differences between these countries. India has been the most obvious success story in this respect. Along with the rise in the IT sector, media and entertainment has been growing as a major revenue generating industry. There has also been a growth in other back-office services, such as call centres. This diversification, together with a large and growing home market for information-based products and services, has enabled India to continue to expand. The Philippines, too, has a significant sector providing IT and back-office services for export. Vietnam has witnessed rapid growth in its IT sector, but from a very small base. A similar growth can be seen in Sri Lanka. In Indonesia, however, despite its much larger population, these service industries appear almost entirely absent.

In the Philippines, a call centre sector is emerging. In September 2001, 12 call centre companies came together to form the Contact Centre Association of the Philippines (CCAP). The local call centre industry was expected to grow at the rate of 200 per cent over the next few years. Over 28 companies are in the process of setting up outsourced call centre facilities with total industry employment estimated at 25,000 by 2005.

However, this growth has not been as spectacular as that in India, where Datamonitor estimated in 2003 that there were over 50,000 call centre agent positions serving the UK market alone (Hallet, 2003a) with rapid future growth predicted.

8.3 Employment and working conditions

The labour markets of all six countries have been experiencing a shift towards gradual decrease in agricultural labour except for the Philippines and Indonesia, despite the fact that most of the six countries have historically been agriculture-based nations (in

terms of the percentage of the population dependent on agriculture). The major shift is towards service sectors — with an increase in IT enabled services and the rapid development of national telecommunication and information infrastructures.

Of the nations under study, Vietnam has the highest percentage of women in paid work (although it should be pointed out that a large number of women work outside the formal economy in agriculture in all these countries).

In general, the unemployment rate is rising, especially amongst the illiterate and poorly educated population in all these nations. However, this general rise disguises pockets of falling employment in certain regions and sectors, *eg* in Thailand where unemployment is falling in some regions as a result of major infra-structural development activities and in Sri Lanka for increased development initiatives by foreign and local funds. As can be seen in Vietnam, *eg* a pool of unemployed graduates, especially IT graduates can contribute to the attractiveness of a region for inward investment.

In all cases, the jobs created in the IT sector have predominantly been for young graduates. In India, high proportions of these have been women but elsewhere it is predominantly men who have benefited. The Philippines has attempted to quantify its IT workforce. The Government's IT Manpower Report, based on interviews in 163 companies, estimated that in July 2002, the IT labour force in the Philippines totalled 567,802 across the nation.

Wage levels in the IT sector vary both within and between countries. Known centres of the industry, such as Bangalore, have experienced some wage inflation, although wages continue to be well below EU levels. In the words of one journalist,

> *'The latest figures from ContactBabel actually put average starting salaries for Indian call centre agents at around £1,500 — their UK equivalents start on an average of £13,000 per annum. There is a less of a difference at managerial level — £5,000 per annum versus an average £27,000 in the UK — but it is still large.'* (Hallet, 2003b)

Indian salaries remain, however, substantially higher than in Vietnam or Sri Lanka, which are still in a position to exploit a relative labour cost advantage.

8.4 Education and skills

A skilled workforce is a prerequisite for a successful development strategy built on eWork, and all these six nations have significant proportions of the workforce with higher secondary and graduate qualifications, with India leading in post-graduate degrees in IT related subjects. Even though India does not have appreciably higher average access rates to higher education, its vast (over 1bn) population means that even a low percentage of postgraduates creates a larger pool in absolute terms than any of the other five

countries under consideration (although China, with a 2bn population, remains a significant competitive threat in this regard in the future).

India produces 160,000 IT graduates every year, compared with around 70,000 in Thailand, 130,000 in the Philippines and 10,000 in Vietnam. Despite its larger population, Indonesia produces only 2,000 IT graduates per annum and Sri Lanka only 750. However, Sri Lanka has ambitious plans to increase this number to some 3,000 per annum. While in most cases these graduates are proficient in English, Thailand ranks lowest in English proficiency with the Philippines, India and Sri Lanka ranking highest. In all six countries English is taught from elementary to higher secondary level. However, it is not compulsory in Thailand or Vietnam. In terms of universal education Sri Lanka and Vietnam are the leaders, producing high general levels of literacy and numeracy in their populations. Sri Lanka is unique amongst these countries in providing free university education.

Capitalising on its leading position in the IT industry, India has supplemented its general IT education with a number of specialist courses, *eg* in management and quality control, as well as founding internationally recognised quality checking institutes for its IT education. This has enabled it to develop IT education to global standards whilst other nations are still in a catch-up phase of IT education. The Indian IT education and training sector has also benefited from a two-way brain drain with North America and Europe.

The development of a national IT industry involves the bringing together of complementary professionals from several main educational streams: Information Technology, Computer Science, Electronics and Communication, and Electrical Engineering. All the countries under study have developed curricula in each of these areas, albeit to varying degrees. An increased share of private institutes (including private universities) in all these nations in areas of IT education and training has contributed to this development. Another important initiative has been the incorporation of basic computer education into the standard secondary education curriculum.

In the field of training, both India and Indonesia host foreign training institutes and India also sells international training services in other Asian countries. India has set up four Institutes of Information Technology, which are additional to its private and public training facilities in colleges and universities. Both Indonesia and Sri Lanka are in the process of reorganising their policy and strategies to develop new institutes in this sector. Thailand despite its low profile in other IT educational areas, has developed special initiatives on software training and set up a Software Park to consolidate IT learning and exploit it both for local and international markets.

