

The emergence of markets and capabilities, dynamic transaction costs and institutions: effects on organizational choices in offshored and outsourced business services in China

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Abstract

We present evidence about the effects of dismissals-for-cause requirements, a specific component of employment protection legislation that has received little attention. We study a quasi-natural experiment generated by a law introduced in Portugal: out of the 12 paragraphs in the law that dictated the costly procedure required for dismissals for cause, eight did not apply to small firms. Using matched employer-employee longitudinal data and difference-in-differences methods, we examine the impact of that differentiated change in firing costs upon several variables over a long period of time. In our results, we do not find robust evidence of effects on job or worker flows, although some estimates suggest a slight increase in hirings. On the other hand, firms that gain flexibility in their dismissals exhibit consistently slower wage growth and sizeable increases in their relative performance. Our findings suggest that reducing firing costs of the type studied here increase workers' effort and reduce their bargaining power.

Keywords: offshoring, China, business services, institutions, dynamic transactions costs

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Abstract

This paper has three aims: 1) to use Langlois' framework of dynamic transaction costs to illustrate the coevolution of firm capabilities and the emergence of new markets for offshored and outsourced business services in China; 2) to use Coase's institutional structure of production framework to analyse the influence of Chinese institutions on the organizational choices made in the offshoring and outsourcing of business services in China and 3) to link the two themes and understand the interaction between Chinese institutions and the emergence of markets and capabilities in business services in China. We use case studies and interview data to look at these issues.

Keywords: offshoring, China, business services, institutions, dynamic transactions costs

Introduction

The offshored and outsourced business services market has been developing rapidly as firms disintegrate both vertically and horizontally to focus on what they perceive to be their essential activities. China has been a particular destination for these services and in the process of stripping them out of western manufacturing and services firms, the services have been reorganized into units that are thought to be more efficient modes of provision.

Several questions concern us here in this paper: What are the changes in the structure and characteristics of business services and the capabilities of firms and markets that have enabled the process of outsourcing and offshoring to occur? What has been the influence of the institutional structure in China and its effect on organizational form: why have some firms adopted in-house offshoring whilst others are using specialist third party firms? And if firms are outsourcing as well as offshoring, why are some choosing local service providers and others international specialist firms? To tackle these questions we use transaction cost theory and in particular the framework outlined by Langlois (1992, 2003) which in addition to considering the traditional Coasian/Williamsonian framework of contractual transaction and governance costs incorporates a dynamic view of the development of capabilities in both firms and markets. Langlois (1992) argues that it is the combination of both types of effects – transaction/governance costs and capabilities of firms and markets – that drive the decisions as to which activities to keep within the firm and which activities to buy in or outsource from other firms. This framework has been adopted and developed by Jacobides (2005) in looking at the vertical disintegration and emergence of markets in the mortgage banking sector. One aim of this paper is to develop Langlois' ideas about dynamic transactions costs and the coevolution of capabilities in firms and markets and apply them to

the case of the offshoring and outsourcing of business services in China using case study and interview material collected on a variety of organizational types of service providers and clients.

Our second aim is to understand how the institutional context in China affects the choice of organizational form. The framework of Coase's 'institutional structure of production' (1992) has also been applied by Jacobides and Winter (2005) where they disentangle the coevolution of capabilities and transaction costs in explaining the institutional structure of production in both the mortgage banking industry in the US, which went from integration to disintegration, and the Swiss watch-manufacturing industry which went from disintegration to integration. Emphasis on the institutional structure of production is particularly relevant for offshored/outsourced services to China because it identifies the idiosyncratic nature of certain institutions in China – in particular property rights and relationships with the government - that drive the choices of organizational form. For example we argue that the choice of state-owned local providers for procurement tendering contracts is driven by the need to be close to government policy and procurement decision-making; the choice of in-house offshoring for financial services has been driven by the weakness of data protection and poor protection of property rights; and the choices of state-owned local providers for human resource recruitment services or for procurement services are driven by the need for access to local government-owned personnel data and knowledge of local labour markets.

Our final aim is to bring these two themes together to understand the interaction between Chinese institutions and their effect on the emergence of firms' capabilities and new markets in outsourced and offshored business services. We use our case study and interview data to

place our examples of organizational choices on a grid that brings together the two dimensions of use of internal or external capabilities (adapted from Langlois 1992) alongside the institutional dimension characterised as degree of control through institutions over property rights and IPR in particular, access to information and data, and standardization of procedures.

Section 1 outlines the framework of dynamic transactions costs and the coevolution of capabilities of firms and markets and its relationship to vertical disintegration. It also discusses the changing nature of business services as they are being outsourced and offshored and relates that to Sako's (2005) distinction between vertical disintegration and corporate function unbundling. Section 2 outlines details of our interviews and case studies and Section 3 draws out results from those case studies and interview material, illustrating the evolution of firms' capabilities and the emergence of new specialist markets in these services and highlighting the relationship between perceptions of institutional idiosyncracies and choice of organizational form. Section 4 concludes.

Section 1 Coevolution of capabilities and transactions costs and the institutional structure of production – our framework

We build on the traditional transaction cost framework as identified by Coase (1937) and developed by Williamson (1980) affecting the outsourcing decision of whether to make in-house or buy from a separate firm through the market. These costs focused on transaction costs of using the market (buying in from other firms) in the presence of specialized assets, uncertainty and the scope for opportunistic behaviour giving rise to the

problem of hold-up between firms due to information asymmetries and the difficulties of specifying complete contracts particularly in situations which demanded relations over the longer term with changing demands. The original Chandler-Williamson solution to these hold-up dilemmas was to contain complex processes in-house and only to outsource those processes that could be more fully specified through contracts. Langlois (1992, 2004) argues that a major weakness of the Williamson approach is the assumption that at any point in time the choice exists for a firm between using the market or making components in-house. Williamson's theoretical point that 'In the beginning there were markets' is historically not true; this is not an accurate representation of how new market sectors or industries emerge in terms of new firms coming into being that can provide the relevant products or services via the market.

