How dynamic capabilities drive performance in the Indian IT industry: The role of information and co-ordination

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This is the final version of the paper accepted by the journal Please cite this paper as Holzweber, M., Mattsson, J., Chadee, D., & Raman, R. (2012). How dynamic capabilities drive performance in the Indian IT industry: The role of information and co-ordination. [Article]. *Service Industries Journal*, 32(4), 531-550, doi:10.1080/02642069.2011.596530.

Published paper available at: 10.1080/02642069.2011.596530

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This study examines key issues and effects of capability management on a fast-growing area of knowledge-intensive global business services – IT outsourcing and offshoring. An exploratory study of Indian companies providing complex process-oriented offshore IT services to their global customers is undertaken. The analysis of the data related to the service provider side shows that developing dynamic capabilities is strongly driven by management and top-clients and results in the development of business processes and in establishing a strategic partnership with the client organization. Key findings are that information exchange and coordination are the key to a leveraging firm performance.

Keywords: dynamic capabilities, strategy, management, offshoring, services, performance;

Introduction

The rise of the IT-service industry is characterized by great exuberance and a belief in the seemingly unlimited potential of the Internet. Over the years the profitability and economic viability of companies and business models have changed tremendously.

The fundamental driver of the Internet boom and the IT services industry is the belief that it would be possible to increase value creation, because the internet would lower costs while increasing customer value at the same time. The IT services industry includes mass-produced software, custom programming, custom computer systems design, offshoring and outsourcing of business processes. However, the primary reason for growth in these areas has been seen in changes in business processes mainly in the western economies. Offshoring occurs when jobs and production are relocated to a foreign country. It can be contrasted with outsourcing, which occurs when firm contracts with another firm to perform part of their work, but does not necessarily entail a shift to a foreign country.

In the past decade delivering performance through continuous development of supplier-client capabilities has been combined with highly complex service process issues. Technology costs have declined, technical knowledge and literacy have

expanded, and the availability of technology has increased. In addition, this shift has emerged in inter-organizational systems, where socio-political and socio-cultural factors have gained much influence and effect. In Europe and the USA IT-based services account for an increasing share of the gross domestic services of these economies. More than ever in recent years, the IT and ITO/BPO industries have seen substantial offshoring particularly from firms in advanced industrialized countries to service providers in developing countries (Metters 2008; Bhalla et al. 2008; Edgell 2003; Blinder 2006; Kotabe 1990). To our understanding the global market for services offshoring consists of two main sets of players (Chadee and Raman 2007): IT spenders (demand side) and IT service providers (supply side). On the demand side, the USA (37%), Western Europe (35%), and Japan (14%) are the main IT spenders (EITO 2006). Other major demand side players include Canada, and selected countries from Latin America, Eastern Europe and the Asia Pacific Region. On the supply side India, China, Malaysia and the Philippines are the main players. Other IT-services offshoring destinations include Israel, Ireland and Russia.

When building the IT business in India the Indian government has been supporting heavily the IT business and its infrastructure (Chadee and Raman 2007; Khanna 2007). This resulted in strong fundamentals for the Indian IT industries when developing its software industry. Most Indian IT-multinationals such as *Infosys*, *Tata Consultancy Services*, *Wipro* and others are ready to recruit foreign software engineers, because local resources are limited due to educational issues. Therefore, some Indian multinationals are beginning to cooperate with their competitors symbiotically (Oshri et al. 2009). They are driven by self-interest, simply to continue growth and enlarge their market shares. Indian multinationals are focussing on IT

outsourcing decisions, outsourcing outcomes, and on the dynamic interactions between outsourcing and firm capabilities.

The great advantage of buying from independent suppliers is that the buyer can maintain its flexibility, switching orders between suppliers as circumstances dictate. It helps drive down the firm's cost structure. On the other side this new path forward requires new management styles, new approaches to better understanding clients, and new and flexible structures for business. In a market where economic, cultural, social, virtual and physical systems are all interconnected, Indian ITO firms must be aware of the complexity they will face in their business relations (Jarvenpaa and Mao 2008). With the Internet, new channels and globalising clients, firms have to rethink approaches to better understand, interact with and serve their customers and business partners. Indian ITO firms to better understand client's needs use reinventing customer relationships. Indian top-20 multinationals re-fashion their firms, making them faster, more flexible and capable of using complexity to their advantage. To better understand creative performance delivery, we looked more closely at dynamic capabilities at those firms who selected creativity as a driver for management performance.

Teece et al. (1997) argued that fast changing markets require the ability to reconfigure the firm's asset structure to accomplish the necessary internal and external transformation. The authors stated that three dynamic capabilities are necessary to meet new challenges. Firms and their business units need the capability to learn fast and to build strategic assets. Assets such as capability, state of the art technology and client information have to be integrated within the firm and transformed or reconfigured. The concept of dynamic capabilities arose from a shortcoming of the resource-based view of the firm. The resource-based view (RBV)

has been criticized for ignoring factors surrounding resources (Priem and Butler 2001; Teece et al. 1997). Considerations such as how resources are developed, how they are integrated within the firm and how they are released have been under-explored in the literature. Dynamic capabilities attempt to bridge these gaps by adopting a process approach (Teece 2010; Barreto 2010). They act as a buffer between firm resources and the fast changing business environment. Dynamic resources help an organization to adjust its resource-mix. The RBV emphasizes on resource choice. In contrast, dynamic capabilities emphasize resource development and renewal and sustain a firms' competitive advantage.

