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The growth of white-collar offshoring: Germany and the US from 1980 to 2006

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Summary This paper investigates the growth of offshoring administrative and technical task by German and US firms. We consider the relevant theories and related factors that influence the decision to initiate and pursue offshoring. We link offshoring implementation decisions by German and US firms with technological and country-specific developments. We analyze external events that have enabled German and US firms to locate business processes offshore and we investigate the importance of both internal and external factors influencing offshoring decisions over time. We discuss differences in institutional configurations and highlight managerial implications for German and US firms.

Introduction

If we can believe what we hear and see in the media, the offshoring of white-collar jobs has tremendously increased in recent years. The bursting of the speculative stocks bubble of the late 1990s, pressure to meet the Y2K deadline, a downturn in the US economy following the events of September 11, 2001 and the subprime loan-generated banking crisis have prompted firms to re-evaluate their costs and look for ways to improve their productivity. Some firms have found the answer to their search for improved competitiveness, a well-educated and motivated workforce, and a means by which to increase service levels in white-collar offshoring. How did the offshoring of support functions evolve? Has it become the norm? To answer these questions, we take an evolutionary approach (Lewin & Volberda, 1999).

In the 1960s and 1970s firms appreciably increased locating their production processes to foreign, mostly lower-cost countries. In those early days, while outsourcing took hold and grew, it was nonetheless sporadic. It increased significantly in the 1980s, and there was a second wave in the 1990s with firms transferring technical and administrative work abroad, especially in IT, R&D, and with call centres (Bardhan & Kroll, 2003; Beulen, van Fenema, & Currie, 2005; Dossani & Kenney, 2003). A considerable difference in per-unit labour costs is a primary reason for transferring such activities from one country to the other (Farrell, 2005; Khan & Islam, 2006). Firms also found talented and highly-skilled work forces abroad (Couto, Mani, Lewin, & Peeters, 2006; Venkatraman, 2004). At the end of the

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decade, white-collar offshoring, particularly of IT, was in response to crushing pressure to meet the Y2K deadline for recoding legacy computer codes. Today, in some industries, offshoring is commonplace. Different functions require different levels of technological support. Substantial technological improvements, and accelerated economic development in lower-cost countries, made implementation of white-collar offshoring possible, and thus brought about the second wave of offshoring (Ramamurti, 2004).

A review of the extant literature shows that researchers have examined the effect of single causes, such as cost savings, and single external events, the launch of broadband for example, to explain the implementation of specific offshoring functions. For instance, Lewin, Massini, and Peeters (2009) show the impact of a cut in the number of American H1-B work visas issued in 2003 on the availability of science and engineering talent. Yet, relatively little research has been done on the overarching relationship between firm motivations for offshoring, the impact of specific events, be they technological improvements or changes in the environment of host countries, and the propensity to relocate specific kinds of support functions. Therefore, we aim to answer the following questions: What events initially prompted the offshoring of different support functions? What factors and events have led to an increase in offshoring over time? When did inflection points within certain support functions occur, and why? Do the answers to these questions differ depending on whether the focal firm is German or American? All of our research questions share the same objective, to investigate what influences decisions relating to the offshoring of particular activities to both nearshore and farshore locations (Kvedaravičienė, 2008). We focus on the United States and Germany because, although quite different, they share the distinction of being the leading economy in their respective continents.

We have divided this paper into five sections. In the first we describe the offshoring decision process, look at relevant theories and corresponding decision determinants and examine the external events and internal factors weighed by firms. Theoretical background outlines our methodology and describes our data. In Research data and methods we present our findings on the initial offshoring of specific support functions, and their subsequent growth. The growth of white-collar jobs offshoring discusses the commoditisation of offshoring and the limitations of our empirical investigation, presents managerial lessons, and makes suggestions for further research. We summarize our findings in the final section.

Theoretical background

When compared to the offshoring of production processes, the offshoring of support functions is a fairly new phenomenon. While a firm may have experience in the former, the viability of relocating white-collar tasks cannot be assumed, and different firm-level behaviours and strategies influence the decision to do so and the growth of offshoring activities.

Evolutionary adopting of offshoring decisions

The firm-level behaviour, the offshoring of functional tasks by some first movers, appears to have been done by trial and error (Lewin, 2005). The relocations of functions emerged in different ways, chiefly bottom-up. This mirrors the early phases of new industries and innovations: random, trial and error, disorganized, anarchic (Lewin & Peeters, 2006), or as Volberda and Lewin (2003) described internationalisation paths, ''naïve evolutionary journeys''. Evolutionary journeys in combination with later imitating behaviour led to growth in the past. Later imitations by other firms have been observed for many innovations (Nelson, 1991, 1995).

Previous studies found indications that this also holds true for white-collar offshoring. Some firms were innovators, first movers in relocating functions, others were imitators (Massini, Lewin, & Greve, 2004). Furthermore, first empirical studies indicated that only a few firms are involved in the early stages of initiating, shaping and developing such a strategy, while most firms adopt it once there is a certain level of codification and standardisation (e.g., Bass, 1980; Lewin & Massini, 2003; Mahajan, Muller, & Bass, 1990; Rogers, 1983). Such late moves are typical (Haunschild & Miner, 1997; Haveman, 1993). Obviously this means that offshoring starts slowly, but the mimetic behaviour of late adopters can lead to a bandwagon effect later on. Different behaviours, both trial and error and imitating, can lead to different paces of growth for different support functions. It remains to be confirmed that these indicative observations hold true for a larger population as well.

But, how do firms decide to offshore functional tasks? External events and internal factors that trigger changes in the decision-making process of firms in combination with firm to firm varying managerial experience and availability of resources lead to different decisions about offshoring activities.

External events as enablers for offshoring

Following the early work of Coase (1937) and of Williamson (1975, 1985) on the profitability of various transactions within firms, the geographical dispersion of tasks, especially the offshore relocation of services, has an influence on transaction costs (Blinder, 2006). Therefore, transaction cost economics argues that firms decide to offshore only when cost advantages at the offshore location outweigh increasing transaction costs. As transaction costs are time and location sensitive (Langlois, 1992; Williamson, 1985), globalization and technological innovation have contributed to ease worldwide interaction and lower transaction costs. However, transaction costs are associated with a number of factors, including cultural and geographical distance (Dibbern, Winkler, & Heinzl, 2008). To investigate the impact of external events on transaction costs we look at technological innovation, IT and data communication, and country-specific environment such as changes in the political conditions. Ramamurti (2004) argues that technological improvements and economic liberalization were major events that triggered a boom in offshoring technical and administrative work.

Technological innovation in terms of information and communication technology (ICT), that is computers and telecommunication equipment, has been a major part of the story behind the boom in the 1990s in foreign business investments (Basu, Fernald, Oulton, & Srinivasan, 2003; Jones, Bowonder, & Wood, 2003). The ICT revolution has dramatically changed

the ability to transfer information and the cost of doing so. According to Farrell (2003) the cost of sending one trillion bits of data has plummeted from US$ 150,000 in 1970 to US$ 0.12 in 1999. Such improvements allow for document and process digitalisation, worldwide data communication, and the operation of support functions in dispersed locations. These improvements in information technologies and communication infrastructures as well as a decrease in the expectation of person-to-person interactions between consumers and service providers (see ''Uno-Actu Principle'' Bhagwati, 1987), has resulted in lower transaction costs and in new opportunities for the offshoring of support functions (Dossani & Kenney, 2006; Farrell, 2005; Khan & Islam, 2006; Levy, 2005; Mehta, Armenakis, Mehta, & Irani, 2006).