Langlois introduces the idea of 'dynamic transactions costs'. Firms' capabilities change over time and markets learn, which are reflected in the costs of transferring the firm's capability to the market and vice versa. These dynamic transactions costs are the costs of persuading, negotiating, coordinating with and teaching others in the face of technological and organizational change. It may sometimes be costly to create within firm capabilities that are available on the market, and vice versa. Langlois defines these dynamic governance or transactions costs as the costs of not having the capabilities you need when you need them. He uses the example of Ford having to make parts in-house as market alternatives did not exist: mass production required different inputs and changes in the production process. Existing suppliers were generalists using batch techniques; the new processes were mass production ones. It was less costly for Ford to make parts than to teach suppliers who were ill equipped to understand what Ford required. Indeed Ford was not in a position to know

what to teach them; its invention of moving assembly lines for different parts was a process of capability building and trial and error learning. Over time, other firms' capabilities developed, allowing processes to be outsourced. Langlois points to three factors that tend towards the emergence of new markets. First, the pattern of existing capabilities in the firm and market may be inappropriate as a division of labour for new requirements, either through being widely distributed among firms and other organizations in ways that require a reconfiguration of those capabilities, or through being contained within the boundaries of large firms which are slow to adapt and reconfigure existing capabilities to new opportunities. Second, the nature of the economic change or technological development may lead to new profitable opportunities that require the reorganization of capabilities; and third, the market-supporting institutions, such as standards, may not exist and need to be created from scratch (Langlois 2004). Jacobides (2005) and Jacobides and Winter (2005) emphasize the intertwining of the evolution of capabilities, specialization by firms and the transactions costs that they face: they argue that for vertical disintegration and vertical specialization to occur there need to be differences in capabilities along the value chain and that transaction costs coevolve with specialization if those differences in capabilities exist. The shaping of vertical scope (the part of the value chain each firm specializes in) over time is driven by a selection process, itself driven by capability differences, and transaction costs are changed by those firms in their efforts to reshape the transactional environment. In turn these changes in vertical scope affect the development of their capabilities over time, and changes in firms' capabilities affect industry capabilities ie how many firms participate and compete in this industry.

In general Jacobides (2005) and Jacobides and Winter (2005) argue that there need to be gains from specialization through different managerial styles or knowledge bases in different parts of the value chain and capability differences between different firms. The value chain at the industry level needs to be partitioned into separable activities and capabilities and coordination between nodes of the value chain needs to be simplified with a reduction in their interdependence, a standardization of information and its codification so that it can be transacted between independent organizations. In the case of the emergence of the US mortgage market, the government gave it a kick-start in providing a template organization for a mortgage-backed security in creating the Fannie Mae. The laying off of loan origination staff in the recession of the mid 1970s played its part; they were then rehired at first on a temporary basis when business picked up but as independent operators with the relevant and known capabilities.

Business services are an interesting case to study. They are particularly affected by IT and the digitalization of information. This has transformed services so that the data or information part of them can be made more standardized and routine. This also has meant that they can be depersonalized and dealt with via routines at a distance rather than through person to person dealings. This means they can be both part of a vertical disintegration process and outsourced to an outside firm and/or located offshore as geographical distance in terms of direct contact between producer and consumer has lessened in importance.

Sako (2005) makes the distinction in the case of business services between vertical disintegration and corporate function unbundling, applying this to the types of services that have been outsourced in the early 21st century. Corporate function unbundling draws on

Stigler's concept (1951) of general specialities such as railroads and shipping which apply across all industries. Sako draws out three distinctions between vertical disintegration and corporate function unbundling: 1) With vertical disintegration suppliers make inputs that go into clients' final products or services whereas with corporate function unbundling suppliers provide services in corporate functions such as Finance, Human Resources Management, Marketing or Purchasing. 2) With vertical disintegration upgrading or moving up the supply chain may involve an invasive strategy of competing in the same market as client firms; with corporate function unbundling upgrading involves a deepening of functional expertise which operates in a different market from the client firms' final market. 3) Related to this, with vertical disintegration the possibility of a bilateral monopoly is there with suppliers engaging in hold-up and buyers exercising monopsonistic power; whereas with corporate function unbundling client firms are in a weak position with no monopsonistic power vis a vis suppliers.

This relates to thinking about business services and their increased outsourcing and offshoring in the early part of this century because segments of the value chain relating to generic business services in a variety of areas have been redefined as separable segments requiring discrete capabilities and therefore able to be hived off from the core activities of many manufacturing and financial firms. These services have been general specialities which are used across the whole company and also apply across all industries. They are divided into IT-related services such as software development, management of IT infrastructure, network and desktop services, and Business Process Outsourcing and Offshored services such as Human Resource Management, Procurement, Logistics, and Management of financial and

accounting data. Thus specialized firms such as IBM and EDS are significant players in the provision of data processing services in this new segment of business services.

The other set of interacting influences on the organization of service provision, in particular in offshore locations in emerging markets, are those of the institutional environment in those countries. Coase (1992) introduced the idea of the ‘institutional structure of production’ whereby in a general sense the institutional environment, namely the strength of property rights, the transparency of and access to information, the nature of corruption or privileged access by groups to information or skills would all in general affect the way in which production is organized. The emphasis on institutions especially in emerging markets has come to the fore in recent literature. ‘Good’ institutions means clear and transparent property rights, clear contract enforcement upheld by the legal system, independence of the judiciary from the executive, a low level of bureaucracy and regulation and an accompanying low level of opportunity for corruption (Estrin and Prevezer 2008). The absence of these features of ‘good’ institutions in China, namely unclear property rights, unenforced or unenforceable contracts, lack of transparency in government contracts, lack of independence of the judiciary and opportunity for corruption in the enforcement of regulation, makes the influence of the institutional environment on organizational choice pronounced and was highlighted in interviews as one of the factors relevant in making such organizational choices.

