Maastricht University

UNITED NATIONS UNIVERSITY

UNU-MERIT

Working Paper Series

#2017-012

Pathways for capacity building in heterogeneous value chains: Evidence from the case of IT-enabled services in South Africa

Charlotte Keijser and Michiko Iizuka

Maastricht Economic and social Research institute on Innovation and Technology (UNU-MERIT)
email: **info@merit.unu.edu** | website: **http://www.merit.unu.edu**

Maastricht Graduate School of Governance (MGSoG)
email: **info-governance@maastrichtuniversity.nl** | website: **http://www.maastrichtuniversity.nl/governance**

Boschstraat 24, 6211 AX Maastricht, The Netherlands
Tel: (31) (43) 388 44 00

UNU-MERIT Working Papers
ISSN 1871-9872

Maastricht Economic and social Research Institute on Innovation and Technology
UNU-MERIT

Maastricht Graduate School of Governance
MGSoG

UNU-MERIT Working Papers intend to disseminate preliminary results of research carried out at UNU-MERIT and MGSoG to stimulate discussion on the issues raised.

Pathways for Capacity Building in Heterogeneous Value Chains: Evidence from the Case of IT-enabled Services in South Africa

Charlotte Keijser
keijser@merit.unu.edu

Michiko Iizuka
iizuka@merit.unu.edu

Maastricht Economic and Social Research Institute on Innovation and Technology (UNU-MERIT) / Maastricht Graduate School of Governance (MGSoG)

ABSTRACT

The global value chain (GVC) approach has stressed that inter-firm linkages within GVCs can create new opportunities for capabilities formation in developing countries. However, little is known about how firms from developing countries engage and benefit from participation in GVCs of services. Using data collected from 44 interviews of IT-enabled service providers in South Africa, this paper explores how service providers in developing countries build service delivery competence critical to their performance, focusing specifically on the development of human resource management capabilities and domain expertise. Results show that participation in GVCs triggers learning processes for firms that are crucial in building service delivery competence, especially in the absence of a strong national system of innovation. Nevertheless, interactions between actors and institutions within the country, as well as internal firm resources are critical to acquire and adapt foreign-sourced knowledge to the local context. Finally, we find local and regional value chains of IT-enabled services offer additional learning avenues for capability formation and potential pathways into GVCs for domestic firms.

Keywords: Global value chains, regional value chains, system of innovation, organisational learning, IT-enabled services, South Africa

JEL: D830

Acknowledgements: We are grateful to the interviewees in South Africa who agreed to participate in this research. We sincerely thank Micheline Goedhuys and Rene Belderbos for insightful comments and suggestions during the preparation of this paper. The usual disclaimer applies.

Introduction

Various researchers refer to the relocation of services to developing countries as the 'next wave in globalisation' or a 'second industrial revolution' (see Dossani and Kenney, 2007). The offshoring of information technology-enabled services (ITES) has created opportunities for developing countries to insert themselves into global value chains (GVC) of services. The increased interconnectedness of firms through GVCs has spurred debates about the role such transnational networks play in capability building. Existing studies present contradictory views: some state that GVC learning is critical for

developing countries as they are generally dependent on foreign knowledge, whereas others consider firm resources or strong national systems of innovation to be the foundation for learning and innovation in the face of strong global competition (Ernst, 2002; Pietrobelli and Rabellotti, 2011).

Much of this discussion has been based on cases in manufacturing (Giuliani et al., 2005; Humphrey and Schmitz, 2002) whereas learning trajectories in the service sector in developing countries, such as the ITES sector, remain understudied. A review of the literature on outsourcing and offshoring shows that the ability of providers of IT-enabled services to respond to services requirements—defined as service delivery competence—depends heavily on providers' human resources management capabilities and domain expertise (Feeny et al., 2005; Lacity et al., 2012). The current study seeks to understand what type of learning avenues service providers in developing countries use to develop service delivery competence to meet clients' demands.

South Africa has, in recent years, become an attractive offshore destination for ITES and the number of firms engaging with GVCs of ITES has increased. Despite this growth, many small- to medium-sized South African firms struggle to enter GVCs, opting instead to deliver services to client firms in the local and African market, thus connecting them to local value chains and regional value chains. This paper investigates learning avenues for service providers in the South African ITES beyond global value chains. In doing so, it integrates potential sources of learning discussed in the literature (internal firm resources, systems of innovation and GVC learning), while also exploring alternative learning avenues through local and regional value chain participation.

Literature Review

The ITES Sector in Developing Countries as an Entry Point into GVC Participation

The offshoring of non-core business activities from advanced economies to firms in developing countries is said to create opportunities for these firms to be involved in GVCs (Gereffi and Fernandez-Stark, 2011). The relocation of services typically concerns non-core business processes with use of information technology (IT) in the delivery process (e.g. customer relationship management, accounting), referred to as IT-enabled services (ITES) (Gereffi and Fernandez-Stark, 2011; Dossani and Kenney, 2007). According to Massini and Miozzo (2012), current trends show that firms from advanced economies set up captive units in lower cost countries offshore (offshoring) or transfer ownership of the task to a third-party service provider (TPSP) in those countries (offshore outsourcing). The latter is considered an entry point for integration of local firms in developing countries into GVCs of services without having to develop the full range of capabilities of the value chain. Understanding how these firms can participate in GVCs has become an important subject,

considering its potential for job creation, new business opportunities, diversification and sophistication of exports, and access to markets with more value addition (Gereffi and Fernandez-Stark, 2011; Kowalski et al., 2015). Previous studies have focused predominantly on India and the Philippines, considered leading offshore destinations (Dossani and Kenney, 2007). Limited research has been conducted on African countries, yet South-Africa, Ghana, and Kenya have identified the development of an ITES sector as critical for growth and development (see Beerepoot and Keijser, 2015; Mann and Graham, 2015).

Building Service Delivery Competence in the IT-enabled Services Sector

There are three different segments of activities in ITES: information technology outsourcing (ITO), including IT infrastructure management, software development and IT consulting; business processing outsourcing (BPO), including data processing, human resource management and customer relationship management; and knowledge process outsourcing (KPO), including business consulting, marketing research and legal process. These activities range from low value to high value-adding activities covering standardised to more knowledge-intensive activities. Human resources are considered critical in adding value. For each segment of activities, skill intensity is assessed by levels of wages and educational qualifications. ITO involves generic and broad ranges of technical skills from low to high level skills; KPO involves high skills with specialised knowledge; while BPO includes more standardised activities involving low to medium level skills (Fernandez-Stark et al., 2011).