Furthermore *country-specific environment* such as political conditions and economic circumstances (Kraatz & Zajac, 1996; Tolbert & Zucker, 1983) in offshore countries can also motivate first movers to offshore support functions. Several offshore countries have lowered their entry barriers (Khan & Islam, 2006). Kapur and Ramamurti (2001) have highlighted such economic liberalization using the case of India with its freely tradable Rupee, policies that allow for 100% ownership of subsidiaries, and 70% decrease in tariffs. Such developments have led to new opportunities in administrative and technical work offshoring. Similar developments have also taken place in other low labour-cost countries, and have resulted in a decrease in transaction costs.

Cultural, historical, political, social and economic dimensions of a nation-state influence managerial practices and organizational strategic adaptation (e.g., Chandler, 1990). A specific nation-state configuration is reflected in particular managerial practices and leads to significant different ways firms are managed by. Institutional configurations, such as role of government, legal system or culture, are reflected in managerial practices, such as strategic paradigm, employment relationship or governance structure (Lewin & Kim, 2004). The government, as the key institutional player is expected to create opportunities and establish constraints on organizational actions. The introduction, or change in policies or regulations plays a key role in the emergence of new phenomena such as offshoring. The legal system significantly influences flexibility in business practices, and this includes offshoring. According to Weber, Hsee, and Sokolowska (1998) risk-taking behaviour is influenced by culture and this in turn influences the preference for offshoring. Hence firms of the same nation-state exhibit similar offshoring behaviour.

As globalization and technological innovations are lowering transaction costs, these events trigger offshoring and influence when the initial relocation will take place. Such changes appear to be important motivations for offshoring decisions (Antras, Garicano, & Rossi-Hansberg, 2006), and in some cases cause a boom in the offshoring of specific support functions. Nonetheless, although these external improvements are available to all firms, only a limited number have made use of them.

The influence of internal factors on offshoring decisions

We have shown how specific external events enable the offshoring of certain support functions. Though such events are the sine-qua-non of white-collar offshoring, the internal factors hypothesised by existing theories which we discuss below are the main drivers motivating early movers to decide to offshore functional tasks.

The motivations and constraints behind the decision to offshore support functions are akin to those behind expanding abroad. Internationalisation motives include changes in a firm's organization and processes, proximity to specialised labour, complementary suppliers and customers, and access to new markets and additional knowledge pools (Baaij, Van Den Bosch, & Volberda, 2004; Birkinshaw, Braunerhjelm, Holm, & Terjesen, 2006; Marshall, 1890; Porter, 1990). Therefore, it is internal motivation factors that primarily determine the outcome of offshoring decisions and thereby the increase in specific offshored support functions over time.

Cost reduction is the primary reason early movers offshore (Beulen et al., 2005). However an offshoring decision may also be a sign of ''commoditization'' of particular white collar processes. Once a process becomes commoditized it is widely imitable and hence no longer confers unique advantages to a firm or network of firms thus it makes sense to offshore it. (Sinhá & Van de Ven, 2005). Firms decide to offshore depending on their individual situations and their surroundings, e.g. competitors and home location. Such decisions are done by management assessment (Caves, 1980). As the number of firms, especially firms bound to the same institutional configuration, with offshoring activities increases so also does the intensity of competitive pressure. That competitive pressure will lead to cost reduction. We analysed the importance of costs along three motivational factors in our data sample: *labor cost savings*, *competitive pressure* and *accepted industry practice*. While the factor ''labour cost savings'' is an exclusive measure for cost advantages, which has been investigated by many scholars (Vernon, 1966), the other two factors also incorporate other underlying motivations (e.g., flexibility, time aspects). When competitive pressure reaches a given threshold, management is forced to decide whether to relocate certain support functions to another region, and once a sufficient number of firms have decided to offshore it becomes an industry standard.

Cost savings have been the main reason for offshoring in the past, but the importance of other factors has increased over time (Lewin & Peeters, 2006). The decision to offshore can lead to higher operational flexibility and create comparative and competitive advantages, among which are (1) better physical, human and organizational resources (Barney, 1991; Kogut & Zander, 1993), and (2) better access to a global resource pool which allows firms to strengthen their human resources and to raise entry barriers against competitors (Wernerfelt, 1984). For instance, firms might be motivated by a shortage of qualified engineers in their home countries (Lewin et al., 2009). John Chambers, the CEO of Cisco Systems, highlights this in saying, ''The jobs are going to go where the best-educated workforce is with the most competitive infrastructure and environment for creativity and supportive government'' (Friedman, 2007). Therefore, offshoring support functions is a strategic reaction to a misalignment between the institutional structure and the macro environment in which a firm is embedded (Oliver, 1991), especially with regard to the *access to*

qualified personnel. An illustration of this is the shortage of qualified engineers in the US, which became apparent in 2003 when the annual quota of H-1B work visas was reduced from 195,000 to 65,000. However, global access to qualified personnel differs in importance across support functions. In less personnel intensive support functions, the lower share of personnel in total costs reduces the benefits that can be obtained by replacing domestic by less expensive offshore employees. Offshoring, both as a business strategy and as an internal process, can be the outcome of the successful management of resources, and may itself represent a direct application of firm-level capabilities as predicted by the resource based view (Doh, 2005).

An increasingly competitive market requires both ongoing reductions in cost and improvements in level of service. *Improvement in the level of service* has especially gained in importance. In fact, in the early stages of white-collar offshoring, firms were willing to compromise on the level of service to achieve other goals such as cost advantages. But it has become essential for firms to improve their existing expertise, and to generate new know-how in order to strengthen their position in the market (Zander & Kogut, 1995). Knowledge creation by individuals and groups (e.g., offshore service providers) is particularly important in this regard. Nonaka (1994) names this dimension of knowledge creation ''ontological knowledge''. Assigning a particular individual to do a specific task can increase the speed of knowledge generation, but it is difficult for firms to parcel out tasks in this way because their human resources are limited. However, by offshoring support functions to a remote location, firms can free personnel to focus on the core business at home and this may promote better service. The increase in offshoring has also meant that certain regions have been able to specialise in providing given support functions, even specific tasks. Specialisation, increasing business volume, and an accelerated learning process have allowed service providers to maximize ontological knowledge creation. Thereby these firms become home to very high-quality service providers, fulfilling yet another motivation for offshoring, namely improvement in level of service.

Theory thus shows that white-collar offshoring is influenced by both the particular situation that exists at a particular location at a given point in time, and firm-specific motivations. External events like technological innovation and a firm's country-specific environment, both of which change over time, combined with internal factors lead to different offshoring decisions at different times. Labor cost savings (Farrell, 2005; Khan & Islam, 2006), competitive pressure, accepted industry practice, access to qualified personnel (Couto et al., 2006; Lewin & Peeters, 2006; Venkatraman, 2004), and an improvement in level of service are also increasingly relevant. We therefore consider the importance of these external events and internal factors when firms are considering whether to offshore.[1]

Table 1 illustrates the events and factors that motivate firms to offshore and the underlying theories on the implementation of white-collar offshoring.