Having set the focus of this study, our research objective is summarized by the following research question: *Which dynamic capabilities are most important for ITO/BPO suppliers in emerging markets when delivering performance in supplier-client linkages?*

In the next section (1), we will provide an overview of the rise of the Indian IT service industry and in the section (2) we present the theoretical foundation underlying our research question. A framework by Lacity et al. (2010) will serve as a basis for analysing the dynamic capabilities of supplier-client linkages in projects that are off-shored to Indian vendors. From our theoretical and empirical reflections, we will attempt to derive a refined theoretical understanding of the composition of the supplier-client linkage when delivering performance through continuous transformation. In the third section, we introduce the methods used in our study. In section (4), our findings are described with illustrative quotations. Finally, in section (5), the findings are compared to the existing literature and leads to conclusions and management implications.

The rise of Indian IT industry in the global IT services business

All in all the IT managed services market in India has grown more than 22 per cent in 2010, and it is expected to grow by more than 26 per cent in 2013 (Deblina 2010; IDFC 2010; Shukla 2010). Thus, this raises several questions about the rapid emergence and growth of global firms from a developing country competing successfully with firms from advanced industrialized countries. India has gained many IT-service sector jobs through offshoring in the past. Much of this is due to India's focus on becoming better known worldwide for their information technology capabilities. India has been the leading offshore destination over the last 20 years. The IT offshoring sector grew rapidly in the last 10 years as a result of the developments and wide diffusion of affordable advanced information and communication technologies. Today, India accounts for almost two-thirds of the global industry in offshore IT and about half of the global BPO industry (NASSCOM-McKinsey-Report 2005; NASCOM 2009; UNCTAD 2009). Indian IT-BPO grew by 12 per cent in 2009 to reach USD 71.7 billion in aggregate revenue. Software and services exports (includes exports of IT services, BPO, Engineering Services and R&D and Software products) reached USD 47 billion.

India's rapid growth in the ITO/BPO domain has been possible because of the availability of a robust infrastructure in telecom, power and logistics especially in regions where the IT industry is located, and a growth in specialist knowledge and skills being made available to firms. Relevant telecom facilities are an important prerequisite for the success of the IT industry, and the Indian government has taken steps to guarantee that telecom remains a main area of concern. Dependable and uninterrupted power, a most important requirement for running IT-software and services businesses, has been receiving substantial governmental attention. Recent customization steps in distributing power and energy bring in greater efficiencies, and

better customer focus in the market helps to strengthen the IT/BPO industries' strategic advantage. Furthermore, rapid growth in "technology parks" geared to satisfy all of the requirements of knowledge intensive industries, supports India's innovative movement towards being a leading destination for the IT industry (Dossani and Kenney 2009; NASCOM 2009; Datamonitor 2010). Leading competitive IT business parks in *Chennai*, which is one of the largest exporter of software, information technology and information-technology-enabled services, *Bangalore*, which is known as the *Silicon Valley of India*, because of its position as the nation's leading IT exporter, and *Gurgaon*, which is an industrial and financial centre, are the most highly competitive and innovative IT development areas offering the kind of infrastructure found in Silicon Valley (USA). Commonly, India is ranked by the OECD as a developing country, but seen from an IT perspective it is an emerging market.

IT service multinationals: Using dynamic capabilities for client linkages

In the service management, studies have been undertaken to investigate key operations issues including service design, capabilities management, strategy formulation and flexibility in service operations (Sullivan 1982; Harvey 1990; Haynes and Thies 1991; Voss et al. 2005; Oke 2007). A challenge of IT-service providers is to provide high-quality services to businesses that often have strong purchasing power. An important issue is how the IT-service is managed and in particular how it is designed and operated to involve clients to collaborate in delivering performance. Collaboration can include partnering with other suppliers, clients, competitors and organizations that offer similar services in similar markets. Collaboration can also be used for bundling packages of services, marketing or technology-based objectives. These arrangements can take many forms, from informal alliances to structured joint

ventures or know-how and technology exchange agreements. The evaluation of potential partners may include assessing how collaboration with partners or clients is likely to impact the firm's performance - it's internal strengths and potential for sustainable competitive advantage. Assessing the collaboration's impact on the firm's performance is driven by the fit of the collaboration or linkage to clients, but also by the Indian philosophy of 'jugaad', which means that such changes should be compatible with the firm's overall strategic direction (Prahalad and Mashelkar 2010).

At one end of the IT-service spectrum, the service can be classified as a commodity. At the other end, in specialist business services such as data processing, web page design, database design, or software programming, the service component is very high. A high level of process variety and capabilities, and low volume per unit characterizes the latter type of customized services. They are also typically services in which clients are co-producers and in which a firm and its clients collaborate and drive IT projects together (Nambisan 2002). Einhoff and Rey (2011) reported that special factors are needed to manage the transition successfully when harmonizing business processes and client offerings across different key accounts. Besides a strong management the agreement of all involved parties on the overall vision as well as their determination to make the changes succeed is needed (Jensen and Petersen 2011). Effective communication between partners is critical to ensure the expected benefits on both sides (Cannon and Perreault 1999). Firms may express basic satisfaction with their IT services, but top-level IT managers as business units leaders are demanding more value from the IT function. Lacity et al. (2010) identified several gaps in ITO knowledge: One gap is the need for more research on supplier-client relationships especially on the dynamic effects of outsourcing and offshoring and client and supplier firm capabilities.