Finally we bring these two themes together in showing how the interaction of the institutional environment with the emergence of firms’ and markets’ capabilities interact to produce a particular form of choices that firms are making in the outsourcing and offshoring

of their business services in China. We use an adaptation of Langlois (1992) which suggests how the evolution of outsourcing of activities emerges as firms' capabilities develop, overlaid with a picture of how organizational choices between in-house and outsourced provision are likely to be affected as the institutional environment moves towards western standards.

To summarise, the questions that this paper is addressing are 1) the coevolution of capabilities and transaction costs: how are these markets evolving in China in terms of the relationship between firms' capabilities and transactions costs and the emergence of specialized markets? In the context of Chinese service provision, is this vertical disintegration or corporate unbundling ie what kinds of services and what functions are being outsourced and offshored? 2) How much does organizational choice in China have to do with the particularities of Chinese institutions and adaptation to those institutions? 3) How do these two forces interact to produce the particular organizational choices that have been taken, and how are they likely to evolve in the near future as the institutional environment adapts alongside the emergence of indigenous firms' capabilities to challenge the existing capabilities of western firms in this arena of business services.

Section 3 Methods

We use a mix of case studies and interviews with different organizational types of providers. We have three IT outsourcing case studies: Procter and Gamble to Hewlett Packard, Dupont to CSC and China Netcom (CNC) to Huapu. And we have four BPO vendor case studies – of China Data Group, PG Logistics Group, Neusoft Park Industrial Development and Dairy Farm to Capgemini – all drawn from various IDC and Gartner consultancy reports. Details of our interviews are listed in Table 1. They are with a number of different types of service

provider and clients including Schneider Electric, HSBC Data Processing, Shanghai Oriental International Group, Bearing Point, Hewlett-Packard, Accenture, Motorola, Hehao Info, Su Teng Technology and Microsoft. This kind of material is required in order to unravel a number of issues for which detailed information on a case by case basis is required. It gives us a number of measures that can be related to the capabilities of firms and markets – details on the kinds of skills within the firms, the types of services that are being done, the changes in those services over time as capabilities increase, the nature of the contracts with providers and the types of monitoring that accompany the contracts. Specific questions were asked in the interviews relating to perceptions of institutional weakness and how that affected choice of organizational form.

Section 4 Results

Figure 1 Routes to offshoring/outsourcing of business services in China in our sample

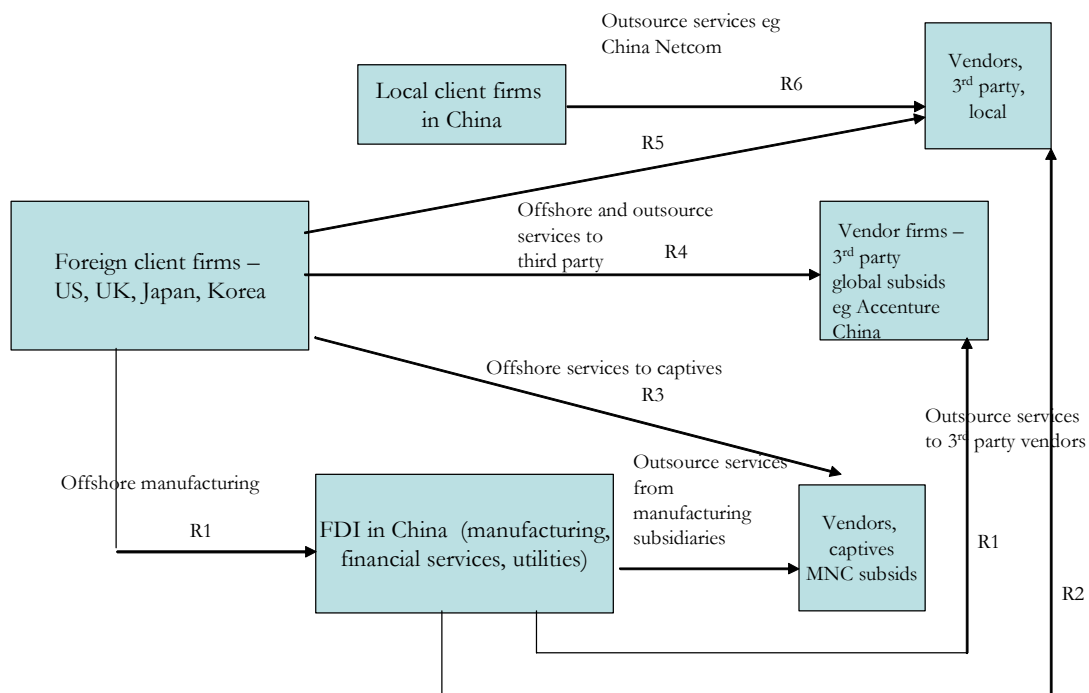


Figure 1 illustrates the various routes to offshoring and outsourcing that occurred in the process of offshoring of business services to China, taken from our case studies and interviews. Route 1 highlights the important role that foreign direct investment (FDI) in manufacturing has played; here manufacturing processes were offshored through FDI to China, and subsequently business services from those manufacturing subsidiaries were outsourced within China either to third party global firms' subsidiaries in China or to third party domestic firms. An example of this is in one of our case studies of the contract

between Procter and Gamble China with Hewlett Packard China. Route 2 is the case where business services are outsourced from an FDI subsidiary in China to a third party local vendor; such an example is of GE China outsourcing to FESCO, or Motorola Wireless Division to Su Teng Technology. Route 3 is where there is offshoring (but no outsourcing) of business services, directly from the client to a captive subsidiary in China; examples of this are HSBC to their subsidiary, or Microsoft to theirs. Route 4 is where there is offshoring and outsourcing of business services, directly from the client to global third party subsidiary firms such as BearingPoint China or Hewlett Packard China. Route 5 is offshoring and outsourcing services to a third party local firm. And Route 6 is where there is outsourcing (but no offshoring) from a local client firm, such as China Netcom to a local vendor firm or Huawei to Kehao.

