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Capturing Value amidst Constant Global Restructuring? Information-Technology-Enabled Services in India, the Philippines and Kenya

Jana M. Kleibert¹ · Laura Mann²

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Abstract

Information-technology-enabled services (ITES) has become a sector of promise for many low- and middle-income economies seeking to leapfrog industrialization and build knowledge-intensive economies. Yet as a sector defined by accelerating processes of commodification and skill elimination, its long-term developmental promise must be carefully scrutinised. Analysing the development of the sector in India, the Philippines and Kenya the paper reveals both the contextual nature of past successful ITES policies and their developmental vulnerabilities. Drawing on literature on industrial policies and global value chains and production networks, the paper critiques the existing policy approaches by arguing that they are largely focussed on enabling value and employment creation and that they pay insufficient attention to questions of value capture and long-term socio-economic transformation.

Keywords Services · Information-Technology-Enabled Services (ITES) · Business Process Outsourcing (BPO) · Kenya · India · the Philippines

Résumé

Les services axés sur l'information et la technologie (ITES) sont devenus un secteur prometteur pour de nombreuses économies à revenu faible ou intermédiaire qui cherchent à sauter la case industrialisation pour construire des économies à forte intensité de connaissances. Nos analyses du développement du secteur ITES en Inde, aux Philippines et au Kenya révèlent à la fois la nature contextuelle des politiques ITES réussies par le passé et les vulnérabilités du développement. Nous montrons

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que le potentiel de développement à long terme du secteur pour les nouveaux entrants, comme le Kenya, a souvent été exagéré compte tenu de la prémisse du secteur axée sur l'externalisation et la délocalisation des services sur un fond de restructuration économique mondiale visant l'arbitrage des coûts. En nous appuyant sur la littérature sur les politiques industrielles et les chaînes de valeur mondiales et les réseaux de production, nous critiquons les approches politiques existantes qui se concentrent largement sur la création de valeur et d'emplois, sans accorder suffisamment d'attention aux questions de récupération des plus-values et de transformation socio-économique à long terme.

There is no final stage, no settled geography, and no moment of equilibrium in the continuously restructuring world wrought by global outsourcing. The intersecting calculi of cost, competition, techno-organizational capabilities, and geographical location are always in motion, their dynamic interactions making for a perpetually restless landscape (Peck 2017, p. 203).

Introduction: ITES as the Road to Economic Development?

As the traditional development path associated with export-oriented manufacturing has narrowed due to the integration of China into the global economy and the resulting shifts in terms of trade (Jenkins and Edwards 2015), services have emerged as a potential new path (Dossani and Kenney 2007; UNCTAD 2004). Some scholars have claimed that services will allow low- and middle-income countries to 'leap-frog' manufacturing (Larson and Munger 2017, p. 134; for a critique, Rodrik 2016; Juma 2017). Such hope has been particularly pronounced in African countries, where a high number of workers are employed in low-productivity agriculture and where economies are struggling with de-industrialization.

The information-technology-enabled services (ITES) sector, or business process outsourcing (BPO) sector, as it is sometimes known, encompasses all services that can be digitized and manipulated at a distance, including call centre services, back-office processes, data management, information technologies (IT) development, software support, transcription and engineering services. The types of services that can be electronically delivered across distance have changed profoundly over time, given technological innovations and reductions in communication costs made possible through the spread of fibre optic cables.

India's economic growth on the basis of export-oriented services has inspired policy-makers elsewhere to emulate its trajectory. These aspirations fit into a broader narrative about information and communication technologies (ICTs) which positions ICTs as opening and enabling new forms of economic inclusion and market access (Graham and Mann 2013; Ouma et al. 2019). This narrative echoes earlier colonial modernization theories that linked economic development to big infrastructure projects; narratives which are now experiencing a revival with the growing importance of digital infrastructures in facilitating economic activities (Ibid; Graham et al. 2015). If the Indian case indeed epitomizes a new model of economic



development based on services off-shoring, the question of replicability arises (Paus 2007, p. 16). Many countries seem to be guided by implicit or explicit assumptions that India's trajectory¹ can be copied, without accounting for the specific positionality, socio-economic embeddedness and historical contextualization of the sector's emergence and subsequent development in the country. Embedded in the idea of replicability are three implicit assumptions: First, that the technology underpinning ITES production remains stable; second, that the geography of ITES production is merely determined by a combination of labour and internet costs; and third, that early entrants like India will exit the market as their labour costs rise, thus leaving the door open for newly connected providers from lower-cost locations to emerge. This paper argues that all three assumptions oversimplify the historical diffusion of ITES as it has evolved across borders and firm boundaries.

While opportunities for transnational labour arbitrage provided the initial founding rationale for the sector, neither the technology nor the production process itself has remained stable. Leading firms and workforces in established destinations have not exited the market, nor fully shifted into alternative higher-value activities, and thus they have not left the bottom rungs of the sector open to new entrants. Rather, actors in these early destinations have reconfigured production processes at both low- and high-value ends, seeking to eliminate skill or even human cognition from low-value production in an effort to maintain competitiveness amidst rising wages and accelerating client demands. Typically, large contracts sourced from high-value clients are broken down, rationalized and distributed to diffuse delivery networks around the world. Lead firms are able to identify and capture the highest-value components while subcontracting less lucrative components to others. Inexperienced new entrants may even struggle to distinguish high- and low-value work, putting them at a distinct disadvantage and making them vulnerable to exploitative contracts.