A firm's decision to offshore often hinges on the timing and relevance of these different external events. As a result, at any given point in time, the number of simultaneous implementations will vary. In general, the introduction of new technology, or the innovation of a process, may cause a strong increase in offshoring (Dalal, 2007). We would expect the foundation of businesses at the inflection point, and that over time there would be one, or even multiple, inflection points for each support function, though they are of varying distinctiveness and difficult to quantify.

Research data and methods

Our objective is to analyse the initial and subsequent development of the offshoring of various support functions. We begin with first movers in 1980 and follow the trend of ever-increasing white-collar offshoring up to 2006, the end-date of our data.[2]

Multi-layered data are necessary and appropriate for inductive research (Eisenhardt, 1989; Yin, 1981). Lewin and Volberda (1999) point out that evolution involves multiple levels of analysis. We have chosen to use data gathered at two levels, the firm and the environment, to capture processes and to identify generative mechanisms: firm data are offshored support functions and motivation factors, and external data are technological innovations and country-specific events.

Our firm-level data is derived from the Offshoring Research Network (ORN) database. Lewin and Peeters (2006) describes in detail the purpose of ORN, a project funded by the Center for International Business Education and Research (CIBER) at Duke University, the survey process used to gather data, and its characteristics. Following the same approach we extended the ORN database by gathering relevant internal data for a sample of German firms (see Appendix A for a detailed description of the data collection process of the firm-level data). This allows us to perform comparative analyses between 119 German and 231 US firms. All of the data were extracted from well-documented information on the offshoring decision process including underlying reasons and constraints. Relevant information on the decision takes different forms depending on firm size and type. Large firms generate extensive reports that include all of the pros and cons, smaller firms document their decisions mainly in minutes taken at meetings. In addition the informants gathered relevant quantitative information on previous offshoring activities from the annual reports of their firms.

Thirty-five percent of our sample of German firms account for 178 offshoring implementations between 1980 and 2006. Of the remaining 65% that have not offshored, 14% are considering it, 42% have not considered it, and 9% have decided against it. In contrast, 139 of the 231 firms in the US sample made 587 offshoring implementations between 1980 and 2006. Both the total number of offshoring implementations and their start dates indicate that US firms are the first movers.

In our investigation we focus on firms that have already undertaken offshoring implementations. Some of the questions we asked in the survey are: Have you offshored your

[1] Though the availability of a Shared Service Center (SSC) in the home country can also influence an offshoring decision, we do not consider SSCs in this study.

[2] Outliers were removed in the following analyses.

Table 1 Reasons for offshoring and underlying theoretical perspectives.

Events/factors	Theoretical perspective	Motivations for offshoring	Key references
Technological innovation	TCE	Decreased transaction cost enabling access to low cost human resources	Coase (1937), Williamson (1975)
Country-specific environment	TCE	Infrastructural and economical improvements at offshore location	Khan and Islam (2006)
	Institutional theory	Favorable institutional configuration allowing substantial structural changes	Chandler (1990)
Labor cost savings	Internationalization	Decreasing total cost by leveraging low wage levels at offshore location	Vernon (1966)
Competitive pressure	Industrial organization	Competitive pressure forces management to offshore activities	Caves (1980)
Accepted industry practice	Industrial organization	Frequent offshoring activities influence management decisions	Caves (1980)
Access to qualified personnel	RBV	Availability of highly-skilled work force at offshore location improves a firm's competitive advantage	Barney (1991)
Improvement in level of service	Organizational learning	Focusing on individual tasks on a large scale improves level of service	Nonaka (1994)

call centre activities? If so, when did you transfer those activities abroad? Did access to qualified personnel motivate you at that time? We asked questions about offshoring activities for seven support functions in all. We also asked questions about underlying motivations for going abroad.

The *offshoring activity of different support functions* was measured as a dichotomous variable differentiating between a function offshored or not. We also obtained the date for each offshored support function. To investigate the underlying motivations for positive offshoring decisions we used five different variables, *labour cost savings* (LCS), *accepted industry practice* (AIP), *competitive pressure* (CP), *access to qualified personnel* (AQP) and *improvement in level of service* (ILS), and asked respondents to rate them on a five point Likert scale.

The data collection process for external data focussed on identifying external events from industry reports, scientific articles and books (e.g., Friedman, 2007) on technology and country-specific developments. We queried the Internet, using ICT, IT, data communication and deregulation as keywords for technological external events, and FDI for country-specific events. Undoubtedly, historical political decisions and events, the fall of the Iron Curtain for instance, triggered changes in offshoring. Our final selection of specific events was guided by our theoretical assumptions, and by the persuasive arguments of other researchers focusing on offshoring (e.g., Dossani & Kenney, 2006; Lewin et al., 2009).

Our research design compares the development of offshoring for specific support functions. We used a combined quantitative and qualitative research strategy, which allows for drawing conclusions beyond quantitative analysis of firm-level data. Our intention is to investigate the relation between firm offshoring behaviour and environmental changes, and by doing so to identify the causes of offshoring activities within firms.

We applied a visual mapping method to trace key events along a time trend. To understand institutional dynamics, it is important to appreciate how different firms interpret technological advances and country-specific events (Edelman & Suchman, 1997). We investigated the relationship between such advances and events and when firms initiated offshoring activities (Figure 1), and subsequent offshoring growth (Figures 2—4).

Our quantitative research strategy focused on the number of offshorings per year and per function, on the date of the first support function offshored, and the importance of different motivating factors, e.g., labor cost savings, when making a decision to offshore, which allowed us to discern patterns (Langley, 1999).

Our qualitative research strategy focused on identifying key historical events (Langley, 1999). This analysis allowed for the development of a narrative on, and a timeline of, such events, and for showing the relationship between them and the offshoring of particular support functions. These events, along with technological advances, explain the whys and wherefores of offshoring. We employed the Miles and Huberman (1984) data reduction method, data displays, and interpretation and verification. First, we achieved data reduction by distinguishing between two categories of external events. Second, we represented these categories in two data displays to explain the occurrence of initial offshoring activities and the change in growth rates. The first data display (technological innovations) captures key advances in technology, including the launch of the Internet and the deregulation of the telecommunications industry in the US. The second one (country-specific environment) includes country-specific changes, the fall of the Iron Curtain and the opening up of India to foreign direct investments. Third, we relied on our contextual knowledge of the emergence of white-collar offshoring to draw conclusions from the available data. Content filtering, categorizing and integrating data yielded to contextual indicators for developing and guiding the narrative (Pentland, 1999).

We combined both strategies for data interpretation. We put firm level and external events on the same time line. Quantitative strategy shows the impact of the change of motivation factors on the number of offshoring activities.