Results from case study and interview material:

1)Coevolution of firms' capabilities and the evolution of markets

What kinds of capabilities have firms had to have for these markets to emerge? Markets have emerged in IT-based services out of the capabilities of IT firms in the computer industry. This process has drawn on the capabilities of IT firms that have existed in the computer industry, for example Hewlett Packard and IBM which possess the data processing capabilities that are relevant for the management of these generic services. In our case studies Procter and Gamble (P&G) outsourced their IT infrastructure to Hewlett Packard (HP) in 2003, giving as reasons the lower IT costs and better service level resulting from this specialization. P&G have restructured their regional services with one IT centre, provided by HP, to service other P&G subsidiaries in the Asia Pacific region. Dupont have a similar arrangement with CSC: they outsourced their call centre, desktop and server management in

15 countries in the Asia Pacific region. They are achieving cost reductions through the scale and scope economies of this corporate function unbundling throughout the region.

What kinds of markets are these new markets? This is relational contracting, not an arms' length market: these are very long and large contracts. For example P&G's contract in 2003 with HP was a \$3bn contract for 10 years. Dupont's contract with CSC in 2003 was similarly long-term and large with very careful selection procedures, long transition process, and a high degree of monitoring and communication. P&G's contract followed on from joint ventures and subsidiaries in China for P&G since 1998. The IT departments have acted as a bridge between the internal users and external providers. There is specialization and more formal monitoring owing to clearer processes and management systems. There is also a huge amount of coordination and communication required between the two firms. In the case of China Netcom CNC outsourcing to Huapu Information Technology, the 3 year contract for the help desk and call centre has consolidated the management of IT with better monitoring through the Service Level Agreements.

The extent of cospecialization with specialized capabilities for parts of the value chain differs for segments of the market; there are many small software firms that provide relatively standardized services so there is a thick market in that segment. Coordination along the supply chain is simplified, task interdependence reduced and information is more standardized. Whereas for higher value added services, more customized IT consulting and design of IT infrastructure is done by specialized firms, typically western firms performing to higher standards. Our case studies of Dupont outsourcing its IT function to CSC, P&G to HP or China Netcom to Huapu are examples of specialist provider firms where all IT

functions are consolidated within that firm and are serving all the local (Asia Pacific) subsidiaries of the client firm.

There are various niche markets in services within this sector, with a distinction between Western specialist firms and local providers in terms of their capabilities and therefore what they provide. Western specialist firms tend to provide certain services and processes higher up the value chain and local providers specialize in more routine processes. Western firms' advantages lie in superior standardized management processes and quality control. This division between the routine service and services that are more sensitive or core to the client firm can also be one between those services that are kept in-house and those that are outsourced to the local provider. There are exceptions to this: some local providers such as Su Teng Technology may be used for higher grade design work for their client Motorola, but this is done through exclusive relationships between the client firm and service provider:

“Su Teng Technology has very tight cooperation with Motorola Wireless Solution Division. The reason that Motorola outsources its solution development to Su Teng is that according to Ms Yin, the development cost and coordination cost are higher if Motorola keep this in-house. Su Teng works with Motorola to get orders from clients (eg Su Teng design solutions make demos etc). But to the clients, Motorola is the only vendor they are facing. And Su Teng never appears independently before clients”. Interview with Ms Yin, Su Teng Technology

The lower-value more routine work may be outsourced (subcontracted) further down the chain but the local outsourcers are chosen through their being known to the outsourcing firm, as reliable local markets for this kind of service provision do not yet exist:

“Su Teng outsources coding work to other companies. Normally they will divide the coding job into pieces to different outsourcers to avoid the software being pirated. Su Teng choosing outsourcer mainly depends on internal referral. According to Ms Yin, internal referral can assure they find skilled persons they can deliver high quality work while even a outsourcer has certificates like CMMI can not assure the people that the outsourcer assigns to work for Su Teng is qualified”. Interview with Ms Yin, Su Teng Technology

There is also a domestic outsourcing services market for instance in software development. For example Kehao provides software development services to Huawei, China's largest telecom equipment manufacturer (Route 6 in Figure 2).

“There are two ways that they provide outsourcing service to Huawei... The first one is that their people work in Huawei... Huawei is responsible for the people and work arrangement, project management and evaluation. While Kehao side is mainly in charge of their people training and performance evaluation. Another one is that Huawei send its requirements to Kehao and Kehao organizes their people to do software development in their own office. Huawei will review the project periodically to assure the delivers meeting its needs” Interview with Mr Yu, Kehao February 20 2006

The choice of outsourcing services rather than keeping them in-house here has to do with greater efficiency in specialization between the firms, alongside close contact and monitoring by the client firm of its provider of software development in this case.