8.5 Telecommunications infrastructure

All the countries studied have seen dramatic improvements in their telecommunications infrastructure in recent years.

8.5.1 India

In India, where telecommunications networks were historically of poor quality and amongst the most expensive to use in the world, there has been major investment in fibre-optic links, with the priority of connecting major cities by terrestrial networks as well as providing access to rural areas. Both national and international phone call charges have been reduced sharply. Cheap bandwidth and always on Internet access for homes in cities and most towns was kicked off in 2003. At the end of January 2001, of the 0.61 million villages, 0.45 million villages had telecom facilities. Teledensity (total fixed and mobile lines) increased to 3.6 per cent in 2000, and has since been growing rapidly. A liberalisation and license-bidding process for private sector participation in basic telephone and cellular services has been put in place. Formerly state-owned companies, BSNL, MTNL and VSNL (recently privatised), continue to dominate India's telecom services market. Revenues from telecommunications services are estimated to have increased from $3 billion in 1995-96 to $8 billion in 2000-01.

Telecom investments increased by 19.3 per cent, from $2 billion in 1995-96 to $4.5 billion in 2000-01. The international bandwidth available for the Internet by October 2001 was improved with the launch of India's first private undersea cable on 9th April 2002. Phase one of the project 'National Internet Backbone' for building an information superhighway covered a route length of over 17,000 km. Phase two was planned to provide connectivity to an additional 150 cities. In just two years India has effected a 110 per cent drop in the international private lease line rates with an equally dramatic fall in long distance telephonic charges. Cellular phone tariff rates were also reduced by almost half in January 2002.

8.5.2 Thailand

In Thailand, the telecommunication industry accounts for only three per cent of GDP. Thai telecommunications infrastructure falls under two main organisations; Telephone Organization of Thailand (TOT) is responsible for domestic calls and Communication Authority of Thailand (CAT) for international calls. However, private operators have also been allowed to step in through concession grants under Build Transfer-Operate (BTO) contracts. The number of telephone lines per 100 population (teledensity) on a national average was 18.4 per cent in 2001, but considerably higher in Bangkok and other big cities where businesses are concentrated.

Bangkok and other big cities have well-developed telecommunication infrastructure for high technological services such as Integrated System Digital Network (ISDN). TOT has also made major investments in a Fibre Optic Cable Transmission System, which has gained the concession for ten years. Another infrastructure project (with a 20-year concession) is a Submarine Optical Fibre Cable System, which integrates the distance communication circuit between Bangkok, the Southern area and the Eastern seashore.

With Internet charge rates for individual users in Thailand relatively lower than in neighbouring countries, Thailand had 3.5 million Internet users in 2001.

Costs of hardware are relatively low in Thailand, because local computer manufacturing is highly encouraged to substitute for imports.

8.5.3 The Philippines

The Philippines is unusual in having a strong dependence on mobile telephony, with an estimated 15 million mobile phone subscribers as against 2 million landline subscribers. In the year 2000, the country was referred to as the text messaging capital of the world. Close to 300 million text messages are sent through the country's mobile networks every day. SMS growth in the Philippines is driven by content provider applications.

This development has been supported by considerable investment in satellite technology. One example is the Infocom DSAT Broadband Satellite which is the first revolutionary satellite solution in the Philippines that provides affordable high-speed broadband Internet access with the widest service coverage. In addition, Globe Telecom, a joint venture between Philippine, Singapore and German companies, is investing US$367 million for capital expenditures — partly for backbone network expansion and partly to strengthen wireline (voice and data) services.

Furthermore, the broadband Internet market is developing rapidly. For example, Syke's local subsidiary has recently installed multiple two-Megabit E1 lines to keep up with the constantly increasing bandwidth requirements.

8.5.4 Vietnam

Vietnam has relatively low scores for its infrastructure conditions. Its telephone density of 26.7 lines per 1,000 people (139th out of 178 countries) for 1999 was about one-third of the average density in the East Asia and Pacific region, and one-fifth of that in ASEAN countries. Its average of four mobile phones per 1,000 people (125th/180 countries) was about one-tenth of the EAP average and one-twentieth of the ASEAN average.

However, this situation is changing rapidly. Vietnam ranks second in the world in terms of its telecoms development speed (34 times over the period 1991-2001) and 90 per cent of communes now have access to telephone services. The telephone system has been fully automated and transmission networks have been modernised with the installation of six earth satellite Intelsat and Intersputnik stations. In addition, three maritime fibre-optic cable systems have been installed, linking Vietnam with more than 30 countries in Asia, the Middle East and Western Europe.

The Internet network in Vietnam grew by 200 per cent per annum between 1998 and 2002, with the total number of subscribers standing at 175,000 at the end of June 2002, marking a 30 per cent increase over the previous year. Meanwhile Internet charges continued to drop, with preferential prices applied to the software parks. At the time of writing, Vietnam has one million users who access the Internet on public or work computers, and 175,000 private subscribers to Internet services.

Vietnam's IT market has developed quickly, with an average growth rate of 20-25 per cent per annum. It is estimated that the total IT market of Vietnam in 2000 reached 300 million US$, of which US$250 million were accounted for by the hardware sector and the remaining US$50 million from the software and service sectors.