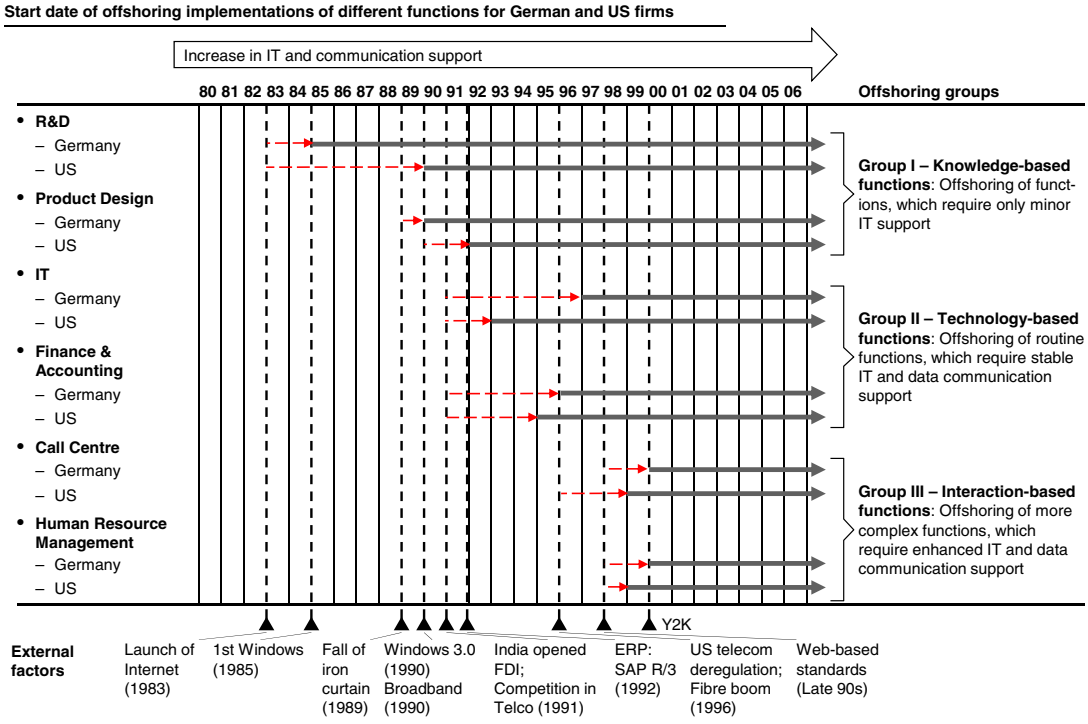
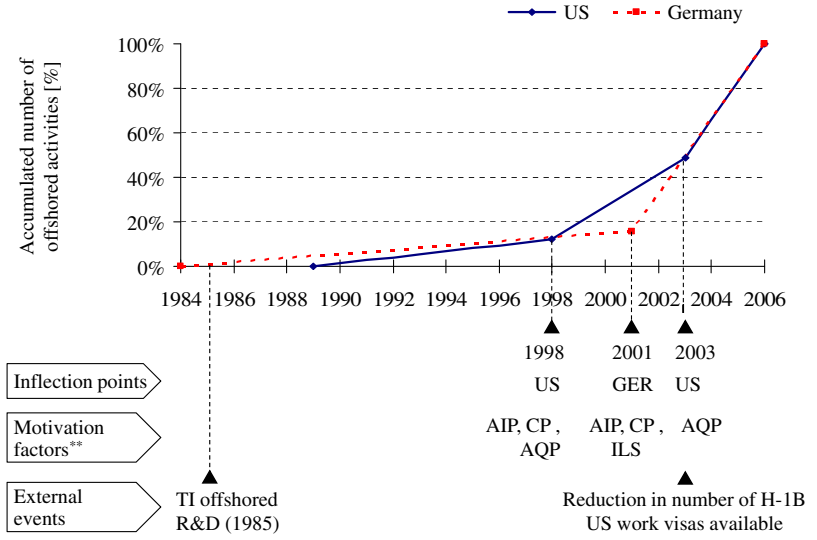


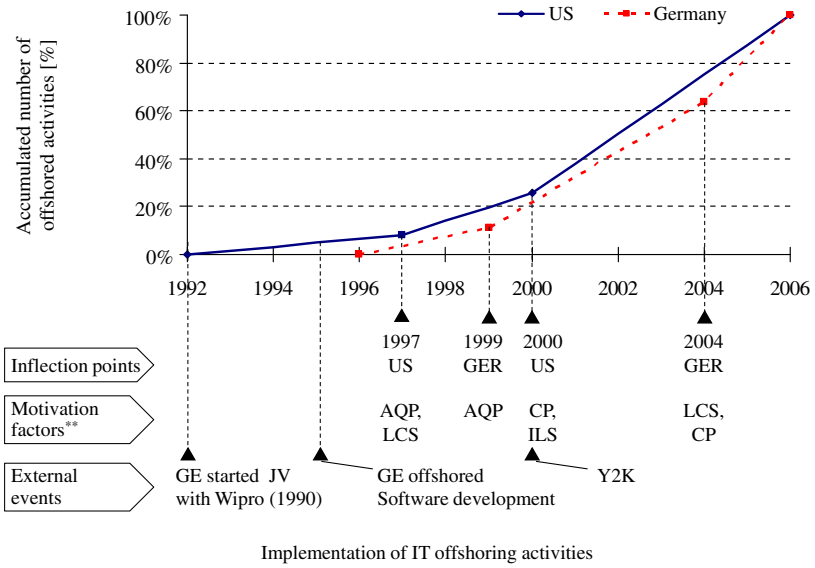
Figure 1 Initial offshoring activities of different offshoring groups.



* Based on 19 activities of German firms and 39 activities of US firms
** AIP: Accepted Industry Practice, CP: Competitive Pressure, AQP: Access to Qualified Personnel, ILS: Improvement in Level of Service

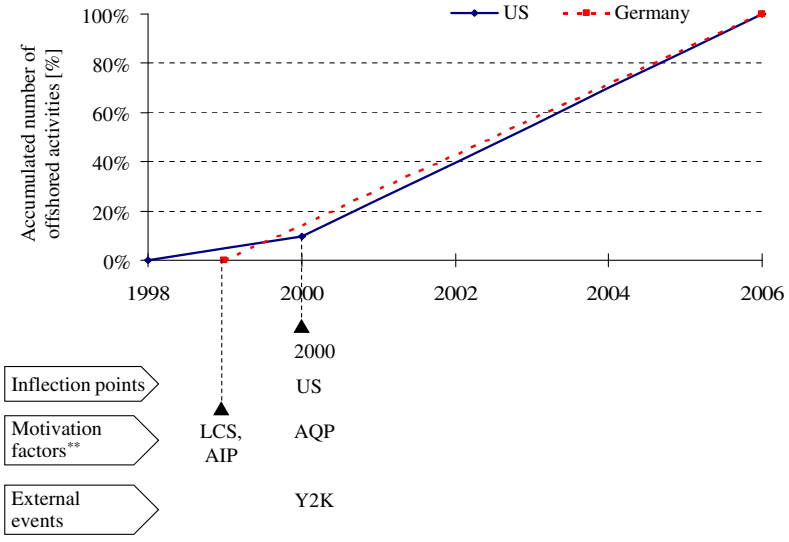
Figure 2 Cumulative number of R&D offshoring activities*.

The qualitative strategy maps key external events and gives interpretations on the relationship between these events and the development of offshoring. Therefore the results of our investigation are a combination of a quantitative, e.g., effect of an increase in the need to access qualified workers, and a qualitative interpretation, e.g., effect of a labour shortage for a particular kind of worker in the US in the late 90s. These strategies when taken together allow for a comprehensive investigation into the development of offshoring.