Scholars find that participation in the ITES sector and potential upgrading of services depends on the provider's ability to meet service requirements in different segments (see e.g. Feeny et al., 2005; Bharadwaj and Saxena, 2010; Lahiri et al., 2012; Lacity and Willcocks, 2012). These studies argue that the provider's ability to respond to the client's services requirements, defined as "service delivery competence" (Feeny et al., 2005), requires investment in the development of human resource management capability and domain expertise. Here, domain expertise is defined as a provider's capability to apply and retain sufficient professional knowledge of the target process domain, in terms of its function, industry, as well specifics and idiosyncrasies of the client service (adopted from Feeny et al., 2005). It entails a thorough understanding of the requirements and challenges of different industries in which firms operate, and the client's service and specific requirements (Lahiri et al., 2012). The definition of human resource management capability (HRMC) is adopted from Willcocks et al. (2016), who define HRMC as the provider's ability to identify, acquire and deploy human resources. This reflects the provider's ability to respond to demand for skills, scale up operations, recruitment and training processes, and career development. These studies recognise that other

capabilities—such as IT and relationship management—also influence service delivery competence. However, domain expertise and human resource management capability are considered fundamental, and therefore are central to this research. While their importance is well recognised in the literature, the avenues firms follow to build such competence remains underexplored.

Different Learning Avenues for Capability Building

A review of the literature shows various routes to capability development. First, in the resource-based view (RBV), competitiveness derives from the creation of differentiated and firm-specific capabilities that are determined by the productive use of resources (Penrose, 1959; Barney, 1991). Knowledge is considered one of the most strategically important resources, and is further discussed in the knowledge-based view (Grant, 1996).

Secondly, the national systems of innovation approach highlights the formation of capabilities through interaction between actors (firms, consumers, universities and public organisations) and the importance of national institutions in shaping such learning processes (Freeman, 1995; Lundvall, 1992). Whilst the literature recognises the growing importance of technological and sectoral systems of innovation and cross-border connections (Malerba, 2002; Carlsson, 2006), the influence of national interactions and institutions is considered fundamental in the face of strong globalisation (for discussion, see e.g. Ernst, 2002).

The third strand of literature refers to upgrading (technological) capabilities through participation in GVCs that provide exposure to knowledge and learning opportunities (Giuliani et al., 2005; Humphrey and Schmitz, 2002; Pietrobelli and Rabellotti, 2011). The GVC approach to learning has, until recently, paid limited attention to local conditions (e.g. the local system of innovation) and firms' absorptive capacities that may influence firm-level learning processes. The core assumption however remains that global networks are the enduring base for learning, as developing countries are generally strongly dependent on foreign knowledge (see De Marchi et al., 2015; Ernst, 2002; Morrison et al., 2008).

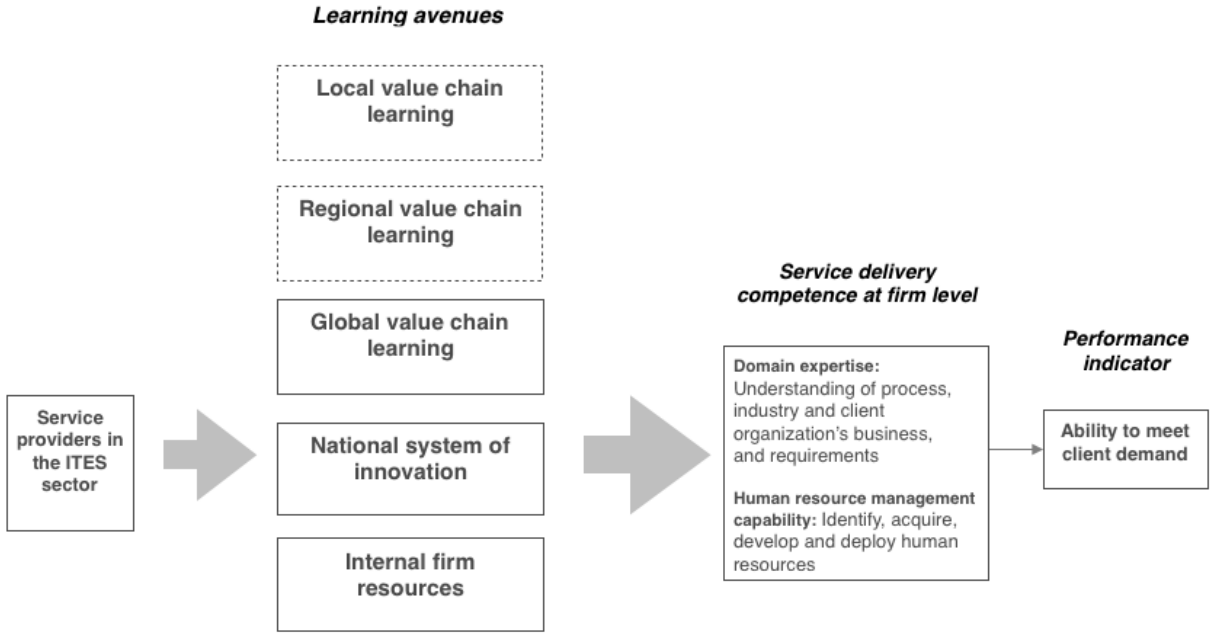
Finally, value chains at the local (national) and regional (supranational) market level, although understudied, are considered potential springboards for domestic firms in developing countries into

global value chains. Local value chains (LVCs) capture the chain of services within a country, whereas in regional value chains (RVCs) a service is provided by a country within the region, often within trading blocs (Banga *et al*., 2015; Bamber et al., 2014; ERA, 2009).

Conceptual Framework

The extant literature suggests that there are alternative avenues for capability development: firm level resources (micro), national systems of innovation (macro), and GVC learning (global). These avenues are integrated into the analysis to capture the complexity of knowledge flows for building service delivery competence, focusing specifically on HRMC and domain expertise (see Figure 1). In addition, participation and learning, in local and regional value chains are explored.