Concurrently, while early proponents of outsourcing prophesized trade gains for both sending and receiving countries through frictionless transnational labour arbitrage, such arbitrage has never truly been frictionless. As others have shown, the sector has faced persistent operational challenges and high transaction costs in delivering high performance under conditions of cost suppression, requiring the interventions of what Peck has described as "communities of rather stressed practice" (2017; 6). The sector, as it is currently constituted, remains dependent on a whole set of "advisory and consulting firms, specialist intermediaries and service providers, and third-party vendors" with tacit knowledge and built-up interpersonal trust (Ibid; 13). As a result, while cheaper 'shores' may emerge, the risks and costs of poor management by new entrants can be substantial, giving lead firms significant strategic position and bargaining power. Thus, rather than the technology and production of ITES diffusing 'naturally' across borders through expanding internet connectivity

¹ For instance, in a paper examining the developmental potential of the ITES sector in the Philippines, the authors provide a muted assessment of the sector's current developmental contributions but explain that 'It may be sometime before the Philippines can "mature" to a similar level as India' (Magtibay-Ramos et al. 2008, p. 45).



and rising labour costs, distinct hierarchies of production have emerged, with new entrants facing drastically different sets of conditions than those faced by earlier entrants. This changed reality makes it hard for new entrants to replicate the same mix of policies and private sector initiatives to achieve the same developmental gains, particularly as such gains continue to narrow due to automation.

To put it bluntly, the notion that low- and middle-income countries can simply ‘leapfrog’ manufacturing by gaining a foothold in low-cost transnational labour arbitrage is unrealistic. Precisely what made manufacturing such a strong driver of growth were the technological rents and oligopolistic advantages enjoyed by innovative firms, which then slowly diffused to new destinations that could provide competitive cost–capability ratios as technology dispersed. However, as Bernard and Ravenhill (1995) demonstrated over two decades ago with respect to the development of regional manufacturing networks, the shift of production processes out of the firm and into the network has greatly diminished the ability for low- and middle-income countries to follow the ‘product cycle’ and develop. The threat of automation that currently haunts the ITES sector represents further proof of this long-term trend towards increasing concentration of technological advantage within smaller and smaller groups of firms and people. Pinning a country’s hopes of economic transformation on a sector that is not only characterized but defined by such accelerating processes of commodification and automation is a risky strategy.

To demonstrate this trajectory, the paper focuses on three countries whose articulation with ITES came at different temporal moments: India from the 1990s, the Philippines from the early 2000s and Kenya from the late 2000s onwards. The first two cases reflect the most prominent examples in terms of their respective sizes: India and the Philippines alone occupy the first eight positions in consultancy rankings of services outsourcing destinations (Tholons 2014) and are frequently mentioned in policy circles and literature as ‘successful’ examples. Moreover, the analysis focusses on Kenya, as an example of a more recent aspiring ITES hub.

Multi-sited relational and comparative research has been recognized as a crucial opportunity for understanding complex emerging phenomena of transnational reach. However, conducting multi-sited empirical research presents a number of challenges, not least in terms of available finance. The present analysis draws on findings from two separate research projects: one on the emergence and evolution of the ITES sector in the Philippines and India, and one focussing on Kenya. Both research projects were based on extensive qualitative research aimed at understanding the policies for initial facilitation of the export sector and its subsequent evolution and respective outcomes. Methods involved semi-structured interviews with policy-makers, industry and firm representatives in India (21), the Philippines (77) and Kenya (50). We draw on secondary literature to establish the broader settings of the ITES sector in all three countries. Thus, the key aim here is not to reproduce the more detailed empirical findings of these separate research projects (Kleibert 2014, 2015 and Mann and Graham 2016; Foster et al. 2018). Rather, the cases are placed into comparative and historical perspective to tease out the developmental opportunities, actions and outcomes experienced by actors within each country as the ITES sector expanded across time and space.



The next section situates ideas about the replicability of India's economic development trajectory in relation to older theories linking the economic development of low- and middle-income countries to technological diffusion across borders. As shown in this paper, the constant attempt within the ITES network to minimize skill and therefore technological rents from production makes it increasingly difficult for new entrants to engage with the sector in a strategic manner. Indeed, development ultimately depends on those technological rents that are progressively being eliminated by lead firms within the ITES network. Section three uses the concept of 'strategic coupling' from the Global Production Networks framework to disaggregate different kinds of engagement and developmental gains across the three cases. Section four contrasts these experiences with some of the underlying narratives circulating about the sector in development literature. The conclusion highlights the main theoretical and policy implications.

From Industrial Policy to Strategic Coupling in Value Chains

Technological innovation has long been credited with the creation of knowledge-based and technological rents (or profits) for innovative firms and wage premiums for skilled workers (Schumpeter 1939; Goldin and Katz 2009). Economic development, as a country-wide phenomenon, has likewise been associated with the historic shift from low-skilled agriculture into higher-skilled manufacturing due to the entry barriers and resulting technological rents associated with manufactured goods relative to agricultural commodities (McMillan and Rodrik 2011; Erten and Ocampo 2013).

One popular iteration of technology's role in development has been the 'product cycle theory', as developed by Vernon (1966). In the era before global value chains, he postulated that, while innovation initially occurs in high-income countries, its production shifts into lower-wage economies where firms and workforces are able to offer competitive cost-capability ratios as a product's technology matures. This inflow of production brings both employment opportunities but also, importantly, technological capabilities, which afford the recipient economy with relative entry barriers within the global economy and thus higher wages and profits. In this model, firms and workers in the initial country progressively abandon the product's production to focus on newer, more innovative and lucrative activities, thus freeing up the rungs at the bottom of the international trade ladder for others (Vernon 1966). Development thereby becomes a story of technological diffusion and replication across borders, with each geographical shift representing a temporal opportunity for a new entrant to move into more technologically advanced production and take a step up the international learning curve (Bernard and Ravenhill 1995).

While most development economists would agree that learning and skill development have long constituted key processes of development and that technological spill-overs represent key benefits from international trade, opinions differ as to the speed and relative level of government intervention required to spur this process of learning across borders. On the one hand, neo-classical economists would argue that countries should climb relatively carefully up the learning ladder,



conforming closely to their comparative advantages at each rung (Lin and Chang 2009). Attempts to proceed too swiftly would result in the establishment of uncompetitive enterprises and therefore spell economic disaster. In this view, policy-makers must therefore concentrate on improving macroeconomic stability and on removing regulatory hurdles to encourage foreign investment and technology to enter at its own pace.