8.5.5 Indonesia

The teledensity (the number of telephone lines per 100 populations) in Indonesia is 3.3. In the year 2000, fixed phone subscribers increased to 6.72 million units and the annual growth during the period of 1994-2000 was 35.08 per cent. In addition to teledensity, utilisation of pulse is also an important performance indicator of the national telecommunication company. The number of pulses generated by subscribers increased by 7.4 per cent per annum, but those from public telephones increased faster by 18.78 per cent per year. For most Indonesian people, except for those who live in some big cities, the Internet is relatively new. The number of subscribers increased by 65 per cent per year whilst the number of users grew even more rapidly. The expansion is evident through the growth in the number of new domains registered in ID-TLD (Top Level Domain Indonesia) and 'Warung Internet' (private Internet kiosks).

The number of ISPs is also increasing and is currently at 22. However, in 2001, the market share of broadband Internet in Indonesia was still only around one per cent. Beside corporate subscribers as their main target, broadband ISPs also target people who live outside the fixed-phone based ISP service areas, offering Internet access through a leased line (64kbps-2048kbps). This increasing demand for broadband is also stimulated by the poor telecommunication infrastructure provided by PT Telkom, who

offer a slow Internet connection using copper wire. Broadband ISP LinkNet offers Internet access through Kabelvision-TV Cable.

Indonesia still lags behind neighbouring Singapore, Malaysia, Brunei, Thailand and the Philippines in its density of mobile phones, Internet hosting, and use of PCs.

8.5.6 Sri Lanka

Telephone availability in Sri Lanka is poor, with waiting lists running into years in some areas. Most of the telephone exchanges use archaic technology, creating congestion at peak hours. Sri Lanka allowed cellular phones in 1989 — the cellular phone market is growing at ten per cent to 12 per cent a month. In 1994 the number of cellular phones increased explosively from 3,000 to 23,000 at year-end, according to cellular phone firms.

Sri Lanka Telecom (SLT) planned to install another 275,000 telephone lines, especially in rural areas, by the end of 1995 (800,000 by 2000). FDI is urgently needed for building a telecommunication infrastructure. Submarine cables extend from Sri Lanka to Indonesia and Djibouti. Currently there are two INTELSAT earth stations over Sri Lanka in the Indian Ocean. The state-owned Ceylinco, has teamed up with COMSAT to launch Sri Lanka's first satellite services network. There are four firms that operate cellular services in Sri Lanka, for an estimated 30,000 cellular phone users on the island.

Including the registration fee and monthly usage fees, the prices for Internet connectivity are still relatively high in Sri Lanka. Sri Lanka's phone density is at 0.93 per 100 people for a population of 18 million, and with a demand for fixed phones at nearly 282,000. There are approximately 75,000 Internet connections; however, this figure is growing exponentially.

8.6 Government policies

Responses by Governments to the rise of a global market in eServices have varied considerably between the countries under study, some being at a preliminary stage, whilst others have had policies in place for over a decade.

Most countries have measures in place designed to encourage more FDI, particularly in the development of the software industry. However, this has taken different forms in different countries. The Software Technology Parks of India (STPI) were set up with the objective of encouraging, promoting and boosting software exports from India. STPI has 12 centres spread across India. These centres, are equipped with basic facilities and provide incubating infrastructure to SMEs, acting as a 'single-window' in providing services to software exporters. Around

7,000 software units have been given approval to operate under a 100 per cent Export Oriented Scheme (EOS). The Indian Government also announced a tax holiday of ten years for the software units operating under this scheme.

Vietnam began to invest in software parks in 1996. The development includes: Quang Trung Software City, established March 2001, and managed by a government appointed company; Unisoft, the first software park on campus at the Vietnam National University of HCMC; E-Town, a private sector investment completed in 2001 with total area of 49,000 square metres; Hoa Lac Hi-Tech Zone, located in Hanoi; and several software and IT parks to provide modern working environments for hi-tech enterprises with high-speed Internet and LAN access, 24-hour power backup and other telecoms services for tenants.

In Sri Lanka, a number of IT parks and Hubs have been set up throughout the country. These are zones in which IT companies and training institutes are offered several fiscal and infrastructure incentives (including rent and overhead subsidies as well as advanced telecommunications facilities). These include fifty Training Centres with a projected output of 8,000 IT professionals by 2004), the Sri Lankan Institute of Information Technology, projected to produce 2,000 IT professionals by 2003, an IT Park at Malabe (Millennium Information Technology) projected to produce 1,500 IT professionals by 2003, and an IT Campus at Dompe, on the outskirts of Colombo, which will produce 2,000 graduates by 2004.

Although all six countries have general policies designed to encourage foreign direct investment (FDI) there are considerable differences in the administrative approaches adopted, varying from a separate designated ministry to assigned national councils or committees. There have also been different approaches to developing the necessary legal instruments and state interventions for the development of this sector.

Only India and Thailand have established separate ministries to deal with Information Communication and Technology, but all six governments have set up national policy and national committee and councils to support and develop eWork. Both regional resemblances (and competitiveness) amongst these countries, and other neighbouring countries, towards policy formulation and practice can be observed.