Figure 1: Potential learning avenues for service providers to build service delivery competence



Overview of the South African IT-enabled Services Sector

Since 2006, the South African government prioritised the IT-enabled services sector to mitigate unemployment, a critical challenge in South Africa (Mashalaba et al., 2015). The amount of jobs created in South Africa is relatively limited compared to the approximately one million jobs created in the ITES sector in the Philippines (BPAP, 2015) and 3.5 million in India (NASSCOM, 2015). Nevertheless, the sector has grown rapidly in recent years, particularly in the offshore market, and by the end of 2015 a total of 214,134 jobs were created, of which 67% (142,922 jobs) are for third party

service providers while 33% (71,212 jobs) are in captive operations. The majority (59.9%) of offshore demand for ITES comes from the United Kingdom followed by Australia (22.4%). These countries share historical links, cultural affinity, English language, and similarities in business environment products and regulations with South Africa (BpeSA, 2016). However, compared to the total jobs created, 88% (188,400) of jobs have been generated to service the domestic market, whereas only 12% (25,734) of jobs were created to service offshore markets (BpeSA, 2016). This indicates the importance of the domestic market for business operations.

Underpinning increased growth in the sector are various government incentives introduced to mitigate growth-inhibiting factors, such as the high cost of doing business, lack of required talent, investor support, marketing and experience (Mashalaba et al., 2015). These incentives[1] include an operational grant to providers, conditioned upon actual offshore jobs created and the minimum required score for the Broad-Based Black Economic Empowerment (B-BEEE)[2] regulations (e.g. requiring at least 80% employees to be youth). Incentives are also provided for talent development programmes (e.g. Monyetla Work Readiness Programme) to supplement needed human resources. Other factors contributing to the growth of South African ITES include the weakening of the currency (Rand), firms expanding their delivery capacity beyond traditional offshore destinations such as India and the Philippines (Gereffi and Fernandez-Stark, 2011) and growing demand for ITES in the domestic and regional (African) market. In fact, firms providing outsourcing solutions in the financial services sector in South Africa have already expanded their operations to neighbouring African countries, servicing firms in the African region (Everest Group, 2008). These activities are not well described nor reflected in statistics, except for 40 shared services centres (see Zille, 2015) where business functions and processes from several departments across African countries are grouped together and delivered from South Africa (BPeSA, 2015).

Similar to the categorisation of (Gereffi and Fernandez-Stark, 2011), the sector in South Africa covers activities in various segments, predominantly in customer services, back office processing, and finance and accounting services across industries—the financial, telecom, retail and legal industries (BpeSA, 2016). Business process outsourcing (BPO) is by far the largest segment, consisting of front office services (70%), mainly customer relations services in call centres, and back-office services (30%), such as data processing and payroll processing). Activities in IT outsourcing (ITO) and knowledge processing outsourcing (KPO) are significantly smaller due to lack of skilled workers (BPeSA, 2015). However, legal process outsourcing (LPO), a type of KPO employing approximately 1,350 people in South Africa (Zille, 2015), has recently been identified as a fast-growing niche with potential (Willcocks et al., 2015).

Although BPO generally involves low value-added standardised services, South Africa is well

positioned in high-quality, medium-cost contact centres and back-office services (Willcocks et al., 2015), demonstrating an advantage in high complexity (voice-focused) customer services and expertise in niches (e.g. financial services). This is due to the availability of professional knowledge and tangible and intangible skills, such as adaptability, persuasion, leadership skills, high quality English language skills, neutral accent, and a customer-oriented service culture with cultural affinity to Western markets (IQ business, 2014; Willcocks et al., 2015). Despite such advantages, demand for skills has outgrown the supply of labour in South Africa, and has resulted in a shortage of skills at the managerial and supervisory levels as well as in specialist roles, such as quality assurers, trainers, information analysts, work force managers, and foreign language speaking roles (Knowledge Executive 2014; IQ business, 2014). This puts strains on firms and requires continuous investments in recruiting and training students freshly out of the education system as well as retaining and training existing employees to meet the growing demand for more complex skills (Knowledge Executive, 2014).

The private sector, government, universities, and other public educational providers are not sufficiently coordinated to meet the demand for human resources, constraining the growth of the sector. Sector-specific institutions are currently weak in supporting the development of ITES. While accredited training programmes have been used (e.g. through SETA and industry-specific accreditation) these are still insufficient for the foundational and lower-management sections of business processes and in specialist roles. Standardisation in skills training and certification is needed to facilitate the flow of human resources, but development of its institutional framework is still underway (IQ Business, 2014). These skills-related challenges have recently been appropriately recognised at the industry level, resulting in the implementation of several human resource development programmes. Prominent examples include skills strategies from the Rockefeller Foundation Impact Sourcing Academy, Business Process Enabling South Africa (BpeSA) and Harambee—all aiming at increased coordination between public and private stakeholders across the industry. Despite recent public-private partnerships in developing human resources, these efforts are at an early stage, while human resource constraints pose an immediate risk to the growth of the sector (IQ Business, 2014; industry stakeholder interviews, 2016).

Methodology

Employing a qualitative case study approach (Yin, 2014), the case of the South African ITES sector is investigated. This sector currently consists of 620 firms of which 455 are captive units and 165 are third party service providers (TPSP). This study focuses on TPSPs for two reasons: first, their ability to generate employment and business opportunities is critical for South Africa; and second, their

potential in revealing avenues of learning that are not confined to the parent firm as expected in captive units.

Semi-structured interviews were conducted with CEOs and managers of 44 TPSPs during multiple field visits (February-March 2015; January-April 2016; October 2016) in Cape Town (Western Cape region, 20), Johannesburg (Gauteng area 15) and Durban (Kwazulu Natal, 9) (this sample is further described in the next section). Firms are selected using the snowballing technique given the absence of information on firms in this sector. In several instances, more than one representative from the same firm was interviewed— generally managers from operations or those dealing with human resources to gain a more detailed overview of the firm incorporating different perspectives. In addition, interviews with 35 industry stakeholders (such as representatives from industry bodies, governmental organisations, training providers, client firms, captive service providers, industry consultants, academics) were conducted. To ensure confidentiality, individuals and organisations interviewed have been kept anonymous.