How have these markets evolved? The path to outsourcing of business services has been in many cases via the client companies' prior experience of FDI in China. Thus in the case of Procter and Gamble outsourcing its IT infrastructure to Hewlett Packard, this followed from P&G's experience of joint ventures and subsidiaries in China since 1988 – in Guangzhou, Beijing, Shanghai, Chengdu and Tianjin with investments of over \$1bn and over 4000 staff in P&G China. In similar fashion Dupont's outsourcing of services to CSC was the culmination of FDI in China of \$700m since the mid 1980s with 24 subsidiaries or joint ventures and over 3000 employees.

It was also noted that standards and certification – CMM certification in particular – have played a role in establishing adherence to management procedures. There is much less CMM certification in China than India. One of the main differences between western specialist firms and indigenous ones is seen in terms of adherence to standardized procedures.

How have capabilities evolved or been developed within firms? There has been a process of capabilities in firms developing, with firms starting off with low value added, standardized, routine services such as data coding, developing their management capabilities and then increasing the range of services they supply as they move upstream. This is similar to the process that has occurred for Indian companies in their services provision (Athreye 2005). Examples of such upgrading where the company's capabilities are increasing and they are taking on more service provision in our sample are of the PG Logistics Group and Bearing Point. In addition in financial services outsourcing has progressed from initially dealing with routine data processing but over time involving more confidential and complex processes.

"HSBC has two Data Processing Centres in China. One is in Guangzhou, which is established in 1996 and provided simple data processing service at its early stage. Gradually, its business has expanded to credit card authorizing, central data support and customer hotline service and mainly focused on Asia Pacific market and part of EU and North American market. The other one is HSBC Data Processing (Shanghai), a wholly owned subsidiary of HSBC Group. It was established in Shanghai in March 2002 and provides operation support to banking and financial transactions taking place across the Asia Pacific countries and UK. The staff number is rapidly increasing to about 1200" Interview with anonymous former HSBC Data Processing (Shanghai) employee.

Another example of the division of service provision between in-house subsidiaries and outsourcers comes from Motorola. Small local providers are used for more routine coding work, whereas more sensitive and larger-scale software projects are kept in-house.

"In his division, they [Motorola] outsource software development to local outsourcers. During the cooperation, the Motorola is responsible for software design and testing while the outsourcers are only responsible for coding. The Motorola provides the outsourcers with software design documents. And the outsourcers develop software according to such documents. Since coding work is straight forward and the testing (testing software whether work properly or not) is done by Motorola itself, Motorola doesn't need to pay too much attention to quality control. Normally, they outsource small and middle scale software development to the third parties and keep the large scale software development in house. Normally they will choose local SMEs as their vendors. For one reason, compared with large companies, SMEs have competitive edge at cost. For the other reason, normally it will take longer time to do business with larger companies than SMEs." Interview with Mr Ji, Manager, Motorola, January 21 2006

A final feature that our interviews highlighted was the prevalence of working in teams with people from the service provider going to work on-site at the client's workplace. This is also a feature of the Indian offshoring market and has been thought to be related to the difficulties in transferring tacit, sticky knowledge with system dependence across long distances. The interesting difference in this Chinese context is that the geographical distances are not far in that both parties are usually subsidiaries based in China, and sometimes in the same city. However the need for having people from both firms working together at the client's site, to understand client needs better and what their routines are, is not in this case a function of geographical distance but of distance between firms in terms of their routines and operational culture and is testament to the tacitness and stickiness of this operational knowledge. This is the case for instance in the example cited between Kehao and Huawei above. It is also the case for Accenture employees working with MNC clients:

"These employees currently work on an outsourcing project. They provide IT service including application development for a MNC subsidiary in China, which is part of the contract signed between the MNC and Accenture globally. These people work in the MNC just as the MNC's employees. They have the MNC's employee badge, email account, extension number etc. They work under the client working policy and rarely return to Accenture, so as to their leader have to remind them they are Accenture's employees not the client's employees. According to the contract, they will work in the MNC for another few years."
Interview with Employees in Accenture, China

It appears that in these project teams, part of the function of the service provider is to train the client employees.

"In this project, the client's employees together with Accenture's employees compose project teams. Currently the ratio between client people and Accenture is around 1:3 but gradually the Accenture people will dominate the number. The purpose that these clients' employees join the project is to be familiar with the system they will use later in their daily work."
Interview with Employees in Accenture, China

Further examples of this kind of project team-working across the firms exist between BearingPoint and its clients and between Hewlett Packard and Schneider Electric:

"The BearingPoint may do like this: a consultant, a salesman and an engineer visit client to understand client's requirements...After the client making decision, BearingPoint will set up a project team or

send its people to work on client sites” Interview with Mr Huang, Global Development Center, BearingPoint China

An interesting feature of these working arrangements is that through internal IT monitoring systems (especially within the specialist global providers) the service provider firm is able to monitor its employees remotely whilst they are working onsite at the client’s workplace. This combines a lowering of monitoring costs, owing to sophistication in IT processes, which enables firms to retain control over their workers whilst they are not physically based within the firm, with a lowering of the costs of dealing with tacit knowledge that demands that people work, or train others to work, across firms on processes within the same workplace.

“HP field service engineers stay in Schneider and work under Schneider’s policy. Schneider has the right to adjust HP employees’ job responsibility but will inform HP’s project manager. HP’s project manager communicates with Schneider side manager periodically. Schneider IT people mainly responsible for management, purchasing, resource allocation etc while HP people mainly focus on technical job assignment. There are only 4-5 people in Schneider’s IT department in East China region and they are in charge of more than 10 factories or subsidiaries’ IT management with the region. And they have to rotate among these branches. Compared with the amount of people in Schneider IT department, 6-7 HP people serve Schneider Shanghai....Thanks to HP’s IT system, the performance of HP employee on client site can be monitored by the HP. The system will record every case an HP employee proceed and so can evaluate his/ her job assignments. Also an HP employee on client site has to log on to the system to report his/ her working time. Of course, the client manager will give his/ her comments on HP people’s performance to HP manager.”