Investment in IT-based industries is often encouraged as a component of a broader package designed to encourage FDI, sometimes with specific incentives to encourage a particular sector, such as software development, or a convergence of telecom, Internet and broadcast services. India considers preservation of Intellectual Property Rights an attractive component in promoting FDI. Vietnam allows free repatriation of capital and profits after tax of FDIs. The impacts of globalisation

and borderless commerce are evident in policy shifts in all these countries, including measures designed to create a legal framework for e-commerce. Vietnam, in particular, offers an express sovereign guarantee against the nationalisation or appropriation of foreign investment, as well as protection against future changes in the law. Competitive differential income tax for overseas corporate over national ones also deserves mention.

Other tax incentives include exemption of corporate income tax for initial years in Thailand and Vietnam, followed by a reduced rate of tax, whilst India offers a tax holiday for ten years for software units of 100 per cent export quality through EOU/EPZ. In Sri Lanka, several fiscal incentives have been introduced to ease the growth and development of the eWork and IT Industry. For instance a company exporting 70 per cent of output has an eight year tax holiday as well as 15 per cent tax concession after the tax holiday, a company exporting below 70 per cent of its output has a 5-year tax holiday with 15 per cent tax concession after the tax holiday, and a training centre with a minimum investment of Sri Lankan Rupees 15 million, and projected student output of 300 students enjoys a five-year tax holiday. Centres training a minimum of 100 students per year enjoy a concessionary 15 per cent tax rate for ten years in Sri Lanka.

Another dimension of government IT policy is the development of eGovernment, with a growing interest in web-based increased public interaction interfaces as a primary requirement of e-adaptation. A fast digitisation of government data and services is part of this process. Another aspect is attempting to make government eServices accessible by means of such initiatives as village level kiosks, the introduction of computers in schools and support to small and medium enterprises in rural and urban settings.

All countries have put much emphasis on developing Human Resource bases in the IT sector, as well as an internal expansion of IT services nationwide. Aware of its relative weakness in English-language skills, *eg* Thailand is developing advanced targets for English competencies under the national curriculum.

8.7 Adaptation to global trends

With the interesting exception of Thailand, all the nations under study were earlier ruled and governed by European nations. A residual colonial legacy has significantly shaped education, language, culture and daily living patterns, most particularly in the administration of these nations, in various degrees.

Overseas workers (OWs) of India, Philippines and Vietnam play a major role in the global economy and consequently contributing to national growth. The presence of OWs in many countries has created an appreciation of the home-country skills and has

established trust in relationship with other cultures. This has the potential to encourage more investments, more trade, more tourism and a more dynamic economic relationship with other countries.

8.7.1 India

Historically, India has had trade links with Asian and European countries going back many centuries (*eg* via the 2,000 year-old Silk Route). India has also had historical maritime trade links with the South East Asian countries, mainly in spices and silk. Most of the traditional Indian businesses and the big corporate houses are family owned. In contrast to the merit-based culture in western companies, Indian companies have traditionally been characterised by a paternalistic corporate culture towards the employees, which has its roots in the Eastern philosophy and culture and the patriarchal structures of family-owned companies. However, the new economy companies, like Wipro and Infosys, have developed new meritocratic standards of professionalism and corporate governance practices within the country.

India has a strong presence both of traditional MNCs and newer ones. Almost all the global software majors have a presence in India. The US predominates here, accounting for nearly half of all FDI. The UK is in the second position with around 19 per cent, followed by West Germany and Japan. Until the early 1990s, these four countries had a combined share of 83 per cent of FDI. However, in the last decade the share of the former top four came down sharply to 44 per cent with Korea becoming a bigger investor than Japan. Over a period of time, Indian relations with the USSR were also strengthened and the Soviet Union became a reliable source of economic and technical assistance. Now India has cultivated the friendship of the US. However, the development of India's nuclear capability has led to an embargo on technology transfer to India. India was an active member of the earlier GATT and, after overcoming initial reservations, has become a member of the WTO.

Since 1992, when its trade policy was liberalised, India has been strongly linked into the global economy through its trade, both in manufactured goods and in IT-enabled services. However, it is also strongly linked through movements of people. A strong Indian diaspora has played an acknowledged role in developing the markets for Indian services, especially in North America and the UK.

8.7.2 Thailand

The history of the relationship of Thailand with other countries, either Asian or Western, is interesting and diverse and mostly built through trade or war. Historically, Thailand had close relationships with Cambodia, Laos, and Burma (Myanmar). Today, Thailand has good linkage to several countries through

membership of several regional and global associations or organisations set up to further economic, political or social stability. The Association of Southeast Asian Nations (ASEAN) and ASEAN Free Trade Area (AFTA) is one of several results of co-operation among ASEAN countries. Another example is the World Trade Organization (WTO) of which Thailand is the Director at the time of writing. Through the Asia Pacific Economic Co-operation (APEC), Thailand has linkages not only to ASEAN countries but also to countries in the Pacific rim including Canada, USA, Japan and the People's Republic of China. Through the Asia-Europe Meeting (ASEM), Thailand also has relationships with European countries. ASEM was established to strengthen the linkage between Asia and Europe. ASEM is composed of 25 countries from two continents: ten Asian countries and 15 European countries. The Asia-Europe Foundation (ASEF) was founded in Singapore in line with ASEM to promote intellectual and cultural contacts between the two regions.

8.7.3 Philippines

The Philippines has long-established cultural, tourism and trade links with the United States, and many European and Asian countries with particularly strong links with middle Eastern Muslim countries. Manila, the capital, has become a major site for back offices for corporate America, Japan, Australia and Europe.