General considerations regarding capability orchestration

Many firms recognize all the advantages of buying software applications off the shelf from Indian software-houses. For large firms in competitive and fast-moving industries this approach can run into hundreds of million of dollars. What is the Indian secret? Indian pioneers are forming IT-groups to manage business functionality services, organizing them in close relation to clients' business processes. The developers become the key success factor when delivering IT services. Jensen and Petersen (2011: p.16) stated that hiring external internationally oriented staff as board members and managers targets the *dynamic perspective* in the sourcing process, if the HR demand cannot satisfied with internal candidates by highlighting the '*valuable ingredient of managers' global sourcing implementation capability...[is a] important role of management in fostering strategic global sourcing.*' Their analytical framework is based on the assumption that firms are pulled in the direction of strategic global sourcing when they focus on high value service activities in their business segment. Here we see a strong linkage to dynamic capabilities in the sourcing process, driven by supplier management capacity, cultural distance management capability, contract negotiation capability, absorptive capacity and IT technical-methodological capability (Lacity et al. 2010).

We employ in our study a typology of services where we focus on offshore IT-services provided by Indian IT firms. Our interest centres on the linkage of top-level management and their clients when delivering performance in collaborative work within IT-services. Figure (1) captures and organizes the linkages between dynamic capabilities and ITO outcomes when delivering service performance. Inspired by the idea of Lacity et al. (2010) and Ordanini and Pasini (2008) we have formed our framework as follows.

Figure 1: Framework for supplier-client linkage in the IT offshore outsourcing business

As can be seen above, careful attention is given to the framework and the management of capabilities is required. Here the term 'capabilities' needs to be further elaborated. In general, the term 'capability', whether operational or dynamic, is the ability to perform a specific activity (Helfat 2007; Teece 2010). Johnson et al. (2008) define capabilities as the resources and competencies of an organization needed for it to survive and prosper. They divide strategic capabilities into threshold capabilities and capabilities for competitive advantage. Threshold capabilities include threshold resources and threshold competencies, whereas capabilities for competitive advantage include unique resources and core competencies.

Grant (1991) characterizes resources as inputs to a production process, but only some resources are inputs to a productive process. The author concluded that resources have to be coordinated in order to be effectively productive. Grant focuses on capabilities as the source of any sustainable competitive advantage a company achieves in its market. Successful companies coordinate resources into capabilities to perform tasks or activities (Cant and Machado 2008). Collis (1994) notes that

organizational capability is an outcome of knowledge and resource integration within and across firms.

Hence, capabilities are the ultimate resources for sustainable competitive advantage and firm performance. We follow the definitions on resources, competences, and capabilities made by Teece (2010: p.3): '*Capabilities are the firm's capacities to integrate, build, and reconfigure internal and external resources/competences to address and shape rapidly changing business environments.*' Suitably to Lacity et al. (2010) we argue that in the IT industry there are at least two important capabilities related to strategic thinking and management within service firms and in supplier-client relationships: *information exchange* and *inter-firm coordination*. We define a capability as a distinctive set of human skills, attitudes, behaviours, motivations, and orientations that can transform resources into business skills. Therefore, collections of capabilities create high-level strategic competencies that positively influence business performance. The RBV, which highlights the importance of such capabilities, argues that firm performance depends on the organization's ability to acquire, deploy and maintain a set of assets or resources (Cullen et al. 2005). We utilise the concept 'core IS capabilities', which was introduced by Feeny and Willcocks (1998), to refer to the human, rather than the IT, assets characterizing the management and staffing of a high performance IT related function. We consider that the skills supporting a capability are a mix of interpersonal, technical and business skills. Focusing on the IT function, distinctive core IS capabilities are needed to manage, change, and innovate strategically the demand side of information and communication technologies.

Dynamic capabilities and organizational processes

Reverting to our definitions of our two key capabilities, information exchange and coordination, the former is the sharing of knowledge with business partners to serve

customers. This would include changes in the business environment, such as market and customer preferences. The multiple dimensions of information exchange are accuracy, completeness, credibility of information, and timeliness (Mohr and Sohi 1995). Interfirm coordination refers to transaction-related activities between partner firms. This includes the collection of product and service related information, the identification and articulation of customer needs, the search of new customers or buyers, coordination across business partners and internal business units (Clemons and Rows 1992; Ordanini and Pasini 2008). In our study, most responding organizations have acquired smaller firms, supplying business partners or competitors or still being in the process of buying competitors or businesses, which some of them have been their clients for many years.

The most commonly used theoretical foundation for the perception of dynamic capabilities is the resource based view (Wernerfelt 1984, 1995; Barney 1991) and the modifications and extension made by Teece et al. (1997), Helfat (2003; 2007), and Teece (2010). A widely used definition of the term *dynamic capability* is given by Teece et al. (1997, p.516): '*...the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments.*'

Offshore outsourcing firms could benefit their firm performance by buying cheaper inputs from Indian ITO companies. In emerging countries like India offshore outsourcing firms pay lower wages but benefit from state-of-the-art technologies and from larger scale economies. Clients benefit from more flexibility, since they are less committed to a specific technology. ITO clients access the resources and knowledge of Indian service suppliers. This enables the client to complement its own resources and opens up for new knowledge. We argue that ITO suppliers need specific dynamic capabilities such as managerial capabilities. Adner and Helfat (2003, p.1020) used the

term 'dynamic managerial capabilities' to refer to the capacity of managers to create or modify the resource base of the organization: *'Dynamic managerial capabilities are the capabilities with which managers build, integrate, and reconfigure organizational resources and competences.'*