The organizational boundaries of the two firms are not determined physically by employees of each firm remaining within the physical location of that firm. Instead, the span of control extends from the service provider into the partner (client) firm whilst enabling the tacitness or stickiness of knowledge transfer to be accommodated through physically working together at the same location.

2) Effect of institutions in China on organizational choice

The effect of institutions on organizational choice is manifested in various ways: 1) through the need to use state-owned companies in order to have access to government data; 2) to penetrate the regulatory environment by using local providers which arises from regulatory restrictions and government requirements for local provision; 3) relatively weak IPR leads to use of western specialist firms or captive service providers for processes involving confidential and proprietary data.

1) Use of state-owned companies as providers for their relations with government and access to personnel data

Various ways of dealing with institutional lack of transparency occur through linkages with government and state-owned companies as mediators through the bureaucracy. From the client perspective:

“The top reason they choose a local service provider is that FESCO as a state-owned company keeps good relationship with local government such as the Labor Bureau, the Social Insurance Bureau and the Personnel Bureau, enabling it to understand the local policy and trend...For example if a company wants to investigate its candidate’s background, a reliable information source is the personnel file archived in the Personnel Bureau. Due to the connection with the local government, it is relatively easy for FESCO to access such resource” Interview with Lilian Li, Schneider Electric HR Specialist, former GE Specialist Material HR specialist

Thus the use of FESCO for Human Resource services, especially for recruitment by GE and Schneider was done for the state-owned company’s knowledge of personnel data and access to them, and for its inside knowledge of the local labour markets and ability to screen in recruitment processes. This kind of inside knowledge would not be available to foreign providers, nor to private companies and illustrates the lack of transparency in these institutional procedures.

Similarly Microsoft did not hire people directly when it first entered the Chinese market. Instead it recruited people through a local company named Worksoft, which provided

people to work at one of Microsoft's China branches, and it operated through a joint venture with the Shanghai Government, Wicresoft.

“After delivering a qualified local project and a global project, Microsoft gave this branch headcounts and the former Worksoft employees were transferred to the Microsoft” Interview with Mr Chen Yuyang, MSN Technologies China, a division of Microsoft, April 7 2006

2) Nature of regulatory environment

Likewise in BPO procurement, institutional costs are significant and it is easier to use local indigenous and state-owned companies as providers, particularly where the clients are local government or are state-owned themselves. The nature of the regulatory environment and local knowledge of approval procedures appears to be important in this context and requires the use of local providers who are well-connected with state institutions.

“According to the Chinese regulation, any government procurement (eg public funded hospital purchasing medical equipment) over a threshold (depending on local government's regulation) and certain kinds of goods' importing must be processed via tendering. Only authorized companies can provide tendering service. ...The role played by the Oriental International can be described as follows...According to its client's requirements, Oriental Internatioanl prepares the tendering documents. During this process the staff of Oriental International work with its clients to ensure all the documents are not against laws and regulations...After this the Oriental International will submit the tendering documents to local government to get approval...If the tendering documents passed by the government, Oriental International will sell them to vendors so that they can compete for the bid. Then the Oriental International will arrange the whole bidding process. Good relationship with the local government is very important. This can explained in two fold. The first fold is that the loaal government is its client. The second fold is that the Oriental International can facilitate the approval procedure by keeping good relationship with the government and therefore better serve its clients.” Interview with Vivian Li, Project Specialist, Shanghai Oriental International Group

Another reason for using local providers is in part due to regulatory restrictions.

“Government regulation sometimes may bring business opportunities to China Telecom. An example is that a MNC outsourced its network service to four foreign companies AT&T, BT, Equant and SingTel. But none of these four outsourcers have operation license in China. Therefore part of service has to be outsourced to the local carrier China Telecom. This causes inefficiency in operation. Under this situation, the MNC wants a local carrier to handle all of its network service in China.” From proposal of China Telecom/ Guandong providing service to CSPC Hui Zhou.

3) Weak IPR leads to use of global specialists or keeping services in-house

However for some processes which involve confidential data, these companies will choose global specialists for their more stringent control of intellectual property.

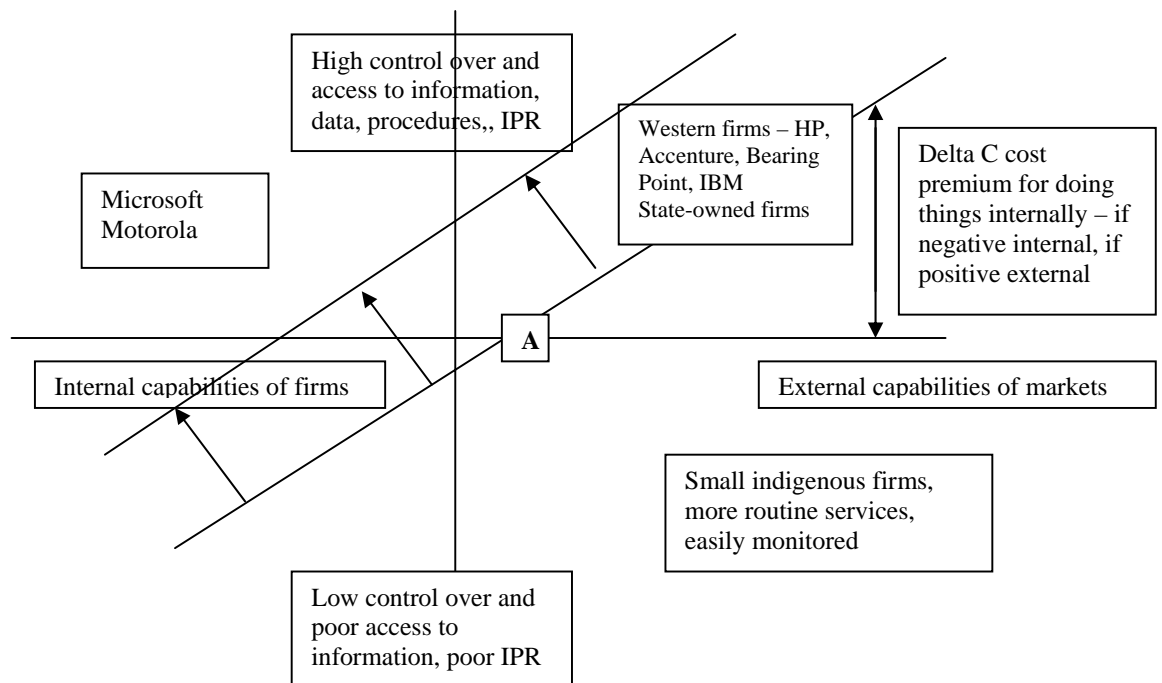
“For some key HR process such as payroll process, foreign companies are more likely to choose multinational specialist HR outsourcing companies than the local ones because of worrying [about] the confidential data leakage.” Interview with Lilian Li Schneider Electric