Heterodox economists, on the other hand, would argue that strategic ‘industrial policies’ are necessary to speed up this slow and often reluctant process of technology transfer. While the term ‘industrial policies’ conjures up visions of Asian developmental states pursuing import-substitution policies or export-oriented industrialization, more recent analyses have broadened the term to include any policies that engage strategically with global markets to spur technological learning across agriculture, manufacturing and services (Whitfield et al. 2015, p. 35). These policies differ from conventional policies designed to create ‘enabling business environments’ because they put pressure on firms to engage in risky and longer-term investments into learning, likely to have spill-over benefits for other domestic firms and workers and to change the knowledge base and structural features of the economy (i.e. to increase the share of the workforce in low- and high-productivity activities) (Oqubay 2015; Kaplinsky and Morris 2016). While industrial policy introduces incentives that generate government-created rents (through subsidies, preferential trade arrangements and other support mechanisms), these rents are not pursued as an end but as a means to increase private sector investment, incentivize learning and foster the accumulation of knowledge and governance control by domestic groups (Chang 2002; Khan 2010).

Industrial policy has been controversial, and until recently, neo-classical economists had the upper hand in these debates (Mkandawire 2001; Chang 2002; Wade 2003). However, industrial policies have slowly crept back onto the development agenda either covertly or even overtly—in the case of the United Nations Economic Commission for Africa (UNECA)’s recent report, *Transformative Industrial Policy for Africa* (2016). A number of factors have driven this (re-)acceptance, including the fall-out from the 2008 financial crisis, slowed investment and productivity in advanced economies (Wade 2012), the growing global prominence of Asian powers in development debates (Fourie 2014) as well as debates within mainstream developmental theory about the impacts of globalization and financialization on trade flows and R&D spending (Lin and Chang 2009; Stiglitz et al. 2013; Mazzucato 2015; Ostry et al. 2016).

Yet, while there has been a gradual re-acceptance, today’s industrial policies must necessarily differ from those of the past, as the ‘product cycle theory’ no longer fully captures the way technological rents diffuse in today’s global economy. The ability for managers to break down and reconstitute production tasks outside the boundaries of the firm has had profound impacts on the structure of global trade and technology, transforming the global trade regime from one of ‘trade in goods’ to ‘trade in tasks,’ and spurring the creation of complex and geographically stretched global value chains or global production networks (Coe et al. 2004; Coe and Yeung 2015). As production processes have been re-organized and separated, with lead firms coordinating and governing these networks, the production of a whole good or service no



longer takes place within a single firm or region. As such, it no longer makes sense for low- and middle-income countries to try to develop vertically integrated value chains and to create national champions through infant-industry protectionism. Such national champions would be unable to compete with hyper-efficient production networks. Rather, proponents advocate industrial policies that target the development of specialized niches within global value chains and the use of those niches to build up domestic technological competencies (Gereffi and Sturgeon 2013; UNECA 2013 Yeung 2015). Some suggest the need to move away from the term industrial policy and instead speak of productive sectoral capabilities or even cross-sectoral technological capabilities (Kaplinsky and Morris 2016).

In this new literature, there is a more explicit focus on learning as a policy objective, as opposed to mere value creation and employment generation. The Global Production Network approach distinguishes three different categories of value creation, enhancement and capture that affect regional development (Coe et al. 2004; Coe and Yeung 2015). Value creation occurs through the initial articulation into global production networks, as employment and income is generated, even in low-end processes. Value enhancement occurs through moving into higher-value added activities or a different position within the value chain, a process also termed ‘upgrading’ (Gereffi et al. 2005). Sectoral debates are often pre-occupied with upgrading, which has practically “become synonymous with economic development” (Milberg and Winkler 2013, p. 23). Yet this conflation of upgrading with development is problematic because the unit of analysis is unclear, as upgrading can relate both to individual firms or countries. More importantly, the improvement of individual firms’s position within value chains (‘economic upgrading’) may not aggregate up to a simultaneous positive outcome for broader (regional or national) economic development. Thus, value capture within the domestic economy is crucial, because global production networks also function as “vehicles for transferring the value captured between different places and regions” and they can therefore transfer value out as well as into particular regions and countries (Yeung 2015, p. 2; see also Murphy and Carmody 2015, pp. 156–166).

The ability of firms to break down their business operations and parse out profitable complex processes from low-value systematised processes and off-shore the latter elsewhere enables a geographic separation between the places of (re-)investment, knowledge and skill accumulation and those of cost suppression, rent elimination and profit extraction. Thus, even in cases where trade flows do result in an expansion of employment, these activities can be restricted to low-wage work and/or work based on dependent relations with lead firms, which offer little opportunity for technological learning. Over the long term, this form of integration can result in declining terms of trade (Gibbon and Ponte 2005; Ohno 2010). Scholars have developed concepts such as ‘immiserating growth’, ‘adverse incorporation’ (Hickey and Du Toit 2007) and ‘inward-oriented’ global production networks (Murphy and Carmody 2015) to describe forms of disadvantageous global integration (see also Coe and Hess 2011).

While value creation and enhancement have typically been represented as sources of employment and exports, value capture involves broader processes of learning and increasing control over innovation and market governance. Such transformation



encompasses a range of related processes including the accumulation of technical expertise and tacit knowledge (Whitfield et al. 2015), the growth of networks between public bodies, universities/research institutions and private firms (Mazzucato 2015; Juma 2017), the diversification of the economy through intra-sectoral linkages and spill-over (Oqubay 2015) and, ultimately, some degree of domestic ownership over strategic decision-making (Ohno 2010). Achieving value capture is difficult for low- and middle-income economies as the leeway to do so is structured by the governance modes of these networks.