From dynamic capabilities to strategy process

Indian ITOs provide their clients with indirect advantages by cost reduction, increased flexibility, complementary resources, latest market knowledge, and customized process re-engineering services. Evidence for a beneficial impact on clients' firm performance is provided by several studies (Bertrand 2010; Bhalla et al. 2008; Lewin & Peeters 2006). Roza (2011, p.96) showed in her study *'...that absorptive capacity positively moderates the relationship between the outsource offshoring and firm growth.'* Zhara and Hayton (2008) showed in their study on performance effects of international strategies a moderating impact of absorptive capacity on a firm's profitability and revenue growth. Here, we follow Helfat's idea (2007) when arguing that the benefits a firm obtains from their dynamic capabilities depend on the context in which the capabilities are employed. This focuses on the issue how well dynamic capabilities fit with the internal and external environment of the firm.

Data and methods

The empirical data used in this study was collected via semi-structured interviews (Yin 2009), in which business managers in the Indian IT industry were questioned about their work on the strategic, as well as the operational level. The interview guide included questions covering such issues as: management, strategic management, human resources perspectives, and leadership. The material was collected in the year 2007 in India among 20 leading ITO companies (a short firm description is included in appendix 1), with 11 respondents completing the interviews, ranging between one

and two hours. The representatives are from leading companies in the IT industry.

Detailed questions in the interviews concerned numerous issues like: competitiveness in the IT industry, facilitators for business growth, collaboration and communication with business competitors, human resource management and recruitment of staff, service quality and drivers of business success, value creation and maximization of benefits, general management and innovation management, relationship and partnership management, and how IT managers see their future. When analysing the interview transcriptions, we especially looked for the expressed interest of each manager in innovation and strategy. Excerpts in the transcribed material were marked with assigned colours, facilitating data categorization according to corresponding themes – resources, capabilities and performance.

We selected data from companies that were likely to have had some experience in using innovative IT technology. Information about these companies included their early years when companies started their business, but we also focused on their recent development in business strategy and management. Ideally, informants needed to have some knowledge of IS innovation, strategic management, and some degree of system and activity integration with their business partner on a global scale. Therefore, qualified respondents in our sample are managers, IS managers, or leadership/innovation managers. Table (1) characterizes the companies (*) included in the study:

Company	Founded	Total Revenue	Total Assets	USD Millions 2009 / 2010			
				Business Focus (% revenue from)			
				US	Europe	India	ROW
TCS	1968	6300	6069	53	27	09	11
WIPRO	1945	5880	7309	44	21	23	12
INFOSYS	1981	4804	6148	66	23	01	10
HCL Tech	1976	2324	2605	59	27	01	13
MPHASIS	2000	945	512	67	-	7	26
PATNI	1978	656	901	79	13	01	07
IFLEX	1992	618	926	27	33	-	40
L&T Infotech	1997	424	333	65	17	-	18
IGATE	1986	226	228	79	13	8	-

NIIT Tech	2002	202	176	33	43	11	13
EXL	1999	191	250	64	34	-	02

Table 1: A brief rundown of interviewed companies

(*) Notes:

1. The data is sourced from the respective company websites and their annual reports
2. iFlex has changed its name to Oracle Financials Services Software Limited
3. Exchange rate as on 31.03.2010 1\$ = 45.14 assessed from IMF web-link
http://www.imf.org/external/np/fin/data/rms_mth.aspx?SelectDate=2010-03-31&reportType=REP

We used content analysis to code text from interviews. Content analysis is the process of organizing written, audio, or visual information into categories and themes related to the central questions of the study according to a set of rigorous rules (Weber 1990). In order to understand what drives performance, we classified interview responses into two categories: capabilities and performance. The coding of the data was based on the question: *What is the context to which each data is linked?* In this way we linked strategic management theory and the theory of firm pertaining to capabilities. The data was analysed by first mapping all the answers according to the themes in our interview template. Some relevant themes for this study were capabilities (including capabilities management), strategy (including strategic management), and performance and future growth. These themes link strongly to the dynamic capabilities approach, which sees a combination of resources and competences as impacting on firm performance in the future. In the data analysis we have used the qualitative data analysis software *Atlas.ti* to systematically analyse the data from the interviews. The results are presented in such a way that the individual participating firms cannot be identified (e.g. P1 indicates the responding person in interview 1). This is due to the fact that all interviews were confidential in nature.

Results

Following the discussion of literature about dynamic capabilities, we started by addressing the question 'Which capabilities are most important for ITO/BPO suppliers in emerging markets when delivering performance in supplier-client linkages?' Our research evidence shows differences in the ability of supplier firms to benefit from

relationships with their client organizations and we argue that these differences relate to supplier firm 'relationship characteristics'.

Findings related to dynamic capabilities in supplier-client linkages

Indian multinational companies find it hard to develop a joint strategy, including competitors, other suppliers and their leading key clients. Many of these large corporations have customized their business models to the local context, which makes it tough for them to generate synergies from their relationships to multiple countries. Indian ITOs depend on local suppliers more than any other ITO companies since they operate since almost 40 years in India. Thus, the Indian suppliers and their clients use different business models and generate less synergy.

As mentioned above dynamic capabilities translate into an organization's ability to renew and recreate it to meet the needs of changing environments. Indian managers are developing capabilities to strengthen their basis for long-term success. They are sensing capabilities to understand their own organization's strategic position but also their customers' strategic position. Managers grab opportunities to make strategic choices and they re-configure their settings to enact strategies.