In Manila, more than 8,000 foreign companies source work in nine different IT parks via fibre-optic links. Some well known examples include SGV, the back office of Ernst & Young International, providing accountancy services to US companies and Procter & Gamble (P&G) which has 650 employees in Manila, most of whom have business and finance degrees, helping prepare P&G's tax returns around the world. Accenture will expand to 5,000 employees in 2004 for accounting, software and back-office work. Delta Air Lines has 6,000 contract workers in India and the Philippines for airline reservations and customer service. Companies like AT&T, AOL, American Express, Eastman Kodak, Intel, Microsoft, Chevron Texaco Corporation and Dell Computer are also important players.

The Philippines is also a home to call centres and data entry facilities serving a global market. It can therefore be regarded as one of the most globally embedded economies in the region.

8.7.4 Vietnam

Vietnam represents something of a crossroad for international players. Through its long history, influences have come from China, France, Russia, Japan and the United States. A wider informal connection with the world economy is also evident, with millions of Vietnamese expatriates around the world, mainly in the US, Australia, Russia, Germany and other European countries.

However, Australian IT companies are in a prime position to benefit from (as well as provide benefit to) their ASEAN neighbour because of the excellent goodwill that was created by a number of AusAID projects in Vietnam. While Vietnam plans to approach US- and Europe-based funding countries, Vietnam was able to attract US$40 billion of FDI during the period of 1988-2001 from Asian neighbours. The country's major trading partners include Japan, Singapore, Hong Kong, China, South Korea and Taiwan. Singapore remains Vietnam's largest source of imports.

Approximately 58 per cent of Vietnamese trade is with Asian countries, with Southeast Asia as the main gate for re-exports of commodities to third countries. Europe accounts for 22.4 per cent of total import-export turnover of the country. America and other regions take 9.2 per cent and 10.4 per cent of the share, respectively. Vietnam has bilateral trade agreements with over 60 economies in the world, with trade relations with 108 nations. The country officially became a member of the ASEAN in 1995, and APEC in 1998. The third round of negotiation for WTO membership is in progress at the time of writing. The Vietnam-US Bilateral Trade Agreement (BTA) came into effect in December 2001. Export duties to the US will generally decrease from 40 per cent to four per cent.

8.7.5 Indonesia

Indonesian culture is influenced by a number of external cultures, including Indian, Islamic, Dutch, French, British and Japanese. During the second half of the twentieth century, Indonesia was a leader amongst non-aligned nations of the Third World. Since 1967, Indonesia has enjoyed close economic and social co-operation with neighbouring countries such as Singapore, Malaysia, Thailand and the Philippines through ASEAN (Association of South East Asia Nations). At present, ASEAN covers ten Southeast Asian countries including Lao PDR, Vietnam, Myanmar, and Cambodia. By the year 2003, AFTA (ASEAN Free Trade Area) will commence and shift the region's economy to a free market.

Indonesia is an important global location for the manufacturing industry. A large number of multinational companies exist in Indonesia carrying out production and/or marketing activities. Examples of this can be found:

- in the automotive and component industry with Toyota (Japan), Hyundai (Korea), Chrysler (USA), Goodyear (UK)
- in the electronic industry with Siemens and ABB (Germany), Philips (Netherlands), Sanyo (Japan), Samsung (Korea) as the lead companies
- in cosmetics, households and healthcare products with Unilever (Netherlands) and Johnson & Johnson (USA); in pharmaceuticals with Bristol Myers Squibb (USA), Merck (Germany), Otsuka (Japan) and Bayer (Germany)

- in the food industry with Nestlé (Switzerland); in the mining industry with Newmont and Freeport (USA) and British Petroleum (UK)
- in insurance with Allianz (Germany), Ing Aetna Life (USA)
- in the banking industry with Standard Chartered Bank (UK), Citibank (USA), ABN AMRO (Netherlands) and HSBC (UK).

The number of foreign investment projects during 1997-2002 (excluding oil and gas, banking, non-banking financial institution, insurance and leasing) totalled 6,613 projects with values over 94.1659 billion US$. From this number, the top five investor countries of origin are:

1. the United Kingdom with US$15,274.4 million (16.2 per cent)
2. Japan with US$10,401.5 million (11 per cent)
3. Singapore with US$7,124.5 million (7.6 per cent)
4. Malaysia with US$6,007 million (6.4 per cent)
5. and Germany with US$5,643.6 million (6 per cent).

Investment from joint countries has the value of US$15,182.9 million (15.1 per cent).

This strength in manufacturing industry coexists with a weakness in services. Indonesia has a long way to go to catch up with most of its ASEAN neighbours as a global location for eWork. Whilst this may partly be due to a lack of skills as well as some recent political difficulties, it is clear that Indonesia does not offer a hostile environment for Foreign Direct Investment.

8.7.6 Sri Lanka

With historically strong links to Britain, its former coloniser, Sri Lanka possesses a major competitive advantage in its pool of skilled English-speaking graduates which has contributed to the growth of offshore back office operations and development units that have thrived since the early 1980s. High literacy levels also give a competitive advantage when compared with some other Asian countries, as do low wage costs.

Sri Lanka has succeeded in attracting major investment in the ICT sector, including from Telia, GTE Nortel, Ericsson, Telstra, Hutchison Wampoa, and Malaysia Telecom.

Deregulation has also resulted in the country's largest ever privatisation initiative, with NTT of Japan purchasing 35 per cent of Sri Lanka Telecom for US$225 Million.