* Based on 43 activities of German firms and 88 activities of US firms
** LCS: Labour Cost Savings, CP: Competitive Pressure, AQP: Access to Qualified Personnel, ILS: Improvement in Level of Service

Figure 3 Cumulative number of IT offshoring activities*.



* Based on 21 activities of German firms and 53 activities of US firms
** LCS: Labour Cost Savings, AIP: Accepted Industry Practice, AQP: Access to Qualified Personnel

Figure 4 Cumulative number of call centre offshoring activities*.

The growth of white-collar job offshoring

Initially the offshoring of specific support functions was primarily influenced by technological and country-specific external events. Later, political decisions, which on one hand forced firms to look for solutions outside of their home country, and on the other opened up some countries to the possibility of receiving work from abroad (Khan & Islam, 2006), were influential. The first movers were firms that had managers who were quick to learn about emerging opportunities in offshoring and to make decisions to transfer activities abroad.

However, it was primarily technological innovations, developments in IT and data communication, that first led to reduction in transaction costs and to white-collar offshoring opportunities. Based on our data, we classified support functions into three groups, based on the degree of IT and communication support required and on the timing of their offshoring. Our analysis is based on our database which, while comprehensive, cannot present a full historical picture of the offshoring phenomenon.

The first group is knowledge-based and includes R&D and product design. The second group is technology-based and includes IT, and finance and accounting. Finally, the

interaction-based group includes human resource management and call centres. The level of IT and communication support increases significantly over the groups. As we show in Figure 1, the time period during which the initial offshoring of a particular support function takes place is linked to the IT and communication support that is required to make it possible. Different triggers for initial offshoring activities provide answers to our first research questions and an explanation for the differences between US and German firms.

Triggers for knowledge-based functions — R&D and product design

Based on our data sample the first relocations of German firms' R&D activities took place in 1985 and of product design in 1990. For US firms, R&D was first relocated in 1990, and product design in 1992. Firms offshored specific tasks of both kinds of support functions mainly using captive modes, e.g., wholly owned subsidiaries.

In the early 1980s any exchange of written communication with abroad subsidiaries was limited to airmail resulting in long cycle times. Related high transaction cost outweighed the advantage of available low cost engineers at offshore locations. To allow offshoring for to the most part autonomously R&D tasks the only prerequisite is a simple transfer of the status and the results of R&D work between multiple locations at reasonable cost and cycle time. These requirements were fulfilled with the introduction of two technological improvements: (1) the launch of the internet in 1983, which basically was the start of standardized worldwide data communication, with standards developed over time and new protocols and applications (e.g., email service) continuously simplifying data exchanges; and (2) the introduction of broadband in 1990, which enabled quick end-to-end communications for frequent interactions. These technological innovations reduced transaction costs and acted as enablers for offshoring of R&D activities.

In addition to data communication changes, IT improved tremendously. Graphical user interfaces were developed and using computers became easy enough for just about anybody. Manual processes became digitised, and digitisation of processes is a prerequisite for digital data communication between geographically dispersed locations. While the initial version of Windows in 1985 already included a graphical user interface (GUI), the real breakthrough occurred with Windows 3.0 in 1990 which at more than 10 million copies was the first widely used version of windows. With the quick and widespread penetration of Windows 3.0 more and more applications emerged, and they led to the digitisation of parts of the product design process (e.g., Autocad). Using broadband connections and the Internet, results could easily be exchanged between multiple locations.

At the same time there were marked changes in German institutional configuration influencing risk-taking behaviour and a firm's preference for offshoring. The fall of the Iron Curtain led to new opportunities for German firms to relocate processes to the former communist countries of Eastern Europe. The proximity of the offshore subsidiary or provider made regular interaction even easier, especially in terms of voice and data communication as there was no time zone difference and some cultural similarities. The less culturally distant two countries are, the lower the differences in the organizational characteristics of their firms (Lincoln, Hanada, & Olson, 1981), and the easier it is to transfer managerial techniques and values, and to maintain relationships with suppliers, governmental institutions etc. (Gatignon & Anderson, 1988; Stopford & Wells, 1972). The possibility of holding spontaneous meetings in person during the launch of offshoring should any difficulties arise, convinces even doubtful managers to attempt offshoring to a close neighbouring country. Moreover, limited cultural and geographical differences lead only to a minor increase in transaction costs (Dibbern et al., 2008), which in combination with low-cost personnel yield to an overall cost advantage. In the case of Germany, the availability of well-educated but lower-cost engineers in the nearshoring region Eastern Europe, in combination with the changes in institutional configuration, motivated firms to offshore R&D and product design. These findings confirm that technological improvements and economic liberalization were major events (Ramamurti, 2004) leading to decreased transaction cost for offshoring R&D and product design activities. In combination with low cost engineers a total cost advantage was achieved and triggered offshoring of knowledge-based functions.

Triggers for technology-based functions — IT and finance and accounting

The ORN data show that US firms started to offshore IT, the first of our second group of technology-based support functions, in 1993. The US also took the lead in transferring finance and accounting functions in 1995. Germany followed in 1996 with finance and accounting and 1997 with IT.

Between 1993 and 1997 technological developments spread to lower-cost countries. Building on the previous offshoring of R&D and product design, the provision of data communication to lower-cost countries allowed for still more offshoring. India, particularly Bangalore, focused on the learning of individuals and became the centre of IT offshoring. Political decisions, often the key to country-specific changes, lead to changes in the institutional configuration favourable to the supply of offshore services. For instance, the Indian government opened the telecommunication sector to competition in 1991 (Friedman, 2007), which allowed for rapid improvement in the local infrastructure for data communication. In fact, the main data communication improvements during this period took place in lower-cost countries. Such infrastructure improvements were only possible because they were made simultaneously with the political decision to change FDI regulations. Manmohan Singh, then India's finance minister, began opening the Indian economy to foreign investment in 1991, making it much easier for firms to invest in a subsidiary and in their own data communication infrastructure, satellite downlink stations for example. Thus, they were able to bypass the Indian telephone system and connect directly to home bases in America, Europe, or Asia. Changes in the country-specific environment led to a different institu-

tional configuration, which motivated first movers to offshore technology-based functions and to make use of existing advantages, such as low cost labour or highly qualified workforce, at abroad locations. These findings are in line with Kraatz and Zajac (1996) arguing that changes in political conditions and economic circumstances motivated first movers to offshore technology-based functions.

Furthermore, ongoing improvement of Enterprise Resource Planning (ERP) software enabled the distribution of activities to multiple small, location-independent computers (Jacobs & Weston, 2007). SAP presented this feature with the release of SAP R/3 in 1992. The main functionality that distinguished R/3 from previous ERP systems was its use of client–server hardware architecture that could run on different operating systems and was designed with an open-architecture approach, an improvement that significantly simplified geographically dispersed provisioning of finance and accounting. Without such a system the related transaction costs would have been far too high. These developments in software, in combination with the setting up of foreign subsidiaries with up-to-date IT and communication infrastructure, allowed for the offshoring of IT and finance and accounting support functions to low-cost countries.

Triggers for interaction-based functions — call centres and human resource management

Based on our data sample US firms started to offshore call centres and human resource management (HRM), including simple (e.g., pay roll services or support of recruiting) and more complex activities (e.g., human resource planning and controlling or executive development) in 1999, kicking-off the offshoring of a third group of support functions which required substantial IT and data communication support. German firms followed with activities in both areas in 2000 (Holman, Batt, & Holtgrewe, 2007).