From an external perspective, the Indian government has played a critical role in enabling the success of IT service enterprises when creating and designing the suitable environment for business ventures many decades ago. As the manager (P5) said: '*...the Government has played an accelerating... catalytic role in enabling the industry to grow.*'

From a service-suppliers' perspective our results for dynamic capabilities, given in Figure (2), show that in ITO supplier-client relationships *information coordination* and *information exchange* driving performance directly. Based on supplier-capabilities and client-capabilities our framework displays how a service

delivery process impacts on performance. The dynamic capabilities combine for performance with IT resources and competences of the service-client co-production.

Figure 2: Framework for supplier-client linkage in the IT offshore outsourcing business – results on dynamic capabilities

One of the reasons that the supplier-client linkage has become popular is that many firms think that they have come to the end of the path of growth through the market. Indian managers think that future growth will have to come from new avenues. Respondents see alliances as an important strategy for growth (P3, P4, P6, and P8). We found that 6 out of 11 firms indicated that they were collaborating on a small percentage of their projects with direct competitors. All respondents stated that they have made plans for the future to extend and force their collaboration with their direct competitors and customers as well. Indian IT-managers also cooperate with other organizations and institutions like Nasscom. Respondents said that Nasscom is helping building a bridge between the industry, government and the external business world. When asked ‘what motivates a firm to collaborate’, the most frequent answer

was that collaboration allows the sharing of costs and risks involved in IT-service projects. Some (P1, P3 and P5) signalled that the higher the risk, the greater the openness towards collaboration. Collaboration is not only a plan for the future, but it is already happening at the regional and international level. Many collaborative activities are set at market research activities in which research companies and universities are valuable partners.

IT and IS technical capability

Thus, capabilities have foundations in less formal and behavioural aspects of organizations, such as decision-making, relationships and entrepreneurial skills (see figure 2). One manager (P1) stated that email-technology itself might not be enough sustain the firm's business and labour arbitrage is just a starting point to create and build capabilities. According to him, '*... we need to build up capabilities if to grow up the value chain... and also to expand business, maximize benefits and delivery value to existing clients*'. He continued that his company first recognized a need to change and in a second step the firm's management board agreed on administrative innovation by adopting new structures and processes. The same manager summarized the firm's initiation process to innovate strategic thinking. He explained how the firm quickly adopted new capabilities: '*...we acquired the capabilities and the expertise of managing complex business processes ... by hiring new employees who were able to bring all the required skills and knowledge into the firm.*'

Domain understanding

When gathering information about internal or external capabilities, the management learn about competing sets of change-options and their features. The individual manager will come to know only a subset of options to change, the *awareness or recognition set*. Some options for change, the *consideration set* will meet initial

changing criteria. The final choice is made from this set. Indian ITO-firms and their managers identify the hierarchy of attributes that guide their decision making in order to understand different competitive forces and how these different sets get formed. The first step in their change and innovation process is to be aware of change options and recognize a user's need to change. The actual change process will be executed close to the customer. Many change processes are initiated by Indian ITO-firms, but developed in close collaboration with their clients. In a second step management relies on their coordination capability.

One manager (P2) illustrates that internal coordination is extremely important to build and enhance employees' capability to provide the right environment to be innovative. He explained that *'...shifting attitudes towards workspace issues ...provides employees with this kind of unique environment to come together... our employees can drive idea generation themselves ...ideas are taken into the system... and employees are rewarded. 360 degree feedback happens everywhere ...feedback is transparent ...right up to the president of our company ...his 360 degree feedback is visible to everybody.'*

Absorptive capacity

Encouraged by the *open innovation movement*, Indian firms are going outside the company to gather sources of new ideas when satisfying their customers worldwide. In their user-driven approach they include customers, employees, scientists, engineers, channel members, management, and sometimes-even competitors (P1, 4, 8, 9 and 11). By including users in processes their service brings a new solution to customers' problems by offering more customer-perceived value than the usual solution would do when excluding users. Indian managers stimulate their staff to keep up their open innovation movement by recognizing and thanking staff for service excellence. They reward employees in different ways, some are motivated and satisfied by knowing that they are doing a good job, some are sent abroad and work

on projects, which are located close to leading customers, some receive monetary incentives, and others are awarded by being selected as the employee of the month or of the year. As observed staff performance is a function of ability and motivation. Indian managers use reward systems as the key to motivation.

Contract negotiation capability

As the open change movement implies, the interviewed manager (P4) points out one of the effects for involved users when negotiating a contract: ‘...*labour arbitrage* [is at the moment important and leads our business in the way] ...*whenever...we...sell our services, the first thing we tell customer is a cost reduction of 30-40%, that itself is very attractive for customer...* [however] *we as an organisation do not feel that labour arbitrage will last for long because ... salary levels [will raise] ...is no labour arbitrage anymore.*’

We found that capabilities in Indian ITO-firms are the ability to integrate, build, and reconfigure internal and external competencies to address changing environments. Capabilities combine and orchestrate talented people inside and outside the organization with resources and tangible assets, such as network infrastructure, IT systems, equipment, inventory and other facilities. This is required to perform highly competitive processes.