Generally, the most lucrative network positions are occupied by lead firms with the power to coordinate and orchestrate production processes involving suppliers and sub-suppliers across borders (Gibbon and Ponte 2005). In cases where the sector is dominated by rather footloose networks of branch plants of multinational corporations (MNCs), firms are likely to make location choices based on cost considerations rather than on longer-term benefits for specific places. When the outsourcing of activities by lead firms does result in the build-up of technological capabilities, it can be concentrated in a few specialized clusters confined to non-strategic areas of expertise and skill (Altenburg et al. 2008). Domestic firms are arguably more territorially embedded and tend to be 'stickier' and less likely to transfer profits abroad (Ohno 2010; Whitfield et al. 2015). Yet many low- and middle-income countries lack strong domestic firms and are more dependent on foreign investors (Behuria 2017, p. 32). Thus, some commentators suggest that low- and middle-income countries should use local content units to cultivate productive linkages between foreign firms and domestic firms upstream and downstream and use industrial policy to incentivize investment into domestic learning² (Oqubay 2015; Sutton et al. 2016).

Economic geographers argue that the ability to capture value is structured by the *mode* of strategic coupling through which domestic assets are tied to global and regional production networks. Strategic coupling is the intentional linking of domestic assets to the demands of translocal actors within global production networks by policy-makers and others for the specific purpose of activating domestic/regional economic development (Coe et al. 2004; Yeung 2015; Coe and Yeung 2015). Coupling is understood as a dynamic process, strategic but also contingent, critically dependent on the emergence and decline of global opportunities, which are often incidental and out of the hands of domestic actors. Coe and Yeung (2015, pp. 179–190) identify three modes of coupling distinguished by the types of actors involved and the direction of articulation with global production networks by foreign and domestic actors. If external actors set up a subsidiary in a region and thereby provide access to global production networks, this form of coupling is classified as 'outside-in'. When domestic firms start exporting or become lead firms coordinating global production networks themselves, this form is classified as 'inside-out'.

The three modes are theorized to present different opportunities for value capture, with indigenous coupling offering most substantial opportunities for value capture:

² Of course, it would be too simplistic to conflate domestic firms with national economic development, as the interests of domestic capitalists will not necessarily coincide with 'national' interests. This is for instance shown by the reorientation of national champions in the case of East Asia (Yeung 2014).



- *Structural coupling* occurs when foreign firms off-shore and outsource low-end activities to a new location and is primarily driven by (labour) cost considerations. In this ‘outside-in’ relationship, external actors invest into a region. Foreign direct investments generally occur in special economic zones, with the resulting goods and services consumed abroad, an arrangement that leads to considerable dependency, offers limited opportunities for local value capture and is ultimately highly vulnerable to automation.
- *Functional coupling* allows for some degree of autonomy and value capture. Rather than cost alone, it is the cost-capability ratio (i.e. the capabilities of a firm available for a certain price) that matters. The relationship can be either ‘outside-in’ or ‘inside-out’, with foreign firms entering or domestic firms linking up with global production networks. In the latter case, domestic firms can become strategic partners, which require them to engage in explicit upgrading strategies with respect to technology, labour and infrastructure.
- *Indigenous coupling* offers the largest potential for value capture, technological capability accumulation and autonomy. In this ‘inside-out’ relation, domestic firms connect with global markets and become lead firms that organize global production. Achieving this most precious form of coupling requires strategic and long-term industrial policy and may involve strategic decoupling and successive recoupling (Horner 2014; Kaplinsky and Morris 2016).

Policies that focus solely on short-term value (and employment) creation and thus on structural types of coupling miss the point. Funnelling state resources into such activities can even be disadvantageous in the long-term. Although such investments may build on existing competitive advantages and create employment, they can lock places into low-end positions within the international division of labour and can leave workforces vulnerable to declining terms of trade. Automation, moreover, will present a particularly critical moment for the reorganization of ITES work.

During the period of transition in which service-based tasks were unbundled and could be transferred from high-income countries to lower-cost countries abroad, restructuring offered potential trade gains in the form of labour arbitrage for companies and relative wage premiums and technological capabilities for the low- or middle-income country. Yet these opportunities have diminished greatly as a result of both automation and the narrowing transnational wage gap (Peck 2017, pp. 178–183). The intense routinization of tasks required to shift production into lower-wage economies is now paving the way for robotic process automation (RPA) and business process as a software (BPaaS) (Frey and Osborne 2017). Thus, as ITES networks become more efficient and skills are further removed from the production process by lead firms, the potential for technological upgrading and value capture for low- and middle-income countries also erodes.

Many ITES policies and initiatives have focussed solely on creating the ‘enabling conditions’ for the sector to flourish. The World Bank and the Rockefeller Foundation have played a role in promoting this approach (Dalberg 2013; Raja et al. 2013; Kuek et al. 2015). These policies fit into the ‘inclusive markets’ paradigm in which poverty is associated with disintegration from global markets rather than on strategic engagement (Meagher et al. 2016). Due to the ITES sector’s reliance on internet



infrastructure, integration has often been equated with digital connectivity (Graham and Mann 2013). ‘Enabling’ has thus involved investments into large-scale internet infrastructure and bandwidth subsidies. Other ‘enabling’ policies include promotional tours, basic training programs and the suspension of certain taxation and labour legislation (Kuek et al. 2015).

More recently, the World Bank and Rockefeller Foundation have actively promoted ‘microwork’ initiatives, including Nigeria’s ‘Naija Cloud: Microwork for Job Creation’ project (Paradi-Guilford and Kuek 2015) and Kenya’s ‘Ajira Digital Platforms’ (Maina 2017). These programs encourage and train young Nigerians and Kenyans to work as freelancers on low-wage micro-work platforms such as CloudFactory, MobileWorks, Mechanical Turk and Upwork. Firms use these sites to increase efficiency and lower labour costs by breaking business processes into simple tasks and distributing them piecemeal to workers competing on price levels around the globe. While these labour platforms do provide employment to workers in low- and middle-income countries, it is unclear how such disparate, fragmented and potentially transient work can contribute to long-term transformation or to building linkages between ITES and other sectors. Criticism of these programs has hitherto focussed on concerns for labour rights (Graham et al. 2017). Yet more importantly, dependency on this type of work offers limited opportunities for structural economic transformation, particularly as early entrants have already established themselves in strategic positions and as the sector becomes increasingly subject to automation. A more strategic orientation would involve clearer understandings about processes of value creation, enhancement and capture within this constantly evolving global context.