There was also an increase in demand for customer support because of the software adjustments required for Y2K. Firms handling interaction-based functions had to provide additional capacity and to extend their operating hours, but they had limited resources and financial constraints. Improvements in IT and data communication, in combination with location-specific advantages, made it possible to extend capacity in lower-cost countries accordingly. These countries changed their political conditions and economic circumstances (Tolbert & Zucker, 1983), lowered their entry barriers (Khan & Islam, 2006) and thereby changed their institutional configuration motivating first movers to offshore interaction-based functions. Going offshore provided firms with access to a less expensive, highly skilled, and more flexible workforce, and they made use of the opportunity offshoring gave them to improve their existing resource base.

Call centres require, among other things, fast database inquiries. Call centre workers need ready access to various customer data. This can be achieved by worldwide access to the same firm-specific and customer information in real-time. That data originates from different locations and must be synchronized on a frequent basis. Alternatively, each inquiry taps into a central database. Real-time worldwide data access requires fast and reliable data communication, sometimes between different continents, and sophisticated applications, especially in light of the increasing volume.

Telecommunication deregulation in the US in 1996 initiated worldwide improvements in data communication infrastructure. Driven by a strong increase in data transfer, primarily made possible by new Internet applications, and spurred on by increased competition from telecommunication upstarts, more established providers began to invest heavily in infrastructure. Competitors were fighting for market share within the US and also for the provision of long-distance communication. Massive investments were made, including the installation of large national and international fibre connections. The new infrastructure that became available, combined with new data transmission standards, provided a base for the required fast and reliable communication of data for offshoring of interaction-based activities. Our analysis confirms that globalization and technological innovation were enablers for easier worldwide interaction and lower transaction costs. Lower transaction and as a consequence lower total cost motivated early movers to offshore call centre and human resource management activities abroad.

Support functions also required enhanced standards and applications. Web-based standards especially allow location-independent access to specific applications. In the late 1990s such standards, like the Extensible Markup Language (XML) and the Simple Object Access Protocol (SOAP), became available. Today nearly every web-based application relies on one of these standards. Human resource management especially is an interaction-based business that requires frequent communication in standardized form. Web-based standards eased the implementation of new tools for standardized data communication.

We have shown how specific external events have been the impetus for the continuous improvements in IT and data communication over the past two decades. These improvements have been at the root of the offshoring of the three groups of support functions, and with the advent of each, the level of technological support has increased and transaction costs have decreased. We have shown too how these improvements were amplified by country-specific developments and led to new institutional configurations. For four of the six support functions on which we focus, we observe a difference of a couple years at most between the initial offshoring activities of German and US firms, and country-specific factors do not play a significant differentiating role on initial offshoring decisions. There is a difference of five years between the time German firms and US firms first transferred IT functions, and a time lag of 4 years between when US firms initiated R&D offshoring and when German firms did so. Figure 1 summarizes the groups and the differences for certain support functions and countries.

In the following section we will show the influence of external events and internal factors on the development of offshoring, including inflection points of different support functions over time.

The impetus for an increase in offshoring is twofold. Firms can relocate a specific support function abroad, or they can decide to locate the necessary capacity extensions offshore. Implementations of both kinds are offshoring from the firm perspective (Kenney & Dossani, 2005), and the same events and motivations affect the decision to offshore

whether it be to replace the home workforce or to locate new facilities there. Therefore, in the following analyses we do not differentiate between relocation of an existing operation and the creation of new capacity.

Evolution of a group I support functions — R&D

The first observable inflection point for offshoring R&D differs between Germany and the US. Although German firms start offshoring of this function five years earlier the first inflection point occurs in the US. In fact, only a few US firms offshored R&D prior to 1998, and it was another three years before offshoring of R&D was frequently used. Limited interaction with offshore R&D activities kept an increase in transaction costs low and allowed offshoring activities as early as the 80s.

For firms of both countries, achievable cost reduction was an important motivation to offshore R&D. This motivation is seen increasing from the first inflection point onwards. The internal motivation to achieve cost savings was reinforced by industry acceptance (AIP) in both countries and by competitive pressures (CP). This finding confirms that for firms bound to the same institutional configuration the pressure to decide for offshoring R&D activities increased by others transferring activities abroad. During the decision process firms assessed the given situation during management assessments (Caves, 1980) and decided to imitate what others did. This means managers acting within the same institutional configuration are often motivated to decide to relocate R&D activities by what their competitors are doing. For instance, early offshoring of R&D by Texas Instruments (TI) in 1985 motivated other US firms to offshore their R&D work as well. Early moves by international firms were often motivated by political favours (Delios & Henisz, 2003) as by locating in emerging countries firms brought in money and generated jobs. After TI's incorporation of a fully owned subsidiary, and its initial focus on development and the support of proprietary computer aided design (CAD), in 1998 TI India began designing integrated circuits themselves and developed software for applications other than CAD (Texas Instruments, 1998). When firms are uncertain about the potential merits or shortcomings of relocations and are in doubt about appropriate organizational strategies, they adopt mimetic behaviour and simply copy (DiMaggio & Powell, 1983) the organizational structures and processes of early movers.

As we pointed out earlier, Lewin et al. (2009) argue that there are two potential explanations for firms seeking to access talent by offshoring, a shortage of qualified personnel and a reduction of labour cost in combination with improvements in quality. R&D offshoring was caused largely by a lack of qualified engineers (AQP). Around 1998 the unemployment rate in the US decreased to 4%,[3] i.e., full-employment. This explains in part why US firms looked for qualified human resources elsewhere to maintain their competitive position. Five years later the problem was exacerbated by the cut in the number of available H-1B visas which drastically reduced the number of well-educated engineers that could come to the US to work. This forced firms to offshore still more R&D tasks and caused another inflection point. Offshoring not only allowed firms to close the gap on needed qualified human resources, but also granted better access to a global resource pool of well-educated engineers. Recruiting employees out of nearly infinite global pool allowed firms to strengthen their human resources and to raise entry barriers against competitors (Wernerfelt, 1984). Those better qualified human resources led to higher operational flexibility and created comparative and competitive advantages (Barney, 1991).

Oliver (1991) argued that firms react to a shortage of talent in different ways at different points in time. The increase in white-collar offshoring by German firms was not a quest for qualified labour, a benefit they have long-enjoyed, but was aimed at the second motivation suggested by Lewin et al. (2009): improving the level of service (ILS). A growing number of very specialized offshoring clusters for certain R&D tasks in new EU countries following the first EU eastern enlargement, along with accelerated ontological knowledge generation as individuals focused on specific tasks and consequently improvements in quality, motivated offshoring decisions in Germany from 2001 onwards (see Figure 2). This result confirms that it became essential for firms to improve their existing expertise in order to strengthen their position in the market (Zander & Kogut, 1995). A large group of East European engineers returned home from West European countries, including Germany, where they augmented local talent to provide high-quality offshore services at low cost.