Findings related to Performance

Indian managers focus on performance targets, such as service quality, revenues, profits, value, loyalty and improved relationships to their customers. In their eyes performance is multidimensional. Accordingly, respondents were asked how they see their firm’s future in the IT services sector and their answers included admiration towards the dominant position of a couple of big IT services players, but also their constant and increasingly hard competition from smaller companies, which operate only at a local and regional level. An interviewed manager (P2) explains that his company will keep bidding against ‘...*IBM and Accenture* ...[but] *they are trying to slash*

down costs whereas we are in an equilibrium state of going up... it is absolutely necessary to ensure that we stay connected to business... we have to be realistic of what we can do and what we cannot do... we compete with IBM but we also collaborate with IBM.' Other managers (P8, 10) point at their intranet solutions for staff to share best cases, information and knowledge from businesses in different geographical locations to assist and support staff when dealing with their customers.

Information exchange

Indian managers indicated the importance of networks, because the network concept supports new approaches to business, helping firms become more agile, more responsive to customer needs, and making better use of information and knowledge. The dynamic synthesis of networks, supported by knowledge repositories, databases, and decision-support tools put hierarchical crutches away. However, Indian managers acknowledge the appearance of positive network effects. Smart aggregation, re-combination, and hyper-distribution make their network and its user services better than the simple sum of its parts. Networks encourage staff to work less formally and relationships rely more on collaboration and cooperation. The key element is seen in trust to push performance (P3, 4, 9). Two thirds of our respondents said that one key ingredient for successful collaboration in IT-service innovation is trust. A climate of trust or in other words a comfort zone is created through competence, communities and networks. In the notion of the client-demanded movement trust includes commitment and compensation of both, the organisation and the client as a customer. Client-driven innovation in Indian ITO firms refers to the process of collecting a particular type of information or knowledge about the client that is at the same time an ITO firm's customer. Change management deals here with the insights of the

observable and with the more latent level, which are difficult to grasp. Therefore, a client-driven change approach requires an interdisciplinary approach.

Meanwhile, the communication strategy in the interviewed ITO companies is widely open and direct. It is focused on thinking in various directions and engages every employee within the firm. A manager (P2) explained that *'...feedback on [the single employee] ... will actually be visible on the intranet for anybody in the company to take a look at... and there are direct communication systems, processes for direct communication with senior employees within the company including the CEO and the president ... as a company ...we support employee engagement initiatives.'*

New services and cultural distance management capability

Most organisations need to be more agile to serve their clients better. Therefore, firms need to be better informed about competition. A manager (P4) highlights the significance of relative competition: *'I think all companies are flexible and adaptive...but...small companies are more flexible because of the size, the decision making process, and the management contribution on a day to day basis.'* A manager (P2) explained that *'...labour arbitrage is not sustainable so we have to ...deliver value to customers... These initiatives started in top line and that is significant ...now these initiatives and models are starting to make our customers more competitive in the marketplace.'* This marketplace is now global. According to manager (P3) his firm serves customers *'...on a global perspective in more than 120 countries ... we are not really saying that we are US or Europe focused.'* Technologies and software products exist to meet these global strategic and operational needs connected to learning and knowledge sharing.

However, one Indian manager said that the real challenge is the transition from one culture to another, the use of one set of technologies and processes to another to reach superior performance (P3, 5, 8). Indian managers fine-tune the network's goals by identifying the best balance of human resources, business processes and IT

technology. Their cross-functional teams require different skills and attitudes.

Cultural management desires for idea generators, client's insights, value propositions and employees who orchestrate activities of the network to build up strong multicultural relationships.

Translation into value

Another question focused on the future growth and on the issues that could help to ensure firm performance. The interviewed manager (P2) answered that *'...Asia Pacific and the Asian market are going to be significant for us moving forward and the European markets will significantly increase... [whereas]...the US market will increase on dollar value.'*

When analysing performance it is important to make a distinction between new business and ongoing business as a manager (P5) explained: *'...98% of our business is repeat business.'* The same managers said that the performance of service delivery is critical for success *'...to deliver on what you have promised your client ... how do I justify that from our benchmarks ... about 60% of the products get delivered on time by our global competitors, as we do 92 to 94% on time.'*

When managers were asked whether they had any advice for other managers to invest and improve performance, one (P1) answered that it would be beneficial to be more *'...proactive in building capabilities in [core business] areas... I think it is important to continue to invest in infrastructure.'* Some managers (P2, 5, 8, and 11) said that making themselves questions like *'Am I really doing the job, am I really driving value, moving the company forward?'* will strengthen strategic thinking to innovate the firm's business model to better meet clients' expectations. In the managers' eyes a business model consists of four elements, which taken together create and deliver value: Customer value proposition, key resources and processes, and the profit formula. In their understanding people, technology, information and partnership alliances make it up for success (P2, 4, 7). Elements from the Indian business environment, like

offshore software development, high-speed satellite and fibre optic links, an open Indian economy, enables the creation of such linkages dedicated to software and related IT-services support their success.

To recapitulate

Indian managers compete on resources but also use competences and build up capabilities to sustain their business model. How? Indian IT-managers follow their 'jugaad' driven approach to undertake changes (Prahalad and Mashelkar 2010). Their challenge is to attract several ideas from a variety of domains and screening them. Next, they enable changes by using their capabilities to test and screen solutions at low cost. Cloudsourcing and information platforms allow them to contribute easily, flexible and fast. Small problems are solved with simple design tools. Large problems get broken down into smaller parts that can be worked on in the same way.