Results

Heterogeneous Value Chains of ITES

Close examination of the sample of firms demonstrates their heterogeneous nature in terms of characteristics (ownership, size and activities) and value chain participation. The location of the client depicts the end market of the service—hence giving rise to different value chains (local, regional and global value chains). Table 1 shows that service providers based in South Africa cater not only to the domestic and offshore market, integrating them in LVCs and GVCs, respectively, but also to the sub-Saharan African regional market (e.g. Kenya, Botswana, Mozambique), connecting them to RVCs. Various firms are engaged in multiple markets.

Table 1: Description of firms in heterogeneous value chains

		Market location of client					
		Domestic (LVC) (15)	Domestic & African (LVC, RVC)(5)	Domestic & offshore (LVC, GVC)(11)	Offshore (GVC) (11)	Domestic, African & offshore (LVC, RVC, GVC) (2)	
Owner-ship	South African	11	4	3	2	1	21
	Foreign	4	1	8	9	1	23
Size (employees)	Small (< 200)	8	0	3	3	1	15
	Medium (200-500)	5	1	4	1	-	11

	Large (>500)	2	4	4	7	1	18
Activity	Service segment	BPO (9)	BPO (4)	BPO (5)	BPO (8)		26
		BPO/ITO (4)		BPO/ITO(1)	BPO/ITO(1)	BPO/ITO(1)	6
			BPO/KPO(1)	BPO/KPO (3)	BPO/KPO(2)		6
		ITO (2)				ITO(1)	3
				KPO (2)			2

Notes: BPO: Business processing outsourcing, ITO: Information technology outsourcing, KPO: Knowledge processing outsourcing, LVC: local value chain, RVC: regional value chain, GVC: global value chain.

Firms in LVCs (15) are predominantly small (8) South African firms (11), involved mainly in BPO activities (customer services and back offices) (13), with some diversifying into ITO (4) (software development and IT infrastructure management). Those operating only in GVCs (11) are mostly large (7), foreign owned firms (9), operating in BPO (mainly customer services), but with activities also spreading to other segments, particularly in business analytics and in legal services. Nearly all firms in RVCs (7) started in LVCs and expanded into RVCs (5) or to RVCs and GVCs (2), and are also involved in BPO services, yet more often they perform low value-added activities such as data processing and payrolls. Two South African firms in both LVCs and GVCs and a firm participating in all markets started in LVCs first, claiming that this allowed them to build capabilities needed to expand into the global market. Foreign firms in both LVCs and GVCs (8) and in all markets (1) started in GVCs first before identifying opportunities in the local market, hence showing similarities to characteristics of firms in GVCs only.

Nearly all firms operating only in the domestic market express their desire to expand into global markets, but are unable, due to absence of financial and human resources, established brand, scale and networks to explore business opportunities in the global market. A manager from a UK-based client firm confirms this, emphasising a preference for large and well known global service providers due to a perceived higher risk inherent to contracting smaller domestic firms lacking scale and a strong reputation.

Capability Requirements in Different Value Chains of Services

The majority of firms in LVCs stress that to compensate for the lack of scale and lesser reputation they seek to offer high quality services, through offering customised services with increased flexibility in delivery. This requires multi-skilled employees that can comprehend the customer's varied and specific needs accurately and execute them flexibly. Offering such tailor-made solutions requires domain knowledge in terms of sufficient understanding of each business, specific needs and

different industries that clients operate in. The diversification of services by offering both business processes as well as IT services, requires the recruitment and training of employees ranging from high school graduates and vocational-trained employees to university graduates. Furthermore, to demonstrate service quality and build a reputation, firms seek to comply with industry standards, including international standards that are arguably more demanding compared to domestic market standards. The Broad-Based Black Economic Empowerment (B-BBEE) regulations have special relevance to firms operating in the domestic market and add to human resource requirements. Delivering services in the public sector or conducting business with firms in South Africa that seek to maintain high B-BBEE scores requires providers to comply with all regulations.

Firms in GVCs perform knowledge-intensive processes that require higher skills, typically university degrees and expertise in the specific process and industry. The skill requirements for customer services are similar to the domestic market, while in addition, emphasis is put on the ability of providers to represent clients' brands. This often requires them to operate with the same technology, possess similar IT skills, and comply with international standards and skills/qualifications, as well as secure international experienced workers and employees with English language skills and neutral accents. In addition, behavioural competence to effectively interact with customers is critical to the quality of the service. Such skill requirements demand significant investments in recruiting and training of employees. Furthermore, the ability to represent each client's brand is highly dependent on the provider's knowledge, in terms of the client's operational process, goals, as well as its business culture. Simultaneously, these providers, especially foreign firms, emphasise the importance of cultural understanding and nuances of the locality where the provider and its employees reside for better service delivery. They consider dealing with social and cultural sensitivities in managing employees, and adapting foreign knowledge (e.g. newest foreign technology and expertise) to the South African context as critical to successful service delivery.

Finally, as discussed, firms in regional value chains generally perform lower value-added activities, such as data processing and payroll activities, where intangible skill sets—as discussed in case of customer-focused service delivery—become less paramount, with literacy, computer skills and foreign languages more pronounced. In addition, an understanding of the foreign market environment and culture (i.e. customs and norms) is important to the quality of the service and to establish a relationship conducive for knowledge sharing on client specific needs, processes and industry. Respondents stress that while the regional market is perceived to be similar to the South African market, differences in business practices, culture and languages exist, thereby influencing the management of human resources.

Sources of Learning for Capability Building in Heterogeneous Value Chains in ITES

The sources of learning critical to service delivery competence are explored for each firm from the sample and summarised in Table 2. This includes the learning avenues discussed in the literature review, here referred to as learning avenues at the *firm level* (internal resources), national level (the national and industry-specific set of regulations, institutions, and interactions within South Africa, including client learning in LVCs), and at the global level (institutions and actors located in offshore markets, including GVC client learning). In addition, the *regional level* indicates actors and institutions located in the regional market. Interview results show that all avenues of learning were exercised in developing and upgrading service delivery competence, while showing differences across the types of firms and value chain participation. To summarise the results, firms are grouped into LVCs, RVCs, and GVCs. Partly due to difficulties in disaggregating firms operating in multiple chains, and because these firms show similarities to firms in either LVCs or GVCs, firms operating in both LVCs and RVCs are grouped into LVCs; firms in LVCs and GVCs are categorised as GVCs, and firms in all markets are grouped into GVCs.