The following section empirically analyses the trajectories of India, the Philippines and Kenya to answer the following questions: (i) at what moment and under what conditions have ITES sector engagements occurred? (ii) what kinds of policies were introduced? and (iii) what types of ‘couplings’ emerged and what were their impacts on development?

Analysing Trajectories of ITES Engagements in India, the Philippines and Kenya

1980s Onwards: India

India has become a lodestar of export-oriented development based on services. In 2016, India was exporting a large variety of IT and ITES services, collectively amounting to US \$110 billion export revenue and employing 3.7 million workers. The ITES sub-sector (business process management) employed 1.04 million workers and generated US \$26 billion export revenue in 2015 (NASSCOM 2016).

India’s spectacular ascendance as the ‘back office of the world’—from the short-term labour migration of IT specialists to client sites (‘body-shopping’) to a global delivery model of integrated services—has been explained in more detail elsewhere (e.g. Dossani and Kenney 2009; Lee et al. 2014; Parthasarathy 2013). Scholars explaining India’s trajectory have highlighted different factors for its success. Above



all, the availability of a large pool of skilled labour at relatively lower cost made labour arbitrage possible. British colonial rule led to the prevalence of the English language skills and the creation of a highly educated elite upon which the sector could draw.

The existence of educated English-speaking surplus labour alone, however, would not have sufficed to allow India to plug into global production networks with such intensity. Crucially, the temporal-specific demands of multinational lead firms presented a key window of opportunity for India's specific skill sets to be matched with global industries' needs. These were a mix of financial pressures as a result of the recession following the bursting of the dot-com bubble, the massive amount of coding-labour required to fix the Y2K-bug at the end of the millennium and financialization leading to pressures in high-income countries to create shareholder value through leaner firms, thereby transferring all non-core activities to foreign suppliers and/or off-shoring to different locations. Another key feature for India has been the existence of a strong transnational community in export markets, in particular the USA, through overseas study or work experience. Through these personal connections, members of the diaspora could link firms to clients in the global North (Saxenian 2005).

Both the inflow of foreign investors such as General Electric Capital, which later spun-out as Genpact (now India's largest ITES firm), and the diversification of existing Indian conglomerates such as Tata Steel (the founder of Tata Consultancy Services, the country's second largest ITES firm) contributed to the rise of the domestic Indian service sector. In addition, the sector founded an umbrella organization for all IT-ITES firms in 1988, NASSCOM, which developed into a powerful business association that has since been active both in negotiating with the government for favourable policies and in marketing the sector to prospective clients abroad (Karnik 2012).

Several policies contributed to the rise of India on the global services map. Initially, India's import-substitution policy led to a decoupling of India's economy with global production networks, epitomized by IBM's departure from India in 1978. This period was markedly different from the early development of the sector in the Philippines and Kenya, as import-substitution policies were part of the developmental toolkit in the 1970s. While this period's political-economical environment created many barriers for export-led development, this widened policy space helped nurture Indian-owned firms throughout the period. Once gradual liberalization of the economy began in the 1990s, Indian firms were quick to recouple with global production networks and foreign clients, with some former hardware firms shifting into new sectors such as software and ITES (Gregory et al. 2009). A respondent from NASSCOM argued that Indian firms were fast to upgrade their service offerings precisely because of the export-orientation of the sector from the start: "We had to meet benchmarks internationally, since no domestic market for IT was existing in India". In addition to reducing barriers to trade, relevant policies included the liberalization of telecommunications (with subsequent reduction of costs) and the opening of the education sector in selected states to private actors. The reform led to an upsurge of engineering and technical universities, thereby increasing the educated labour pool with technical



skills relevant to the IT sector. In more direct terms, the Indian government instituted the Software Technology Parks of India (STPI) in 1991, a critical policy for creating subsidized infrastructure for services-export and offering tax incentives. Though officially terminated in 2011, it has been replaced with a special economic zone initiative, granting largely similar benefits. While these policies have not targeted specific firms, they targeted specific needs and requirements of the ITES sector (through the involvement of NASSCOM) and thus went beyond general ‘business enabling’ policies and foreign direct investment (FDI) attraction activities.

Initially, the Indian off-shore service sector’s ‘body-shopping’ practices represented a very temporary low-end integration into the ITES sector, followed by the delivery of basic software services from India through foreign investors’ and domestic-owned firms (structural coupling). From this initial step, over time, some firms were able to upgrade and become strategic partners of lead firms by diversifying beyond their competitive advantage in IT, offering ITES functions, such as enterprise resource management or customer services (functional coupling). More recently, several Indian off-shore service firms have expanded globally by opening subsidiaries abroad, both to access markets in advanced economies such as the USA and to broaden their delivery networks by adding subsidiaries in other low- or middle-income economies such as the Philippines. Operating a global delivery model, with office networks spanning continents, several firms have become lead firms with the power to decide whether to subcontract lower-end tasks to second- or third-tier suppliers or to off-shore tasks to captive offices in low- and middle-income countries (indigenous coupling). India’s large domestic market has also led to the simultaneous development of a domestic services outsourcing sector, which offers employment opportunities to workers who are not proficient in English. Examples include customer service centres for telecommunications corporations. Moreover, the vibrant ITES sector is able to support domestic firms in other sectors.

Despite India’s successful integration in global networks of ITES, the services sector has been critiqued for its failure to foster inclusive development. The most frequently voiced concern is the perpetuation of existing inequalities and increased socio-economic polarization. Drawing on highly educated, often urban, employees, well-paid employment and careers are available primarily to workers from existing middle classes, who have benefitted from high-quality (and often, international) education (D’Costa 2011). ITES thus does not offer the same developmental opportunities as the large-scale integration of rural agricultural workers into low-wage labour in factories through the off-shoring of manufacturing activities. Employment is moreover spatially concentrated in the most advanced urban centres, as firms depend on an infrastructure of strong universities, airports, telecommunications connectivity and other amenities, thereby potentially increasing rural–urban inequalities.