The use of captive subsidiaries for direct offshoring and outsourcing of services (Route 3) is another way of dealing with poor institutional structures, especially weak IPR.

“In the interviewee’s opinion, the critical reason for HSBC to keep their outsourcing [sic] in-house is worrying [about] the leakages of information which is highly sensitive.. A company’s policy well reflects the HSBC’s emphasis on data protection” Interview with an anonymous former HSBC Data Processing (Shanghai) employee.

3) Interrelationship between institutions, internal and external capabilities of firms and markets and organizational choices

Figure 2 Interaction between institutional effects and evolution of markets and capabilities



Adapted from Langlois 1992

Figure 2 outlines how we think the relationship works of the effect of institutions on the emergence of capabilities either creating new markets or within firms. Adapting Langlois 1992, there is a per-unit cost premium for doing activities internally within the firm. If that premium is negative, there is a cost advantage to internal organization and the firm will choose to keep those activities in-house; if the cost premium is positive, there is a disadvantage to the firm to keeping activities in-house and it will choose to outsource them and use the capabilities of markets. Those activities to the right of point **A** will be done through external markets whilst those to the left of point **A** will be undertaken within the firm. On the vertical axis we describe the effects of the institutional environment: 'good institutions' translates into better control over and more transparent access to information, data, procedures, IPR whereas poor institutions means weaker property rights, lack of transparency in procedures such as contracts, poor access to information. Different organizational choices are situated in the various quadrants. Firms such as Microsoft and Motorola preferred to retain processes in-house where there was less risk of leakage of confidential information. Western firms such as Hewlett Packard, Accenture or Bearing Point are in the top right-hand quadrant: they had a cost advantage for providing services over firms keeping them in-house. They also demonstrated superior control through their own internal procedures. State-owned firms such as FESCO are also in this quadrant with their advantage being their access to state-controlled information such as personnel data which outside (non-Chinese or private) firms would not be able to retrieve. Smaller indigenous firms would be placed in the lower right hand quadrant, with outsourcing to them driven by their specialization and cost advantage but confined to more routine types of activities which would be more easily monitored where leaky information or non-standard

procedures would be less damaging. Over time, as more firms specializing in these activities emerge and as control over IPR and access to information improves and diffuses, one would expect the line delineating the division between external and internal activities to move leftwards and upwards and more organizational choices of firms to fall within the top-right quadrant.

Section 5 Conclusions

Since the mid-1990s there has been a marked deverticalization of industrial structures with vertical specialization between different firms – an unmaking of the Chandlerian revolution (Langlois 2003). In particular with business services, this deverticalization has stripped out what Stigler called general specialties and Sako called corporate function unbundling – services which can be dealt with through capabilities in IT where previously they required person to person contact and were coordinated through departments within companies. These services include human resource management services such as recruitment, procurement services, accounting and finance services, logistics services as well as directly IT-related services to do with managing the IT infrastructure, networks and software within companies.

This paper has been linking together the Langlois (1992, 2003, 2004) framework of how markets and firms' capabilities coevolve alongside Coase's ideas (1992) of the institutional structure of production and how the institutional framework influences the organizational structures of production in the context of a case study of the emergence of offshored and outsourced markets for business services in China. Out of our interviews and case study

examples illustrating the process, over a period of 10 years from mid-1990s to 2005, these markets in offshored and outsourced services and the firm capabilities that go with it have emerged in specific organizational forms. We highlight some features of these organizational choices, how the markets and capabilities have evolved and how the institutional environment in specific ways has shaped those organizational choices.

The markets that emerged in these services have drawn on IT-based capabilities that in the initial phases have existed in data-processing and consultancy firms such as Hewlett Packard, IBM, Accenture and Bearing Point. The choice of global specialists such as Hewlett Packard or BearingPoint, which are present locally in China rather than local indigenous third party providers involves, is due to their greater efficiency and deeper firm capabilities especially in management procedures. The advantages that such firms have had over the newly emerging indigenous firms in China have been their adherence to standardized processes and their ability to undertake tasks higher up the value chain than the more routine standardized processes which formed the original impetus for the outsourcing of these services.

In interviews examples were given of choosing global specialists to deal with payroll issues, due to the dangers of data leakage and confidentiality, as western providers were thought to be safer. The greater capabilities of global specialists such as Accenture were mentioned and their ability to develop more customized services on top of the more standard HR systems. It is also possible that these western firms constitute an oasis of institutional norms of the western business environment, for instance over contract enforcement, and therefore lower institutional costs, in a desert of more idiosyncratic emerging market institutions.