Table 2: Sources of knowledge for developing service delivery competence

Learning avenues	*Type of value chain participation*		
	GVC	**LVC**	**RVC**
Firm level (internal resources)	- Large sized - Standards (e.g. ISO 9001, information security and certified skills training) MD/CEO characteristics: - Foreign (experienced) management and experts - Previous international work experience	- Small sized - Qualifications (e.g., ISO 9001, information security, moderate use of certified skills training, lack of industry specific institutions) MD/CEO characteristics: - Previous (international) work	- Large sized - Qualifications (e.g., ISO 9001, information security, moderate use of certified skills training) MD/CEO characteristics: Network (business specialists, potential clients) in African region

	In-house training programme/academy Internal research and development Employee learning Corporate group - Face to face interactions, reports, meetings - Replicate tried and tested strategies - Exchange employees, training on business processes, assistance in start-up operations - Group standards for training and development employees	experience - Formal and informal networks - Entrepreneurial traits: risk-taking behaviour, innovation driven In-house/employee learning Internal research and development	In-house training programme/academy Internal research and development Employee learning Corporate group, similar to GVC firms used for accessing and developing: skills, standards, previous experience and demonstrated capabilities
Macro level (NSI)	Government incentive policies (strong) - DTI; BPS incentive, Monyetla programme Industry body support (strong) - Facilitating transfer of foreign skills into South Africa - Knowledge-sharing platform Interactions - South African individuals / South African management - Local firm (B-BEEE driven) - University (moderate) - Mobile personnel Mergers & acquisitions of South African entities External training and recruitment agencies (strong) (Employment) analytics/consultancy (strong)	**LVC client learning** - Face to face interactions, reports, conference meetings - Pressure to adhere to standards (moderate) - Training of employees (moderate) **Non-client learning** - Individuals in industry (competitors, former colleagues) -Mobile personnel -Benchmarking local competition -Data analytics/consultants (moderate) -External recruitment and training organisations (moderate)	Similar to firms in LVCs, low institutional policy support for firms. Slightly more local interactions observed, particularly with recruitment and training organisations and consultancy
Global level (GVC learning)	**GVC Client learning** - Face to face interactions, reports, conference meetings - Pressure to adhere to standards - Pressure to represent client's brand - Adoption technological systems and skills - Expats from client firm: set up operation, training local staff by client firm - Employee provider at client site offshore **Non-client learning** Foreign business experts (e.g. management) Consultants Business development team Analytics & academics Market competition/Benchmarking international best practices	Indirect exposure to GVC learning: - Collaboration between local service provider and foreign service provider (mainly B-BEEE driven) - International mobility of personnel - Market competition by foreign firms in domestic market (drives learning and adoption of international standards)	Indirect exposure to GVC learning, similar to firms in LVCs
Regional level (RVC learning)			**RVC client learning** - Face to face interactions, reports, conference meetings - Pressure to adhere to standards (moderate) - Training of employees (moderate) - Pressure to understand foreign business context and culture (strong) **Non-client learning** local business specialists, consultants, local suppliers, partnering/mergers and acquisitions with local firms

Avenues for Capability Building for Firms in GVCs

Global networks provide knowledge in areas such as products and processes (e.g. technologies used to support service delivery), client-specific requirements and market trends, international work experience, as well as avenues to develop human resources; for instance, through accessing foreign managerial and specialist skills. Client firms play a key role in knowledge diffusion, through standards that pressure providers to learn and upgrade services, through close collaboration, and by

exchanging and training personnel. Active information sharing takes place between clients and providers in the form of business meetings, manuals, reports, training and face-to-face visits. Frequent face-to-face interactions are considered particularly effective for the transfer of tacit knowledge (e.g. on business culture, work ethics) and embodied skills. Nearly all service providers in GVCs received a team of expats from overseas clients to transfer skills and process-related knowledge that helped providers kick start operations and upgrade services. For instance, several providers have adopted technological systems used by the client firm as well as working methods. Such knowledge sharing is motivated by pressure for service providers to adhere to more advanced standards set by offshore clients and represent their brands. Learning avenues for building domain expertise and HRMC other than through client interactions include interactions with suppliers of technology, international business experts, foreign business associations, and the hiring of foreign management and other employees from offshore markets.

Simultaneously, firms operating in global markets source knowledge at the local level and benefit from the local system of innovation in their capability building efforts. South African governmental agencies, industry bodies, consultants, educational institutions, recruitment and training organisations, and other industry stakeholders assist firms in HRMC building and acquiring domain expertise. For instance, industry bodies functioning as intermediaries between providers and clients and other industry stakeholders, act as platforms for the development and dissemination of sector-specific knowledge. Furthermore, they assist providers in accessing government incentives and support for building human resources and for getting permits to source foreign skills. Institutions simultaneously drive service providers to source and develop human resources locally by providing, among other things, access to incentive schemes conditioned upon the B-BBEE to promote hiring of local employees. The hiring of foreign employees is also conditioned upon the transfer of foreign skills to the local labour force. There were also cases where foreign firms in GVCs cooperate with South African service providers, suppliers and consultants to obtain a higher B-BBEE score. Regardless of institutional drivers, foreign providers also emphasise reliance on South African employees in customer relations' services as they demonstrate so-called 'emotional intelligence', i.e. the ability to understand customers and to extract the important issues deriving from conversations to provide high quality customer service. Furthermore, local suppliers, such as recruitment and training providers are extensively used in sourcing skills as well as information regarding industry trends and the needs of local employees. Particularly, foreign firms claim to rely on local actors—South African (based) individuals and organisations, mergers and acquisitions, hiring of local managers, specialists, consultants etc.—to acquire tacit knowledge about the local environment needed to adapt foreign knowledge (e.g. new processes, strategies and technologies) to the local context and absorptive capacity of employees.