In our analysis we have found five issues that illustrate this specific and unique way to sustain business: First, they do this by enhancing their competitive co-creation of IT based services. Second, they focus on activities that drive value for their customers. Third, they take a global operational business approach when addressing new customers. Fourth, nevertheless, they presently focus on the Pacific and Asian market to increase future growth. Finally, their focus is clearly on transforming new customers to become loyal customer to further increase performance. All these elements indicate that one of the most significant drivers for performance has been dynamic capabilities, especially the more intensive *information exchange* and the increased *coordination* and commitment between their firm and clients. Both issues have led to a stronger business performance in the interviewed organizations.

Our findings thus far have only examined the effects on capabilities and performance within an Indian ITO suppliers' perspective. It has been shown, how managers of leading ITO organizations focus on dynamic capabilities to develop supplier-client linkages when enhancing their business performance. Some ITO projects fail due to a lack of timely responses or lack of provision of information. Sometimes issues on what firms have agreed with their clients just not happening. Indian managers try to capture the very best of their internal practice and add the external expertise from their sub-locations to exploit opportunities for client-centred performance. The client-driven approach and a special focus on dynamic capabilities are used to maximise IT-service excellence for both, their own business and their clients'.

Conclusions and implications

This paper contributes to management research in several ways. Firstly, the study is one of the first to have explicitly examined how dynamic capabilities might be comprehended and customized to drive up performance in the Indian IT offshoring industry. Our findings provide directions to all managers who deal with clients who have options in terms of channel and company or service provider choice. The path to better offshoring-management lies in understanding the complex nature of how to develop and use dynamic capabilities to turn loose linkages into strong long lasting relationships. Arguing about which dynamic capabilities make the greatest contribution to economic performance is not helpful here, because they all play necessary and complementary roles.

We posit that the dynamic capability of a supplier organization, which is made up of resources and competences, is very significant for ITO outcomes and success in a specific market. Competencies are important, since they can enable the creating of

new market opportunities that previously did not exist. Hamel and Prahalad (1990) call this the 'strategic stretch'. They explain that resource-allocation and the development of an administrative infrastructure brings life into a 'strategic architecture' and this creates a managerial culture, teamwork, a capacity to change, and to think long term. This ongoing process is the reason why the specific architecture cannot be copied easily. Strategic architecture is a tool for communicating with clients and other external partners, to continuously benefit from market opportunities and deliver performance in the supplier-client linkage (Prahalad and Hamel 1990; Prahalad and Mashelkar 2010). Organizations differentiate themselves by developing unique dynamic capabilities for the use of resources, and a higher level of performance results of the combination of both. This perspective makes management the decisive force that differentiates an organization and affects its growth and performance as well (Ehret and Wirtz 2010). Teece (2010) argues that the capabilities that are necessary for efficient operations, to benefit clients by translating services into value, are unlikely to be sufficient for sustaining performance. Followers may over time imitate capabilities and competitors when procedures become common practice in the offshoring IT industry.

When we apply the foregoing ideas and arguments in the Indian IT sector, we can draw on an important notion: In emerging markets, new market structures arising from digitalization, deregulation, globalization, and open-standards are shifting the balance of economic power from the sellers to the buyers. In such markets information is freely and widely available, and is almost instantly accessible. To compete in these circumstances, a firm must adopt new processes based on information technologies, and must carefully observe the price, quality, and convenience trends (Barreto 2010; Lacity et al. 2010; Einhoff and Rey 2011). Indian

companies have used western technologies but created disruptive business models that have completely altered the IT industry's economics. For illustration, IT-based software and service providers such as *Wipro*, *Infosys*, *TCS*, and *HCL* use off-the-shelf hardware, but they deploy new talent-based business models to be globally competitive. Those enterprises have crafted methodologies for partitioning work so that much of it can be done off-site, which allows them to benefit from the lower costs of talented engineers, programmers, and managers in India. Indian ITO firms focus on the internal sources of change, their technology, their business models and their linkages. Leveraging and linking changes is really how Indian ITO firms create disruptions that provide growth. However, outsourcers worldwide account for very little of the global software business, but they have changed the industry's dynamics (Chadee and Raman 2007). Indian outsourcers have also added new capabilities over the years – first offering lower costs, then creating better-quality processes, and now they are trying to provide end-to-end business solutions.

Amazingly, Indian ITO firms found a formula, while simply based on their cultural principles, to use loose linkages to business partners forming the supply-chain to execute negotiated contracts when adding value to their clients. Figure (3) illustrates the basic structure of the Indian business model when describing the transformation process from “loose linkages” into “strong relationships”. Impressively, most of our respondents were able to report client-loyalty rates between 90 and 98% of their business volume.

Figure 3: Using dynamic capabilities to build strong relationships

Indian managers are desired to turn loose linkages into strong relationships. Fortunately for experts, this seems to indicate that they know how to use, develop and customize dynamic capabilities in close collaboration with their clients. Especially *information coordination* and *information exchange* are the most useful drivers of performance within relationships.

Secondly, as Indian firms acquire and learn organizational capabilities for sourcing resources and capabilities for their operations they will learn to mix services of multiple suppliers into a form of meshed-up organisation. New Indian suppliers have the advantage of flexibility relative to Western multinationals with their more hierarchical structures. It involves learning new organizational capabilities as they move into new web-based network structures. In contrast to operational capabilities *dynamic capabilities* concern change (Eisenhardt and Martin 2000; Winter 2003; Teece 2010).