Institutional costs are important in China and ways of dealing with them occur through linkages with the government and state-owned companies as mediators through the bureaucracy. Thus the use of FESCO for Human Resource services, especially for recruitment by GE was done for the state-owned company's knowledge of personnel data and access to them, and for its inside knowledge of the local labour markets and ability to screen in recruitment processes. This kind of inside knowledge would not be available as readily to foreign providers, nor to private companies and illustrates the lack of transparency in these institutional procedures. Likewise in BPO procurement, institutional costs are significant and it becomes easier to use local indigenous and state-owned companies as providers, particularly where the clients are local government or are state-owned themselves. The nature of the regulatory environment and local knowledge of approval procedures appears to be important in this context and requires the use of local providers who are well-connected with state institutions.

The use of captives ie in-house service provision appears to occur in the financial sector, see our example of HSBC, with concerns expressed in this sector about security and leakages of confidential and sensitive information. The weakness of firm-level intellectual property protection makes firms in this sector tend towards in-house provision of services especially where proprietary information is concerned. Control and monitoring procedures are thought to be more effective using in-house procedures than when outsourcing to a third party. This would appear to be the result of a mix of institutional costs, with weaker IPR in China than the west and firm-specific capabilities leading firms to keep service provision in-house.

We have also highlighted the interaction between the evolution of markets and capabilities with the effects of institutional costs on the organizational choices that have been made in this sector. Particular organizational choices – of state-owned firms such as FESCO for procurement or for HR purposes, or of western specialist services firms such as Bearing Point or Accenture – are driven by the combination and interaction of the particular superior capabilities of those firms alongside their function of compensating for particular institutional weaknesses or idiosyncracies in China. So the choice of the state-owned firm allows access to government-held data or plans for procurement not available to the outside firm; the choice of western specialist provider gives greater assurance over use of standardized procedures and security of proprietary information. As greater control over proprietary information and greater transparency of information diffuses to greater numbers of indigenous firms, and as the capabilities in indigenous firms are extended up the value chain, one will expect to see a thicker market developing in the provision of these services composed of greater numbers of Chinese providers, and in terms of our Figure 2, the upper right-hand quadrant will become more populated with firms where institutional norms approach more developed country norms allowing for the development of more externalized capabilities and therefore more outsourcing/offshoring to occur.

One may also see this study in the wider context of the offshoring of services in China compared with the Indian experience. This offshored/outsourced services sector provides a case study epitomising the different ways in which Chinese and Indian development is occurring. It is clear that the Indian offshoring services industry is more advanced than the Chinese sector, and is further down its life-cycle in terms of development. But it is also apparent that it has significant differences in terms of its orientation and evolution. The

Indian market is composed of a concentrated industry with large and diversified companies dominating the market, fostering domestic entrepreneurs and developing management expertise which creates their competitive advantage. They are export oriented and have developed methods of managing transactions at a distance; there is considerable expertise in managing these geographical costs (Dossani 2006, Qu and Brocklehurst 2003).

In the Chinese market, geographical distance has not been such a big feature as most outsourcing is occurring mediated through client subsidiaries in China and through global service providers with subsidiaries in China. This chimes in with one of the main contrasts that Huang and Khanna (2003) bring out: between China's economic development spearheaded by foreign capital in the form of FDI and a large and wealthy diaspora which is warmly welcomed by the Chinese state for its money and expertise. They contrast this with Indian development, epitomised by the offshoring sector, which has been based on domestic entrepreneurship rather than FDI and has not been welcoming of its diaspora which in turn has not remitted capital to India. Instead the Indian state has promoted the organic development of factor markets to a greater extent and has progressed further in developing western-style institutions in the form of a more transparent legal system, greater democracy, fewer legal and regulatory constraints on indigenous private firms, with a symbiotic relationship between these regional developments in particular states and the fostering of the software and offshoring sector that has flourished in those places.

By contrast in China institutional structures have remained significantly non-western and opaque and the form that the industry in China has taken – with clients and providers operating through FDI subsidiaries, following on from fairly lengthy association and

embeddedness within the Chinese economy – and operating through state-owned companies for particular kinds of services requiring institutional connectedness, reflects the continuing importance of institutional costs that need to be worked around.

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Table 1

Interviewee	Organisation	Place Where Interviewee Is	Interview Date
Lilian Li	Schneider Electric	Shanghai	Dec.4th,2005
Anonymous Ex-employee	HSBC Data Processing	Shanghai	Dec.4th,2005
Vivan Li	Shanghai Oriental International Group	Shanghai	Dec.12th,2005
Huang Rong	Bearing Point	Shanghai	Dec.17th,2005
Wei Tao	Hewlett-Packard	Shanghai	Dec.20th,2005
Vivien Wu	Bearing Point	Shanghai	Dec.27th,2005
Anonymous Employees	Accenture	Shanghai	Jan.15th,2006
Kaijun Ji	Motorola	Shanghai	Jan.21st,2006
Fu Long	Bearing Point	Dalian	Jan.27th,2006
Mr.Yu	Kehao Info	Shenzhen	Feb.20th,2006
Ms.Yin	Su Teng Technology	Shanghai	Feb.27th,2006
Chen Yuyang	Microsoft	Shanghai	Apr.7th,2006

Table 2 Case studies**IT outsourcing case studies:**

Procter and Gamble to Hewlett Packard, 2003 outsourcing of IT infrastructure

Dupont to CSC, 2003 outsourcing of call centre, desktop and server management

China Netcom CNC to Huapu InfoTech, contract for help desk and call centre

BPO Vendor case studies

China Data Group

PG Logistics Group

Neusoft Park Industrial Development

Capgemini to Dairy Farm