Long-running political strife has created a disincentive to investment in recent years but it is anticipated that a peaceful solution will contribute to a rapid growth in eServices.

8.8 Conclusions

In many ways, the nations under study contrast strongly with each other. However, all offer high-potential human resources that can turn out to be the major resource for expansion of eWork in this region. Despite differential infra-structural development, all these nations have, to some degree, been developing strategies to build a knowledge-based economy in a period of rapid transition.

8.8.1 Thailand

As a global destination for eWork, Thailand is in some respects the victim of its own past success. A successful resistance to colonisation has left it with a lack of global language skills, and the results of past economic development have created a situation where costs, including labour costs, are somewhat higher than in several competing nations. Nevertheless, it also has a number of strengths. The Thai government has a clear IT policy, in the form of *IT2020* and organisation, in the form of an ICT Ministry which takes full responsibility for IT policy and implementation. IT infrastructure in large cities, where a majority of businesses are located, is relatively well developed and the telecommunication network is sufficient for the demand in big cities.

Also on the positive side, Thailand has rapid growth in its telecommunications and software industry, which will stimulate not only skill development but also internal demand. The current shortage of qualified IT graduates is likely to diminish as new graduates come onto the labour market every year. The quality of IT skills is also likely to improve as government organisations, educational institutes, and private training schools continue to upgrade their IT training courses.

However, there are several factors of concern that may negatively affect future growth. Firstly, there is inequality of infrastructure between regions. Secondly, although the software industry seems to be well encouraged by government, the telecommunication industry has no clear direction, without any National Telecommunication Committee (NTC) yet established. Thirdly, the development of IT laws has been rather slow. And finally, at least in the short term, the country lacks a highly skilled English-speaking IT workforce.

8.8.2 India

India's success in the field of eWork is due to a combination of unique circumstances. Through investment in centres of excellence like the Indian Institute of Technology and the Indian Institute of Management, and particularly a network of universities, since the 1960s, India has been able to produce the knowledge workers of the 21st century just in time. India was able to capitalise on the severe

shortage of IT workers during the dot com boom of the late-90s and the Y2K boom to emerge as a leading software services provider. The Indian diaspora, which was earlier treated as a major cause for concern, acting negatively as a brain drain, has also led to business and money being funnelled back into the country.

Realising the opportunity that was knocking at the gates, the government both at the state and central levels moved to implement policies that can act as enablers for the industry. The reforms that were initiated in the early 1990s have begun to boost the annual growth rates of the country. There is a new dynamism and level of confidence in the country's capabilities which is expressed both in the popular press of the country and in the growing respect for India's abilities in the international arena.

However, there remain significant areas of concern. The biggest of these is the lack of infrastructure. Although the government is aware of the need to rapidly improve this sector, India is still lagging behind many of its competitor countries. Another concern is the political instability and the deteriorating relationship with its neighbour, Pakistan. Finally the wide economic and social disparities that exist within the country cannot be wished away. It is possible that as this industry grows within the country, and companies move towards the smaller towns and beyond the larger urban areas where they are currently concentrated, labour talent, which is a key factor responsible for India's success, may not be as easily available as it has been till date.

8.8.3 Sri Lanka

Sri Lanka has recently seen the development of a joint mission by Government, the private sector and other stakeholders to develop the economy on the basis of ICT as a foundation medium and build on the nation's human resources.

Advantages include one of the highest literacy rates in the world, impressive IT professionals in the private and government sectors, based upon traditionally strong standards of education, as well as a number of new IT training centres and IT hubs across the country. The Human Development Report classifies Sri Lanka as the most innovative and adaptive in the use of new technology in South Asia. Information Technology services are increasing exponentially in their contribution to economic growth.

This new economy is, however, being built on a relatively small base and late entry into the global eService market. Compared with its much larger neighbour, India, Sri Lanka has a lot of catching up to do.

Another cause for concern is the continuing political strife in the country that continues to drain national resources and act as a disincentive for inward investment.

8.8.4 Vietnam

When the EMERGENCE project carried out a global cluster analysis of statistics related to the growth of eWork, Vietnam emerged as one of the 25 countries classified as 'eHares', characterised by exceptionally rapid development, including rapid telecommunications growth, but starting from a low economic base.

Vietnam has considerable potential for developing information-processing work with a fast-growing telecom infrastructure, a political stability, a hard working and competent labour force with relatively low cost, and a multi-language environment. However, Vietnam is a relatively new player in the field of services and not widely known as a destination for outsourcing; eWork-related industries are still in an early stage of development.

On the negative side, the development of eWork in Vietnam is affected by the poor telecom infrastructure with relatively high telephone and Internet charges, and short-term obstacles towards communication with the rest of the world. A large part of the Vietnamese population still lacks European language skills and for the rest of the world, Vietnam remains fairly mysterious, with a lack of accurate information. As a result of this poor communication, exaggerated assumption based on distorted stereotypes are often held by those not directly involved in business relationships with the country and these can act as deterrents to foreign companies and governments.

8.8.5 The Philippines

The Philippines offers many good reasons to expect a continuing growth in eWork, including the people, location, abundant resources, business-friendly policies, and unlimited business opportunities for outsourcing to be a success. These include initiatives like that of the Philippines government to allow private sector participation in developing infrastructure and services in the country, through the innovative and successful Build-Operate-Transfer scheme, a model now being followed by other countries.