Finally, internal resources of firms have significant influence on service delivery competence. Financial resources are required to invest in recruitment processes, provision of career paths and environments of learning. In fact, many firms that participate in GVCs have in-house training programmes and so-called academies to offer skill development and learning trajectories to their employees. Similarly, nearly all firms in GVCs are connected to a global corporate network (i.e. a parent company), which facilitates mobilisation of human resources internally within the family firms. The ability to tap into prior experience and "tried and tested" strategies within such corporate networks is particularly emphasised as critical in building process and industry expertise. For South African firms in GVCs, a majority of which do not have such corporate networks, internal firm resources such as managers' previous work experience, industry-related knowledge and personal network are pivotal to effectively manage human resources and develop domain expertise. In fact, among six South African firms participating in GVC, two managed to immediately obtain offshore contracts, mainly due to existing networks with clients offshore and manager's prior international work experience. The other firms started in LVCs allowing them build HRMC and domain expertise via client learning and internal firm efforts, as well as expand their client base, and strengthen their networks and reputation amongst others, before entering GVCs.

Avenues for Capability Building for Firms in LVCs

Firms in LVCs are, in general, not directly exposed to learning mechanisms from global networks. Small South African firms argue that they have insufficient resources to hire foreign workers and lack networks to source global knowledge. However, examples of interactions between foreign and South African service providers, driven by B-BBEE regulations, are documented. Interviewees state that although the regulations have the potential to develop local enterprises, this has, in practice, not created significant business opportunities for local firms, due to reasons such as conflicts of interest and lack of implementation. In fact, more indirect linkages exist between these firms (e.g. competition, mobility of personnel), allowing local firms to capture internationally experienced and skilled workers and learn about international service requirements and market trends.

Service providers in LVCs (particularly South African) argue that while they rely more heavily on local networks for developing domain expertise and deepening the HRMC, they have limited interactions with actors in the country (industry bodies, educational and training organisations etc.) that could assist in capacity building. An exception is learning from South Africa-based clients (i.e. client learning in LVCs), about specific business needs and processes in focus; however, such avenues are not extensively used for the transfer and development of skills, as in the case of GVC client-learning. Explanations given for this include scarcity of human resources locally and lower standards set in the domestic market. Furthermore, respondents point to a lack of public support for targeting small-scale enterprise development, development and adoption of standards, and accessing knowledge

platforms, networks and financial incentives. Respondents argue that as current government incentives prioritise attracting foreign direct investment and job creation linked to offshore markets, limited attention and resources are given to firms active in LVCs, especially South African and small firms.

Weak or missing local interactions and institutions to support building service delivery competency in LVCs explains the heavy reliance firms place on internal resources. As a CEO from a domestically owned small-sized firm explains: "*The local industry does not get much recognition and to acquire local help there is a lot of red tape. Applications for government facilities are challenging for SMEs (small and medium enterprise). There are no grants given to firms in the domestic market like to those in export markets. You need to be innovative rather than look for help. You don't have time to wait and try."* Many managers claim to rely on their personal and business relations with individuals in the ITES industry (e.g. competitors, (former) colleagues, employers, and clients) to recruit people, as well as access information about business processes, opportunities and market trends. Internal learning is emphasised through experimenting with new business processes, technologies and through promoting knowledge sharing within the firm. CEOs and managers claim to actively interact with employees to gain their trust and understand what motivates them to produce an environment conducive for learning, and to retain staff. Despite reliance on the above examples of internal resources and capabilities, in general, most firms argue to be constrained in resources, and hence, take longer to build capabilities and expand in size. This is different from firms active in GVCs, which are often richer in resources and receive more industry and government support.

Avenues for Capability Building for Firms in RVCs

Firms in regional markets show similarities to firms in the local market, demonstrating limited exposure to global knowledge in offshore markets, and fewer interactions locally compared to firms in GVCs. However, as demonstrated, firms in RVCs are larger in size and more often connected to corporate groups. Issues of resource constraints as reported in the case of most firms in the domestic market appear to be less apparent in the case of firms in RVCs, which helps explain why they make slightly more use of external support, such as training providers. Further, firms operating in all three value chains show similar characteristics to firms operating in GVCs: a strong use of both local and global learning avenues. In addition, RVC participation has exposed firms to knowledge, residing in actors and institutions at the regional level, generally in client location. Here, learning avenues include client firms, local business specialists, consultants, local suppliers, and mergers and acquisitions with local firms. In contrast to GVC learning, interactions with clients in the African region do not convey much operational knowledge about the targeted business process, due to more standardised activities (e.g. data processing, payroll activities) as well as lower standards compared to the global market. This generates fewer effects in terms of accessing and upgrading skills; however,

firms do argue that they build up experience and knowledge about conducting business in a foreign market environment. Participation in RVCs thus provides an additional learning avenue, and allows firms to continuously develop internal resources and capabilities to further build HRMC and domain expertise, as well as gain experience, grow the client base and strengthen reputation. Similar to firms in LVCs, such capabilities are needed to expand their operations and potentially integrate into GVCs. Four South African firms out of the six operating in RVCs, started in LVCs before operating in RVCs, whereas the two other firms expanded their service delivery from the local to the regional market, and subsequently to the global market.

Discussion: Learning Mechanisms Beyond Global Value Chains

The previous sections demonstrate differences in types of firms (ownership, size, resources) and in market orientation (local, regional and global value chains), suggesting substantial complexity in the ways service providers build a service delivery competence in the South African ITES sector (see Figure 2). This section summarises the two main findings and their implications for the future development of the South African ITES sector.