Automation and the increasing use of artificial intelligence for less-complex processes at the lower end of the ITES spectrum has not only affected firms in India, but its development has also been driven by lead firms involved in developing and training software to take on routinized tasks (Roberts 2019). Thus, while some Indian firms have lost employment through automation, others have been able to



offer competitive cost–capability ratios at the high-value end while seeking to eliminate skill or even human cognition from production at the low end. This strategy to erode potential opportunities at the lower rungs makes it very difficult for new entrants to replicate India's early experiences.

Early 2000s Onwards: The Philippines

The Philippines' engagement with service exports started much later, was less strategic and has primarily been based on the country's surplus of unemployed graduates with English-language skills which were rather 'accidentally' coupled with the demands for cheaper English-language customer service by MNCs. Foreign investors, some of which had experience with off-shoring to India, capitalized on English-language skills with 'neutral' accents, relocated call centre work and, increasingly, administrative back-office tasks in finance and other sectors to the Philippines. In one and a half decades, the ITES sector grew to employ 1.2 million workers and generate US \$24.7 billion revenue in 2018, making it the second-largest foreign revenue earner after remittances (IBPAP 2019). Unlike India, the sector is largely driven by foreign investments, with the vast majority of subsidiaries exporting voice-based services to North America.

The key window of opportunity arose as a result of the technological changes and political decisions that led to substantially reduced prices of long-distance phone calls and internet connectivity in the early 2000s. This shift created opportunity for new kinds of work: long-distance conversational interactions with clients, in which the spoken English-language capabilities with 'neutralized' accents demanded a premium. Secondly, the Asian financial crisis led to a severe reduction of office costs even for prime real estate locations in Metro Manila.

Policy-makers were largely taken by surprise. The main policy responses, then, were modifications of existing policies (enabling FDI, advocating export-oriented development and providing incentives through special economic zones) that had been devised for export-oriented manufacturing now adapted to services. Later, the government, together with the Business Processing Association of the Philippines (BPAP), supported the sector in two ways: first, through sector-specific education initiatives, in particular, by financing scholarships for post-graduate vocational training, so-called 'near-hire-training', of more than 65,000 individuals for job-market entry in lower-skilled call centre jobs (Kleibert 2015); and second, through branding and selling the country and the 'Filipino worker' abroad, rather than particular firms, as 'national champions'. Both strategies were largely adapted from the remittance-based long-term economic labour export strategy of the Philippines (Rodriguez 2010).

Its mode of integration can be classified as structural coupling, based on access to labour arbitrage and exports from 'production platforms' in special economic zones. While employment creation has been substantial, opportunities for local value capture beyond individual employee's salaries appear limited. Though policy-makers and firm managers express ambitions to 'move up the value chain', this drive to date has primarily involved the addition of more skill-intensive tasks in



captive back-office operations. Functional coupling remains difficult to achieve and would require investment into different skills sets, including managerial and technical skills. Padios (2018) analyses the rise of Philippine call centre employment as a post-colonial predicament, in which she shows how “despite its economic promise, the cultural and social value of call centre work is anything but stable” (Padios 2018, p. 4) and oscillates between transnational white-collar work in the knowledge economy and precarity at the bottom of feminized and racialized global hierarchies of labour that is (re)negotiated by workers and the state.

In contrast to the experience of India, in which domestic-owned companies have been able to capture a larger share of the global market over time and develop strategic network positions as a result, the Philippines ITES sector depends increasingly on foreign investors, who account for 93% of the sector (Yi 2012, p. 137). The few domestic-owned firms in the sector face competitive pressures and are crowded out by MNCs. In the words of a chairperson of the Contact Centre Association of the Philippines (CCAP): “There are [Philippine-owned call centres], but they are all small. The big ones are all multinationals; that’s different from India. [...] Some are just surviving, if that’s the right word, there are a lot of challenges and they cannot compete head-to-head with the MNCs. That’s a reality now.” The lack of domestic-owned firms presents a severe obstacle for knowledge spillovers and learning, pre-empting any opportunities for indigenous coupling in the near future.

Lacking personal relations and networks in relevant professions in overseas client markets, entrepreneurs from the Philippines depend on chance encounters, brokers or cost-based competition in online platforms for short-term projects for market-entry. Many of the small domestic-owned firms in the sector occupy a low rung of the value chain, for example, outbound call-centre activities, involving hard-selling and cold-calling. In interviews, domestic-firm managers in the Philippines explained the challenges: unreliable clients, non-payment, scams and a constant struggle to remain in the market. Some even operate in a grey market of home-based self-employed micro-entrepreneurs.³

Large MNCs are able to offer competitive salaries above the minimum wage and additional incentives including bonuses and gadgets upon hiring. The largest private sector employer, with 35,000 staff, is a US-headquartered call centre. This dependency on a single sector, located at the lower-end of the value chain, is questionable as a sustainable long-term development trajectory, given threats of relocation (to lower-cost countries) or automation. To truly benefit from the possibly short-term windfall gains of ITES employment that the Philippines is currently experiencing, it would be prudent to invest these gains into building skills and technological capabilities that contribute to broader productivity within the domestic economy. Domestic firms in the Philippines are largely absent from direct involvement in the ITES sector but are able to capture value from transnational flows of capital through related and

³ Off-shoring is frequently linked to explicitly placing undesirable work out of view from Western consumers. Euphemistically termed ‘content moderation’, the deletion of images from social media that involve graphic violence, torture and (child) pornography is a particularly emotionally strenuous job that has been off-shored to the Philippines (Roberts 2019).



supporting industries (real estate, telecommunications, retail, restaurant-franchises, etc.) without necessarily investing into increasing productivity or driving innovation. A move towards higher-value-added functions and increased power positions within global production networks would require strong domestic firms and government support with strategic intent to move up into higher-rent-generating sectors.