In a recent study by the US-based Meta Group, the Philippines was ranked first worldwide in the availability of knowledge-based jobs and workers worldwide, and fourth among Asian nations in its labour quality.

The unique edge comes from a high level of proficiency in English (the Philippines is the 3rd largest English-speaking country in the world). The Philippines also offers state-of-the-art telecommunications facilities, and an adequate and uninterrupted power supply.

However, in the current political situation in the world (with the Philippines linked with some terrorist groups) new foreign

investors without experience of the country may not find investing in eWork in the Philippines so attractive. A speedy resolution to the war against terror will therefore be to the benefit of the country.

8.8.6 Indonesia

Indonesia, with more than 200 million people, will become one of the biggest markets for ICT related business in the future. The sector has recently opened up for competition and the growth of eWork will depend on the strategies of private companies business in developing investment opportunities.

There are, however, several major barriers. The rural areas are underdeveloped, with industrial and business activities in Indonesia heavily concentrated in a few major cities (Jakarta, Bandung, Surabaya and Medan).

Further barriers are posed by the Government's failure to take action to regulate and facilitate the IT-related sector, to impose law enforcement and to perform good governance. The commencement of AFTA should make the Government work harder to attract investments in the IT sector, because investors will have more choices of locations to invest in. There are also demands from industry for Government to address some of the other concerns of foreign investors, such as high taxation and operational costs.

Indonesia clearly has a long way to go before it can begin to compete with India or the Philippines as a global back office.

9. Summary and Conclusions

Ursula Huws, IES

The Asian EMERGENCE research was carried out during a period when there was a sharp escalation both in public awareness and in public concern about global outsourcing. Anecdotes can be found in any daily newspaper about global call centres in Dublin or Delhi, software development companies in Bangalore or Budapest or data entry factories in Madagascar or Manila. It would seem that the time has really come when any job requiring a keyboard or a phone can be located anywhere in the world where the right infrastructure is in place and workers can be found with the right skills at the right price.

In these discussions, Asia has been presented variously as the world's back office, as a threat to employment in all developed countries and as a site of exploitation of cheap labour. The flavour of these debates is captured in a recent article in *Wired* Magazine,

> *'Worried about India's practically infinite pool of smart, educated, English-speaking people eager to work for the equivalent of your latte budget? Get used to it. Today's Indian call centres, programming shops and help desks are just the beginning. Tomorrow it will be financial analysis, research, design, graphics – potentially any job that does not require physical proximity. The American cubicle farm is the new textile mill, just another sunset industry.'* (Pink, 2004)

One of the tasks of the project team has been to take a measured view of these developments, both from the Asian perspective and the perspective of Europe and Australia, and separate the hype from the reality.

The picture it found was a complex and dynamic one. The global restructuring of value chains that ICT has enabled is proceeding rapidly, with many features in flux. Nevertheless, some general conclusions can be drawn

9.1 Global relocation of work is moving from an experimental to a consolidation phase

In 2000-2001, when the EMERGENCE project carried out its first case studies, the relocation of work from Europe to other continents

was still often regarded as an experimental activity. Companies typically proceeded cautiously, trying out single functions one at a time before moving to a major restructuring, with heavy reliance on a remote supplier. It is clear that in the intervening period this phase has given way to another, whereby using remote suppliers has become a normal and routine part of daily activity. Company structures have been reorganised to enable them to increasingly take account of this new reality and relationships have been built up with suppliers and remote branches enabling more and more work to be transferred in less and less risky ways. Intermediaries and consultants have played a role in building up this market. Once a critical mass has been achieved, the process is further pushed forward by competitive pressures.

9.2 Relocation of employment is a continuing process not a single 'hop'

The relationship between the originating 'parent' organisation and the place where work is ultimately carried out is not necessarily a simple one. Often there are several intermediaries in the chain, perhaps based in different regions, countries or continents. The transfer of work rarely takes place as a simple handover. Rather there is a process whereby tasks may be passed across one at a time, sometimes after a prolonged period of preparation or training.

9.3 Not all relocations are successful or permanent

Many attempts to outsource or relocate work have failed, often because tacit knowledge has not been made explicit, or because of poor communications, poor quality work or failure to prepare the ground properly. Often an outsourcing relationship is explicitly designed as a temporary expedient, with no intention of continuing it. This might be intrinsic to the nature of the task (*eg* to develop a specific product or service). However, a temporary outsourcing may form part of a company reorganisation strategy or subsequently evolve into a more permanent arrangement. Once the tasks have been systematised and rendered easy to transfer, they may subsequently be brought back in-house but on different terms. According to one industry estimate, half of all IT outsourcing projects are regarded as failures (CNET, 2003).

9.4 Not all changes are driven by the demand side

It is often assumed that outsourcing takes place from a large and powerful organisation to a smaller and weaker one, with the terms of the deal driven by the demand side. With the emergence of large multinational corporations, as major players in the market for outsourced business services, this is no longer necessarily the case. Much of the incentive to outsource or relocate globally may be arising as a result of marketing initiatives taken by outsourcers

or their intermediaries, either directly or via the offer of consultancy services.