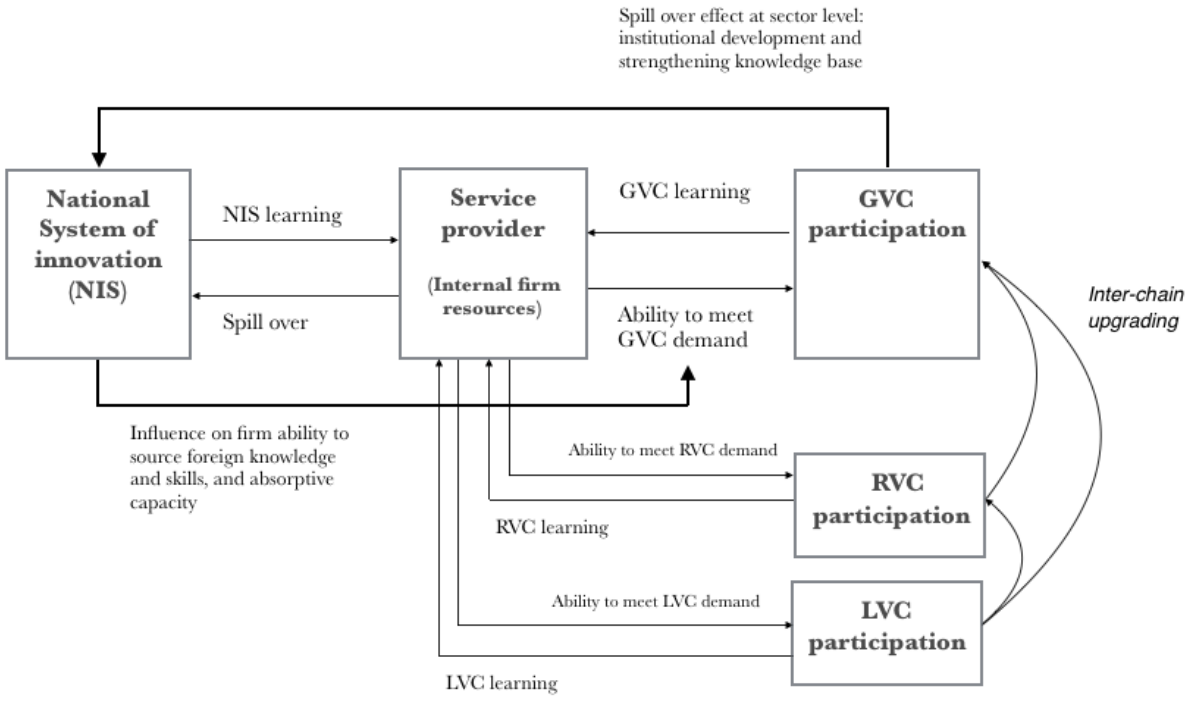
1) *A combination of firm resources, the national systems of innovation and GVC learning for capacity development*

Participation in GVCs triggers learning processes for firms that have, in the absence of a strong national system of innovation, proven to be essential in building a service-delivery competence. Nevertheless, interactions between actors and institutions within the country remain key for developing HRMC and obtaining knowledge, and are critical to acquiring and adapting foreign-sourced knowledge accordingly. Hence, there is, complementarity of global and local-sourced knowledge in building competence in service delivery.

In fact, an interaction effect is found between the system of innovation and GVC learning (see Figure 2). Firm participation in GVCs can create knowledge spillover to the rest of the industry to possibly strengthen innovation systems. Examples include the indirect exposure of local firms to globally sourced information and skills, expanding institutional developments, and strengthening of the local knowledge base. For instance, international standards for skills in ITES have stimulated the development and use of skills-related standardisation and accreditation across the industry in South Africa. This has recently led to the introduction of a skills certification specific to the ITES industry, adopted from the UK. Local institutions, particularly the B-BEEE regulation that aims to promote

knowledge transfer from foreign to local employees, if properly implemented and enforced, can further encourage knowledge spillover. While GVC learning and the system of innovation influence firms' abilities to develop service delivery competence, internal firm resources play a relatively large role in overcoming weaknesses in the system of innovation to develop capacity to enter into—and hence learn—in GVCs.

Figure 2: Learning avenues for building service delivery competence in the South African ITES sector



2) LVCs and RVCs as learning mechanisms for capacity development and potential participation in GVCs

The findings of this research are largely in line with earlier claims made in the literature on the importance of foreign knowledge for developing countries that typically lack a strong knowledge base (see Ernst, 2002; Morrison et al., 2008). However, the South African case shows that currently, firms with strong internal resources (mostly foreign firms) manage to insert in GVCs directly where they benefit from GVC learning, whereas most local firms, due to lack of support and internal resources, are excluded from GVC participation and learning, and thus seek capacity building in LVCs and RVCs. Compared to firms in GVCs, there are fewer local and global interactions that facilitate knowledge flows and lower institutional support observed in the case of firms in LVCs and RVCs, explaining their reliance on (relatively less developed) in-house resources and capabilities. Some exceptions exist for firms in the regional market, which exhibit more firm-level resources compared

to firms only active in the local market, and can gain experience in operating in foreign market environments. Both the engagement in LVCs and GVCs offer different learning spaces than that of GVCs, showing less immediate learning effects in terms of the transfer of human resources and product knowledge. Nevertheless, they are considered an avenue where capabilities can be gradually built, which may eventually allow more firms to move into GVC. This provides evidence for the assertion in earlier studies that regional value chains can serve as possible playing fields for capability development and a springboard into GVCs, particularly for firms lacking capabilities to meet the typically more advanced standards in the global market (Bamber et al., 2014; ERA, 2009).

While this sample includes South African firms that have used LVCs and RVCs for inter-chain upgrading to GVCs, most firms argue that resource constraints prevent them from participating in GVCs. While global value chains can provide indirect knowledge flows to firms in local and regional markets, a stronger innovation system is needed (e.g. industry-developed standards and incentives for SMEs) to assist these firm in the process of capacity building. Current government policy of ITES prioritises incentives to firms who are in GVCs, which are usually foreign and large in scale. This makes sense as the short-term is strategy to generate employment and economic impact; however, to develop local capabilities in the long run, the focus should also be placed on firms in LVCs and RVCs as these two chains can provide a space for learning for South African small to medium firms.

Conclusions

The South African ITES sector is relatively small, but has expanded rapidly in recent years, particularly in response to increased demand from offshore markets. This is further encouraged by the government identifying this sector as a priority to generate employment. However, increased demand coupled with weaknesses in the innovation system has resulted in a shortage of human resources, putting constraints to the growth of the sector given the strong reliance on human resources to provide quality services.