Evolution of a group II support function — IT

What firms maximize varies across different institutional configurations. By and large US firms primarily maximize shareholder value and this motivated US firms to first offshore IT in 1993. In contrast, German firms stress long-term growth and so for the most part they did not follow until 1997. After 1997, IT transfers picked up analogously. The Chairman and CEO of General Electric ''Jack'' Welch met with Indian government officials in 1989 to pave the way for forming a GE-Wipro Technologies joint venture in 1990 to develop medical equipment in India (Solomon & Kranhold, 2005). GE expanded activities in 1995 by contracting significant parts of its software development and maintenance to Indian firms. The role of Infosys Technologies Ltd., another Indian firm providing IT services, also increased in the early 90s with an initial public offering in 1993.

The first inflection point for IT functions occurs for Germany in 1999 and for the US in 1997. This suggests that Y2K was an external event that significantly influenced the increase in IT offshoring as firms scrambled to update their software and at the same time to keep up with regular business processes. To maintain their competitive position firms had to strengthen their resource base by recruiting additional qualified workers. This measure confirmed the motivation to decide for offshoring because of a shortage of qualified engineers in the home countries (Lewin et al., 2009). But for many firms such an offshoring decision also was an outcome of the successful management of resources (Doh, 2005) resulting in a revised business strategy. In this case, instead of just solving the Y2K challenge, firms often

[3] Source: International Labour Organization; Labour Force Survey.

replaced their legacy systems with new ERP software which brought along other technological advances as well (Jacobs & Weston, 2007).

In the US, internal motivation coincided with the external Y2K phenomenon, and this trend has continued to be strong. Driven by the lack of a qualified work force (AQP) at home, and the cost advantage (LCS) of transferring tasks to lower-cost countries, firms began to transfer coding and other tasks abroad. IT offshoring gained in acceptance, and the inclination toward white-collar offshoring has increased constantly in the US since 2001, as more firms are motivated to offshore in order to remain competitive (CP). A similar phenomenon took place in Germany, first with an increase in 2002 in the need for labour cost savings (LCS), then about a year later with increased competitive pressure (CP). Competitive pressure can push managers to try to 'keep up with the Joneses'. The heightened motivation to offshore was followed by a significant rise in offshoring and thus another inflection point in 2004 for IT transferring by German firms.

All of these factors combined led to more decisions to offshore, which in turn led to a high growth rate of IT offshoring. Nonetheless offshoring is concentrated in a limited number of locations, primarily certain areas in India, where firms specialise in these kinds of support activities. The high concentration of IT work there has caused an accelerated learning process achieved by designating tasks to individuals and as a consequence a rapid increase in service quality (ILS), and this has motivated especially US firms to improve their service levels through offshoring since 2001 (see Figure 3). This result confirms the importance of ontological knowledge creation (Nonaka, 1994) by individuals and groups (e.g., offshore service providers) to make offshoring an attractive opportunity for decision makers to improve the level of service when offshoring IT activities.

Evolution of a group III support function — call centre

The high technological requirements of relocating call centre operations made such moves very difficult before 2000. However, some US firms had implemented their first offshore call centre by 1998. Initial call centre offshoring by German firms occurred during 1999. The increased need for call centre capacity around 2000 to support customers with Y2K issues prompted firms to attempt to lower costs of call centre operations. The main objective of firms was to leverage the available low cost work force in foreign countries (Jones et al., 2003). Firms globally searching for the lowest total cost of delivery of support functions is in line with the results of various studies based on transaction cost theory. Reduced transaction costs in conjunction with the availability of a large pool of highly skilled labour motivated firms to offshore in order to increase their competitive position. The earlier start by US firms in 1998, and the increased need prior to 2000, resulted in an inflection point. Since then offshoring of call centre has started to become industry standard and advantages of conducting these activities at the home location have started to disappear.

While US firms, similar to what we see in their offshoring of IT, increased call centre offshoring primarily because of a lack of available qualified personnel, for German firms cost aspects, labour cost savings and accepted industry practice, were the impetus from 2000 onwards. The observed lack of qualified human resources is in line with a country-wide very low unemployment rate from 4% to 5% in this particular industry.[4] US firms struggled with high employee turnover rates and related high training cost for new employees. While in India call centre jobs are a desirable career option, in the US they are seen as dead-end jobs. Lewin et al. (2009) argue that access to talent has an underlying cost aspect, that is, firms hire qualified workers offshore to reduce cost, in essence because the cost of call centre agents and back office personnel in lower-cost countries is so advantageous that labour cost must be the main reason to offshore the support function. This explanation for call centre offshoring is in line with the pattern seen in manufacturing offshoring to lower-cost countries (Gereffi, 2005). Therefore, we conclude that firms are largely motivated to offshore by arbitrage considerations.

However, call centres are a customer-facing function and therefore firms cannot make too many compromises, especially in terms of quality as any decrease in quality directly affects customer satisfaction. The repetitive nature of the tasks handled both in centralized captive offshore subsidiaries that manage large volumes of contacts and by multi-firm external service providers ensures an accelerated learning for individuals and subsequently high-quality offshore call centre service.

We observed constant growth in call centre offshoring in both countries as motivations to do so increased. The continuous development, the lack of major technological improvements after the launch and the late occurrence of the initial activities caused only one inflection point so far. The relatively rapid rate at which German firms increase offshoring, particularly compared to the rise shown by US firms, is an interesting phenomenon (see Figure 4). So far there is no definitive explanation for this phenomenon, though one possibility is that German firms set common standards early on. Those common standards were disseminated by the media, speciality magazines for instance, and quickly accepted by German managers.

For every support function we have highlighted, we notice that one of the last two periods of highest offshore implementation increases coincides with the events of September 11, 2001 in the US. However, we do not observe any specific inflection point for offshoring in 2001 or in the subsequent year. The only observable inflection point which occurred in 2001 was for the offshoring of German R&D, but it did not depend on those events. The economic downturn, affected first US firms and subsequently spread to other countries. Furthermore, barriers to laying off employees in Germany, including governmental and societal strictures on taking such steps, made it difficult for firms there to immediately adapt to increasing cost pressures. Therefore, the events in the US and the inflection point of R&D functions in Germany in 2001 are not related. Although there is no specific identifiable inflection point, the economic downturn was a major driver for the strong increase in offshoring activities beginning at that time. This argumentation is in line with a higher rate of increase in labour

[4] Source: International Labour Organization; Labour Force Surveys.

productivity in subsequent years, which indicates that firms had to react to increasing efficiency and cost pressure.[5]

Our analyses lead us to four conclusions. First, while country-specific and political events did play a role, the primary impetus for the initial wave of support function offshoring was an advance in technological capabilities and the related decrease in transaction costs. IT and communication technology remain the main enablers for offshoring, which explains later offshoring of support functions with high demand for technological support. Second, achieving cost savings and getting access to qualified personnel are the main motivations behind an increase in offshoring activities over time. Third, changes in these motivations, in conjunction with external events, led to the abrupt increase in the number of offshoring decisions, and the occurrence of several inflection points. Fourth, the initial offshoring activities of German and US firms occurred within the same time period. While German firms were the pioneers of knowledge-based function offshoring. As we have said, US firms took the lead in the offshoring of technology-based and interaction-based functions. For this reason and also because of different institutional configurations, mainly political and historical events, inflection points occur at different times in the two countries.