9.5 Jobs are moving between Asian regions as well as intercontinentally

As well as a movement of employment to Asia from Europe, North America and other developed regions of the globe, there is also a continuing and volatile movement of employment within Asia. This may take the form of movements from one State or region of a country to another, or from one Asian country to another. This process is partly driven by autonomous reorganisation processes within Asian corporations (following a similar model to the spatial and contractual reorganisation processes of large European or US corporations). However, it is also driven by a desire by Asian business services suppliers to remain competitive and to protect or improve their position in the value chain. Thus Indian companies may subcontract to cheaper Asian destinations such as Sri Lanka or China. In yet more cases, the process is driven by large global companies, which may set up branches in several competing Asian destinations.

9.6 The search for low cost is not the only driver of relocation

Whilst it is undoubtedly the case that low cost plays an important role in the choice of an Asian outsourcer or location for remote work, it is by no means the only factor and may often take second place to other considerations. These include quality, reliability, specific rare skills and 'the right attitude'. If one of these factors is missing, a potential outsourcer may be rejected, however low the price offered. In particular, remote customers may be prepared to pay a premium in order to guarantee continuity of service or high quality. This explains the continuing importance of Bangalore in the supply of software, despite the fact that wages there are three times higher than in some other parts of India, and even more so than in lower wage countries such as Vietnam. It also explains the apparent paradox that wages in firms offering export-oriented business services may be three or four times higher than those in firms serving the local market. Whilst they remain lower than in Europe and the United States, such wage levels cannot be regarded as 'exploitative' in any simple sense. Indeed the workers concerned often have better working conditions than their counterparts in more developed countries.

Any cost benefit analysis of global outsourcing has to take account of set-up costs, increased management and quality control costs, and the costs of transporting workers and managers from one site to another for training purposes. These may take several months

or even years to recover. For smaller companies, there is thus considerable financial risk involved in relocating work abroad.

9.7 A number of preconditions must be met for successful remote work

Successful remote working practices require a number of preconditions. These include clearly defined, explicit and standardised working procedures and quality control mechanisms, good and clear communication patterns, mutual cultural understanding and adjustment, and regular face-to-face meetings.

9.8 New eEmployment does not appear to be created in rural regions

Modern ICTs hold out a hope for bringing employment to remote and rural regions and thus bringing about much-needed economic development. The evidence is, however, that both in Asia and in Europe and Australia, the new jobs are overwhelmingly being created in cities, for a number of reasons including better and more reliable infrastructure, access to large population groups and proximity to educational institutes and other business services companies. It appears to be extremely difficult to create good-quality information-based employment without a critical mass of educated graduates and support services.

There is thus a risk of a growing polarisation between successful urban regions and excluded rural ones, paralleling the polarisation between countries that have found a niche in the new global division of labour in eServices and those which are excluded.

9.9 Jobs do not always disappear when work is relocated

The employment effects of job relocation are complex. When relocation takes place as part of an expansionary strategy, there may be gains at both the 'source' and 'destination', especially when the company increases its market share by successfully developing new products or markets. There may, however, be job losses in competing organisations that have adapted less successfully. When the strategy is one of consolidation or centralisation then there are more likely to be job losses at the source, though these are not always easy to quantify since the relocation almost invariably takes place in a general context of restructuring and changes in job descriptions. More commonly, there are no actual redundancies at the 'source' end but job numbers slowly decline through natural wastage whilst expansion takes place at the 'destination'. Some jobs are created in intermediary organisations but these are generally relatively few in number.

There have undoubtedly been a number of well-publicised cases of large-scale relocations of call centre jobs from Europe to Asia in recent years. It should be pointed out, however, that these have taken place in a context of general overall growth in call centre employment in Europe. Even in the United States, where the call centre market is more mature, Datamonitor estimates that there will be a continuing growth of employment in this sector of two per cent per annum (Best, 2003). The issue therefore, is more one of failure to continue to grow than actual overall employment reduction in many cases.

It seems likely that estimates of job losses in the IT sector in the US may also be somewhat exaggerated. IT outsourcing from that country to India is estimated to grow to US$57 billion by 2008. However, this US$57 billion (although it represents seven per cent of India's GDP) still represents only about 0.5 per cent of US GDP (Pink, 2004). Although avoiding the assertion that this will necessarily translate directly into jobs, McKinsey argues that there is net benefit to the US economy from offshoring:

> *'Far from being bad for the United States, offshoring creates net additional value for the US economy that did not exist before, a full 12-14 cents on every dollar offshored. Indeed, of the full $1.45 to $1.47 of value created globally from offshoring $1.00 of US labour cost, the US captures $1.12 to $1.14, while the receiving country captures, on average, just 33 cents.'* (McKinsey, 2004)

Nevertheless, the mere possibility that work can be relocated to a lower wage environment puts downward pressure on wages and reduces workers' ability to bargain successfully for improvements. It may also be the case that new jobs are being created in different places, and for different social groups, than where the losses occur, with potentially negative impacts on employment. There are thus losers as well as winners in these processes, at the level of social and occupational groups, regions and countries.

9.10 Conclusions for policy makers

Taking a longer-term view, it is clear that the rapid development of eWork in Asia is leading to the equally rapid growth of a new professional and technical middle class in the Asian cities and regions where this growth is taking place. This is driving a general development process accompanied by an equally explosive growth in markets. The companies whose practices are bringing about the new global division of labour in information services also stand to benefit from access to these markets, as do the economies of the nations where they are based. The question facing policy-makers is how should these benefits be distributed throughout the population, to ensure that the 'losers' are not excluded from their share of the proceeds?

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