Late 2000s Onwards: Kenya

Our final case represents an ongoing attempt by a new entrant to integrate into ITES: Kenya. Although no reliable current statistics exist as to the sector's economic contribution, it is estimated to consist of 30 to 50 firms and continues to be discussed as a viable driver of future growth. Initially, several small-scale Kenyan firms began to source informal work from online platforms, which drew the attention of larger investors and officials, aware that underwater fibre optic internet cables were about to substantially lower connectivity costs. A commissioned McKinsey study identified Kenya to be internationally competitive in low-cost customer service for European and North American markets (Kariuki 2010). Like the Philippines, Kenya was said to benefit from rising costs in India and from large numbers of unemployed English-speaking high-school and university graduates in a favourable time zone (Waema 2009). Yet, key actors underestimated the difficulties of accessing lucrative international contracts and underappreciated the unique first-mover advantages of incumbents India and the Philippines.

The government's initial strategy sought to build up domestic-owned export-oriented firms by creating a positive and enabling environment through investments into large-scale internet infrastructure, the provision of a bandwidth subsidy to aspirant domestic firms, the commitment to build an ITES park in an export-processing zone outside of Nairobi, the development of basic training programs and the establishment of an autonomous government unit—the Kenya ICT Board—to globally market the Kenyan destination and develop incentives for foreign investors and clients (Government of Kenya 2007). Within the private sector, a Kenyan BPO and Contact Centre Society formed in 2007, in part modelled on NASSCOM and BPAP.

Public support was given to all aspirant domestic firms and was not targeted nor was performance monitored in a systematic way. Nevertheless, some interviewees felt preferential treatment had been given behind the scenes, and ultimately, these accusations led to the dissolution of the business association (which later re-emerged as a new body in 2012). The inability or reluctance to channel support to specific capable domestic firms made it difficult for the government to protect the country's reputation.

Accordingly, a number of inexperienced firms took advantage of policies but were not able to perform. In a 2013 focus group, managers of prominent ITES firms stressed both the need for more targeted and tailored support and the need for a registration and vetting portal to establish standards and guard against inexperienced new entrants. One participant claimed: "If you get exploited, it is either because you don't understand, you do not have the right skills or you are so desperate for work



that you take it on anyways". Managers stressed that outbound customer service and outcome-based contracts were not profitable, and yet, inexperienced actors fell prey to intermediaries passing on unprofitable work. Often these intermediaries were Indian firms or consultants potentially seeking out low-cost destinations as part of their own value chain strategies. Others got the 'right' kind of work but then failed to deliver due to lack of tacit skills and appropriate management practices. India's long history in the sector has allowed its firms to build up, and then protect, important tacit knowledge, personal relationships and reputational capital, which allowed its firms to separate out and subcontract less-valuable work to less-experienced actors.

These problems led Kenyan stakeholders to shift attention away from international clients towards domestic and regional clients, particularly large multinational firms operating within East Africa and government institutions (Mann and Graham 2016). Some firms also tried to integrate into the 'impact-sourcing' market through re-branding and changing their employment practices to hire categories of disadvantaged workers fulfil corporate social responsibility contracts. Finally, domestic firms also began to push the government to attract foreign ITES firms from India and the Philippines to help mend Kenya's reputation problem, thus attempting, in some ways, to replicate the Philippines' model. These varied strategies signal the acute difficulties Kenya faced in trying to integrate even at the level of structural coupling at this late stage in the global network's evolution. Simply put, market access is not mediated and accessed through technological infrastructures alone but depends on governance relations embedded in global production networks.

In recent years, the approach has adapted further in potentially more ambitious or perhaps more pragmatic ways. The East African region is becoming an increasingly lucrative market for multinational firms. It is also undergoing digitalization and financialization, as well as trade harmonization within the East African Economic Community. As the region's economic hub, Kenya is well positioned. This market-seeking potential distinguishes Kenya from the case of the Philippines and offers the potential for functional and indigenous coupling based on regionally specific assets and domestic innovation clusters, although there is a danger of this market-seeking behaviour transferring value out of Kenya as well as in.

Kenya's current enabling policies encompass both high-skilled and low-skilled service delivery. Stakeholders have made the case for Kenya to position itself in activities such as social media, software and mobile money innovations through supporting supply side digital training in schools through its digital literacy program, by promoting entrepreneurship programs and by funding incubation hubs and affordable bandwidth (Ndemo and Weiss 2016). However, from fieldwork interviews, managers of Kenyan start-ups expressed the desire to be acquired by a larger foreign firm, a circumstance that might limit the potential for value capture in Kenya. At the lower end, the government has also promoted and begun to train workers to engage in online low-skilled micro-work freelancing for overseas clients. This new approach is perhaps driven by a fear of jobless service growth (Te Velde et al. 2015, p. 5). Yet, such work is predominantly low value and cannot be used to drive productivity elsewhere within the domestic economy.



Fantastical Narratives of Transformation and Narrowing Opportunities for Value Capture in ITES

The present analysis shows just how contingent and contextualized each country's engagement with ITES has been. India's strategic articulation critically depended on the long-term development of a skilled and globally connected workforce and the presence of existing domestic firms able to move into this lucrative sector once a window of opportunity emerged. India's skilled workforce further allowed firms to achieve a favourable cost–capabilities ratio, acquire greater technological capabilities and enhance value at a competitive cost. Its domestic firms were eventually able to develop transnational delivery networks, increasingly asserting governance control over global networks in ITES. In some instances, Indian firms have shed lower-value activities to the Philippines and other countries, while simultaneously moving into higher-end services. However, more recently, they have also attempted to eliminate such opportunities through the use of automation and low-cost labour to train artificial intelligence. The established position of Indian firms within the ITES sector therefore opened up momentary opportunities for new entrants at the lower end of the value spectrum or in specific niches (such as Kenya), yet has also blocked access to the higher-value added functions. Indian firms, thus, orchestrated the formation of a deeper international division of labour. Finally, while India's engagement is strategic, it has led to structural imbalances and aggravated patterns of rural–urban inequality.

The Philippines' strategy of relying on foreign investors enabled access to work opportunities and connections to global buyers and allowed domestic workers to compete in low-value activities on cost with India. Movement into higher-value-added activities, however, has been blocked due to a lack of competitively priced higher skillsets and the lack of domestic firms that might invest into upgrading. Furthermore, domestic economic-political elites in the Philippines benefit indirectly from the ITES sector through their businesses in real estate, telecommunications and tourism, without needing to invest in raising productivity or innovation in the ITES sector. The Philippines current employment windfalls may therefore be only transient.