Discussion and limitations

White-collar offshoring increased steadily beginning in 2000. The limited trial and error forays of early movers were increasingly mimicked by late adopters as functional task offshoring became standardised. Such mimetic behaviour correlates with the first inflection point in the evolution of certain support functions. The first consolidations have taken place, e.g. the acquisition of Office Tiger by RR Donnelly in 2006. Still, we argue that commoditisation has not yet been reached nor have the related bandwagon effects peaked. Dalal (2007) came to the same conclusion arguing that business process outsourcing has not become another globalisation tool along the same line as technology foundation, process innovation, standards, benchmarks, and best practices, but that the trend is in that direction.

In order to reach commoditisation, two key drivers are required: First, an inflection point needs to be observed. Second, a standardization of the concept is required. Although we observed multiple inflection points during the time period analysed, we argue that these points were mainly triggered by lowered transaction costs as a result of improvements in technology and changes in the policies of host countries and not by commoditisation. Additionally, offshoring increased with a shift from emergent to deliberate strategies. Although offshoring providers started to increase the ontological knowledge of individual employees by focusing on specific tasks, they, both captive and non-captive, will have to make significant investments to become experts in specific support functions. This will lead to further inflections points and to commoditisation of the offshoring of support functions in the future. From a standardisation of the concept perspective, all components of services have to be well defined, understood and communicated. This means a complete standardisation and innovation of all process steps. This process has started with having individuals focus on specific tasks and thereby improving the quality of services. However, we have seen no evidence as of yet of that degree of standardisation, although among all of the support functions we have considered, IT comes closest. Once standardisation and commoditisation is reached bandwagon effects will accelerate the growth of offshoring activities. Even then managers need to carefully consider the pros and cons of offshoring, because backshoring normally is more costly than continuing to incur the increasing costs of offshoring (Cha, Pingry, & Thatcher, 2008).

Not all US and German managers today see offshoring as a strategic opportunity. This supports our argument that commoditisation has not been reached yet. Our analyses show differences in the behaviour of US and German managers. The way managers make offshoring decisions are influenced by country-specific factors. For all of the support functions we investigated we observed fewer and later inflection points in Germany. We argue that this is due to differences in institutional configurations. In Germany changes in institutions can be very slow, and public policies, while stable and predictable, tend to be slow to respond to emerging interests among the public or to other environmental discontinuities (Lewin & Kim, 2004). The German legal system is also less flexible because changing existing laws, or enacting new ones, takes considerable time and effort, and those that would apply to offshoring are no exception. Downsizing, especially reducing the number of employees, is subject to many constraints, indeed impossible in some circumstances, which means that German firms are at a significant disadvantage compared to those in the US in this regard. Moreover, the provisions in German laws that safeguard jobs can make employees inflexible when it comes to learning new skills and performing different tasks when the activities in which they were previously engaged are offshored. The US institutional environment is also more favourable in this respect. To stay competitive German managers need to find a way to overcome barriers and so to take full advantage of offshoring opportunities. In the future managers in both countries should not disregard the obvious trend towards global dispersion of support activities, but become fully-engaged in the race for cost and service leadership.

Our study illustrated that the required IT and communication support varies among different support functions. Before conducting any offshoring activity managers need to verify if the available technological support at the targeted offshore location is sufficient. In case of existing gaps managers either need to invest in infrastructure first or otherwise the targeted offshoring location is not suitable. Our research confirms that institutional changes have been strong drivers for offshoring decisions. Similar to the past institutional configurations will change also in future. Instable institutional configurations require an ongoing monitoring of upcoming external events and related technological and environmental changes at locations of existing offshoring activities. Changed institutional configurations could impact offshoring either positively or negatively. For example, if India's increase in salary continues, the attractiveness of IT offshoring in India will disappear over the next years. As a consequence, there might be more attractive

[5] Source: EU Klem database.

alternatives to offshoring activities located in India. Therefore, managers are forced to steadily monitor offshoring activities and to re-decide if needed. When reviewing the prior decision also the importance of various internal factors could have changed. Over time new factors emerge and old ones disappear. Thus, for managers offshoring will be remain on the agenda instead of being a one-time decision shot.

As our analysis shows offshoring is a process of organizational transformation. We hypothesize that future transformation processes will be triggered by similar external events such as new technological innovations and changes in country-specific environment. In order to make use of early adopter advantages it is worthwhile for managers to install an alert mechanism to identify such events. But, there is no one size fits all approach for corporate transformation. Rather the transformation process is dependent on tasks, institutional factors, as well as the stage along the population adopting curve of such transformations.

Naturally, our analyses are not without limitations. First, we are limited by the offshoring record of the firms that participated in the ORN survey on which we rely for data. Other researchers might address this shortcoming by integrating secondary data on offshoring activities of non-respondents. We focused our investigation on highly relevant external events and motivations but there are other factors that can influence the development of offshoring activities. Future research might concentrate on other motivation factors, other external events, risk factors, or the influence of the prior governance mode in Germany, in order to gauge their effect on the offshoring decision and the related development of offshoring activities. In addition, investigations of the influence of a firm's strategy on an offshoring decision and of the role of bounded rationality in offshoring decision processes would be valuable contributions to this research. Finally, we recognize that all relationships between external events and any occurring inflection points are not based on information provided by the informants. We suggest that in the future researchers include questions on key external events in their surveys so as to examine their relevance for individual firms.

Conclusion

We investigated the growth of white-collar offshoring. We analysed the relationship between external events and internal influencing factors, when initial offshoring occurred, and its growth over time. We first reviewed relevant theories of offshoring, and thereby introduced a set of relevant factors influencing the decision to offshore. We classified support functions into three different groups, knowledge-based, technology-based, and interaction-based, each of which was offshored at different times. However, within each of these groups, most of the offshoring activities occurred for both German and US firms during the same period. There were two inflection points for R&D, a knowledge-based function, and one for call centres, an interaction-based function. The difference in the institutional environments of the US and Germany led to the fewer and later occurrences of inflection points.

Appendix A. Data collection process for firm-level data

During the empirical phase we gathered relevant internal data for a sample of 119 German and 231 US firms. Our inquiries focused on firms that had relocated support functions, not on the service providers to whom the functions had been outsourced. The main goal of the survey that we wrote, and also that of the ORN initiative, was to track a specific sample of firms and the changes in their offshoring of support functions over time.

Sufficiently detailed knowledge of firm multiple offshoring activities typically is available from just a few individuals within a firm. For this reason, we first had to determine who was the single most qualified informant within each organization. To do this we contacted firms and solicited the cooperation of managers. We then sent the managers who agreed to assist with our research an online questionnaire that we estimated would take between 10 and 30 min to complete depending on the number of offshoring activities.

We clustered the firms that participated in five groups depending on whether they (1) had not yet considered offshoring support functions; (2) were considering the possibility of offshoring support functions for the first time; (3) were in the detailed planning stage of offshoring support functions; (4) already had offshored support functions; (5) had decided against offshoring support functions. A different and specific set of questions was prepared for each of the above clusters as applicable. In this paper we focused on cluster four asking questions along the following topics:

- Current status of offshoring activities: offshored support functions, location of the service provider, governance mode.
- Factors influencing the decision to offshore or not offshore: various motivations and risk factors.
- Preparation for and implementation of offshoring activities: planned and achieved savings, reached service level
- Future intentions: planned offshoring activities, repatriation of functions to home country.

For our purposes in this paper, we made use of the data gathered from the first two categories that is offshoring activities and motivating factors.

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