A third important contribution of this study is the understanding of how management uses dynamic capabilities as a catalyst when influencing relationships between IT-suppliers and their clients. The literature has often focused on single

channel management and neglected to take into account supply-chain partners and other collaborative resources when executing offshoring contracts (Priem and Butler 2001; Zahra and Hayton 2008). As one of the most important service-supplier capabilities, absorptive capacity refers to a firm's ability to acquire new external knowledge, transform knowledge, and apply it to commercial ends (Cohen and Levinthal 1990; Teece 2009; Roza 2011). It is a strategically valuable capability that is firm specific and firm embedded (Helfat 2007). The sourcing firm moderates the linkages between a co-aligned sourcing strategy and its performance. The client benefits from the IT suppliers' dissemination capacity, the characteristic of the knowledge and the nature and level of the relationship between the exchanging parties.

Lastly, when we examined the added value, which is included in the performance outcome, we looked at the entire offering an Indian offshoring firm may provide. Their offering goes beyond the core product or service. It has the potential to meet the higher-order needs of clients and to create value at a much higher level than ordinary service delivery (Mattsson 1992, 1997; Oliver 2002; Ulaga and Eggert 2005; Zott and Amit 2010). However, different client segments value different combinations of (1) process (2) people (3) product, service, technology and (4) support features. Indian managers desire to acquire, retain and develop the most valuable clients by employing customer lifetime value and customer-level return on investment measures.

In conclusion, these results point to the importance of focussing on research that will assist managers in profiling their clients about their dynamic capabilities. This will also help enable optimization in capability development and customization strategy, improved perception of value, and how future research could be conducted when examining dynamic capabilities within relationship development in the IT

offshoring industry. Firms that deploy dynamic capabilities more successfully in collaboration with their clients will gain large business model advantages and drive growth and productivity gains. Furthermore, firms that combine data with other firms' data, in most cases this could be carried out without direct human involvement, will extend the dominance of information and added value even further. In theory, all the interconnectedness will lead to a higher level of trust and transparency, and it will increase stability by helping to diversify risk. The key will be to develop better dynamic capabilities and to focus on turning *loose linkages* into *strong relationships* and building in greater flexibility and resilience.

Limitations

As with all qualitative research, the main limitation of the present study is that no statistical generalisations can be made (Yin 2009). Future quantitative research should focus on how dynamic capabilities impact on performance by means of supporting the transformation from loose linkages into strong supplier-client relationships. It should be also acknowledged that the empirical data were derived only from interviews with the management of ITO service-suppliers. More research into the clients' role and other key resources such as supply-chain partners and customers is required for a full understanding of our framework.

Acknowledgement: We would like to thank Education New Zealand for financial support for the field research project. We are thankful to the interviewees for their valuable inputs; however, the authors assume full responsibility for the content of the paper. The corresponding author thanks Aalto University in Helsinki, Finland, for supporting his visiting program where Markus wrote most of the manuscript at the School of Economics. We also thank the University of Auckland where Revti collected the data as a part of his PhD project at the university.

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Appendix 1: Profile of Top 20 IT Offshore Service Providers in India

Company	2009 Revenue (US\$ Mil)	Nature of Business: Main services provided
Tata Consultancy Services	6300	IT Services, IT Infrastructure Services, Enterprise Solutions, Consulting, Business Process Outsourcing, Engineering and Industrial Services, IT Software
Wipro Technologies	5880	Consulting, Business Process and Technology Services, Enterprise Application Services, Infrastructure Management, Product Engineering Design and Product Support
Infosys Technologies	4804	Consulting, Application Services, IT Infrastructure Services, Business Process Outsourcing, Software Development, Product Engineering
HCL Technologies	2324	IT Applications, IT Infrastructure Management, Business Process Outsourcing, Product Engineering
Genpact	1120	Broad Portfolio with Solutions in Finance & Accounting, Procurement & Supply Chain, Collections & Customer Service, Human Resource Services, Content Solutions, Risk Management, IT Infrastructure Services, Enterprise Application Services
Mphasis (BPO)	945	Business Process Outsourcing: Customer Sales & Support, Finance & Accounting, and Human Resources Outsourcing services
Patni Computers	656	IT services, Product Engineering Services, Infrastructure Management Services, Business Process Outsourcing
I-Flex Solutions	618	Software and Services Solutions Footprint for the Financial Services Industry
L&T Infotech	424	Applications Development, Maintenance and Outsourcing, Business Process Services, Consulting, Infrastructure Management Services, Oracle and SAP Services
Hexaware Technologies	230	IT Services – application development and reengineering, Enterprise Applications, Infrastructure Development, Business Process Outsourcing, Consulting
i-Gate Global Solutions	226	Complete to-end Services that Integrate Consulting, Technology, Business Process Outsourcing and Provisioning
Mastek	209	IP Led Services and Business Technology Services including IT Consulting, Application Development, Management and Security, Systems Integration,
NIIT Technologies	202	IT Services in Application Development & Management, Enterprise Solutions and Managed Services; Business Process Outsourcing
EXL service Holdings	191	Transformation and Outsourcing Services in Multiple Industries including Insurance, Banking, Financial Services, Utilities, Transportation and Travel.
Polaris Software	Na	Polaris offers software solutions for core banking, corporate banking, wealth & asset management and insurance.
Siemens Information Systems	Na	Consulting, Software Deployment, System Integration, IT Infrastructure Management
Perot Systems Satyam Computers Covansys Flextronics	Na Na Na Na	These 4 companies have since been subject to takeovers and thus current data is not available.

Sources: annual reports and the company websites