Kenya's strategy to support domestic firms could be interpreted as an attempt to engage in indigenous coupling and therefore capture value within the domestic economy. However, without the tacit knowledge and global connections of foreign investors, it struggled to even enter the ITES sector. The Kenyan experience reveals both the importance of tacit knowledge from foreign investors as well as the need for coordinated communication and support between the domestic private sector and government bodies to manage performance and reputation. Together the experiences of the Philippines and Kenya suggest that low- and middle-income countries need to balance the attraction of foreign investment and expertise with coordinate support for domestic firms to move into more strategic forms of engagement over time.

Despite this contingent and ultimately unstable evolution of the technology at the heart of the sector, several beliefs and assumptions about the developmental impact of the ITES sector continue to circulate, which are both problematic and persistent:



First, the idea that services sector can allow countries to ‘leapfrog’ manufacturing (e.g. Dossani and Kenney 2007), which has been voiced in relation to India and Kenya. While India has gained a large share of employment and has also upgraded its capabilities in the IT and ITES sectors, the opportunities arise largely for urban highly educated English-speaking graduates and are insufficient to structurally transform the economy without a parallel development of labour-intensive industrialization. Meanwhile, Kenya, a country entering the ITES sector at a later stage, may find it even more difficult to capture technological rents in a context of intensified cost suppression and accelerating automation. ITES—by virtue of its underlying logic of elimination of skill or even human cognition from production—distinguishes the sector markedly from the historical role played by manufacturing in diffusing technological rents through globalization.

Secondly, the assumption that other countries can follow in the footsteps of India (e.g. Paus 2007; Engman 2010; Magtibay–Ramos et al. 2008) and replicate its experiences, has been mainly voiced in relation to the Philippines. The preconditions, sectoral focus and timing all led to a different profile of ITES integration that resulted in structural coupling and the export of voice-based services through foreign firms, making the replication of India’s experiences in the sector unlikely. As Bernard and Ravenhill wrote in relation to the evolution of manufacturing networks in Asia: “production does not migrate across countries in an undifferentiated manner. Production structures differ across time and space depending on local configurations or power, historical trajectories, and the dominant technologies of particular eras... These differences apply not only comparatively to how production differs between places, but also relationally to the way production links places together” (Bernard and Ravenhill 1995, p. 184). This historical experience effectively undermines the idea that new countries will be able to re-create the same conditions for learning and upgrading as earlier entrants into a production network, as the technology and system of production themselves have changed. Indeed, new entrants enter precisely through dependent relationships. Established (Indian) ITES firms and workforces have not vacated the bottom rungs of the technology ladder—they effectively re-constitute production, retaining marketing and innovation capabilities while off-shoring low-value simplified processes to relatively lower-cost labour elsewhere.

Thirdly, especially pronounced in the case of Kenya, is the belief that the main barrier to ITES is internet connectivity (Graham et al. 2015). However, what this focus on connectivity as market access neglects is the hierarchical nature of production networks, not just within ITES but within the global economy more generally (Ouma et al. 2019).

Our analysis of the global ITES sectors’ articulation and emergent trajectories in these three countries challenges these discourses and assumptions about the sector as a driver of economic transformation and development. We have shown how the sector has constantly evolved, with past developmental opportunities linked to contingent circumstances within each country; moments of technological change, historical legacies and shifting policy contexts. Furthermore, as a sector defined by progressive commodification and knowledge concentration through constant innovation and firm restructuring, it is unlikely that ITES will offer the same developmental opportunities that manufacturing once did.



Conclusions

By juxtaposing the experiences of three countries with ITES with the narratives around economic transformation, we have painted a more sober picture of the economic development potential of the sector. This analysis demonstrates that the developmental opportunities presented by ITES are both contingent and potentially limiting. First, while technological progress in the past meant that global service value chains could be unbundled and services delivered from more far-flung places, contemporary technological progress focusses on automation, potentially leading services to be delivered not by humans located off-shore but by robots ‘no-shore’ (Peck 2017). Second, the rise of the platform economy and crowdwork mediated through platforms leads to a deeper dissolution of firms and even more fragmented piece-meal work, potentially limiting the opportunities for upgrading, economy-wide learning and spill-over effects. In place of a focus on employment and value creation, our approach recommends that low- and middle-income countries understand developmental opportunities through the prism of transformation and value capture. Whereas the service off-shoring and outsourcing sectors’ founding rationale has been labour arbitrage, automation and crowdwork developments may entail that capturing the gains of ITES labour for structural change may be even more difficult in the future.

Literature on global value chains and production networks has drawn our attention to the power of lead firms and the ways in which power relations are institutionalized within global service production networks. New entrants do not face the same conditions as first-movers because those earlier entrants have in fact reconfigured the sector to capture more value. Finally, we further argue that a focus on domestic firms and value capture needs to be combined with attention to the position of workers and their opportunities for socially transformative development. The three case studies have highlighted several negative labour implications arising out of the creation of an ITES sector aimed at servicing markets in the global North. Such an articulation has provided primarily insecure, casual and lowly remunerated employment options, embedded in dependent production arrangements. While such jobs may initially appeal to regions with high unemployment, such opportunities should not be celebrated as necessarily offering a transition towards a ‘knowledge-based’ economy.

The present study has teased out some of the important questions and trade-offs policy-makers need to be aware of with respect to ITES development through the concept of ‘strategic coupling’. A potential limitation of this qualitative study is its inability to quantify how much value has been captured or exported in each of the three cases, which comparative quantitative studies on ITES may be able to reveal in the future. Moreover, future research could also focus more attention on the interactions between export-oriented services and efforts to boost domestic productivity and value capture within domestic firms and workforces. Overall, the types of employment opportunities created, where and for whom need to be critically analysed to assess the socio-spatial regional outcomes. Thus, ITES do not offer a silver



bullet for transformative development but need to be strategically incorporated into broader economic development policies.

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