Strategies to build capabilities in human resource management and in domain expertise differ across firms depending on the ownership, size and service activity, and their heterogeneity in value chain participation. First, findings show that global value chains create learning avenues for firms, particularly essential in the face of weaknesses in the system of innovation. However, GVC learning is not a substitute for the local system of innovation; rather, the latter has proven critical to operating in South Africa and to acquiring and adapting foreign knowledge to the local context. As such, GVC learning and the national system of innovation are found complementary and interacting in capacity

building. Secondly, the South African case presents a different picture from the mainstream literature on the current wave of outsourcing/offshoring, which focuses mainly on firms' integration into GVCs (see Massini and Miozzo, 2012; Oshri et al., 2015; Gereffi and Fernandez-Stark, 2011). Our study demonstrates that the majority of service providers, and in particular South African owned firms, operate in local and or in regional value chains. Participation in these value chains is important as it could be a pathway to the continuous, yet gradual, building of competence, expansion of the scale of business activities, and potential upgrading into GVCs.

This research contributes to a better understanding of the complexity of capability building and learning by ITES providers in developing service delivery competence. We encourage future research to further explore learning processes and capability building to understand the antecedents and performance effects of global value chain participation by firms in less developed countries.

Notes:

1. BPS schemes in 2007-2011, revised in 2011-2014 and the extended BPS scheme 2014 to 2019
2. The B-BBEE Act of 2003 was issued with the specific purpose of enhancing the equal participation of previously disadvantaged communities, targeted to assist coloured people and women of all races in the South African job market (Mashalaba et al., 2015)

References

Bamber, P., Fernandez-Stark, K., Gereffi, G., and Guinn, A. (2014) Connecting local producers in developing countries to regional and global value chains. OECD Trade Policy Papers No. 160. Paris: OECD Publishing. doi: 10.1787/5JZB95F1885L-EN.

Banga, R., Kumar, D., and Cobbina, P. (2015) Trade-led regional value chains in sub-Saharan Africa: Case Study on the Leather Sector. Commonwealth Trade Policy Discussion Papers No. 2015/02. London: Commonwealth Secretariat. doi: 10.14217/5JS6B1L2TF7F-EN.

Barney, J. (1991) Firm resources and sustained competitive advantage. Journal of Management 17(1): 99–120. doi: 10.1177/014920639101700108.

Beerepoot, N. and Keijser, C. (2015) The service outsourcing sector as driver of development: The expectations of Ghana's Ict for Accelerated Development Programme. Tijdschrift voor Economische en Sociale Geografie 106(5): 556–569. doi: 10.1111/tesg.12122.

Bharadwaj, S. and Saxena, K., B. (2010) Service providers' competences in business process outsourcing for delivering successful outcome: An Exploratory Study. Vikalpa 35(3): 37-54.

BPAP (2015) IT-BPO Road Map 2011–2016, http://www.ibpap.org/about-us/it- bpo-road-map-2011–2016.

BPeSA (2015) Key indicator report 2014/2015. BPeSA, South Africa, https://www.bpesa.org.za/wp-content/uploads/2015/06/BPeSA-Key-Indicator-Report-2014.pdf.

BPeSA (2016) Key indicator report 2015/2016. BPeSA, South Africa, http://www.bpesa.org.za/wp-content/uploads/2015/12/KIR.pdf.

Carlsson, B. (2006) Internationalization of innovation systems: A survey of the literature. *Research Policy*, 35(1): 56–67. doi: 10.1016/j.respol.2005.08.003.

De Marchi, V., Giuliani, E., and Rabellotti, R. (2005) Local innovation and global value chains in developing countries. UNIDO/UNU□MERIT background papers for the UNIDO, Industrial Development Report 2016: IDR 2016 WP 1.

Dossani, R. and Kenney, M. (2007) The next wave of globalization: Relocating service provision to India. World Development 35(5): 772–791. doi: 10.1016/j.worlddev.2006.09.014.

ERA (2009) Developing AFrican Agriculture through regional value chains, United Nations Economic Comission for Africa Addis Ababa, Ethiopia, http://unctad.org/en/PublicationsLibrary/webditc2016d4_en.pdf.

Ernst, D. (2002) Global production networks and the changing geography of innovation systems. Implications for developing countries. Economics of Innovation and New Technology 11(6): 497–523. doi: 10.1080/10438590214341.

Everest Group. (2008) Ready to compete: South Africa's BPO capabilities in the financial services sector, http://www2.everestgrp.com/reportaction/BusinessTrust-EverestSouthAfricaBPO/Marketing.

Feeny, D., Lacity, M., and Willcocks, L. P. (2005) Taking the measure of outsourcing providers. MIT Sloan Management Review, Spring 2005. Retrieved from http://sloanreview.mit.edu/article/taking-the-measure-of-outsourcing-providers/.

Freeman, C. (1995) The “National System of Innovation” in historical perspective. *Cambridge Journal of Economics* 19(1): 5–24. doi: 10.1093/OXFORDJOURNALS.CJE.A035309.

Gereffi, G. and Fernandez-Stark, K. (2011). Global value chain analysis: A primer. Center on Globalization, Governance & Competitiveness (CGGC), Durham, NC: Duke University, http://www.cggc.duke.edu/pdfs/2011-05-31_GVC_analysis_a_primer.pdf.

Giuliani, E., Pietrobelli, C., and Rabellotti, R. (2005) Upgrading in global value chains: Lessons from Latin American clusters. World Development 33(4): 549–573. doi: 10.1016/j.worlddev.2005.01.002.

Grant, R. M. (1996) Toward a knowledge-based theory of the firm. Strategic Management Journal 17(S2): 109–122. doi: 10.1002/smj.4250171110.

Humphrey, J. and Schmitz, H. (2002) How does insertion in global value chains affect upgrading in industrial clusters? Regional Studies 36(9): 1017-1027, doi: 10.1080/0034340022000022198

IQ Business (2014) Business Process Outsourcing (BPO) Learning and Development Research Report, https://www.bpesa.org.za/wp-content/uploads/2015/05/Learning-and-Development-BPO-report.pdf

Knowledge Executive (2014) Market intelligence report 2015-2016 - Human capital and skills development, https://www.bpesa.org.za/wp-content/uploads/2015/12/Human-Capital-and-Skills-Development-Report.pdf.

Kowalski, P., Gonzalez, J. L., Ragoussis, A., and Ugarte, C. (2015) Participation of Developing Countries in Global Value Chains. OECD Publishing. doi: 10.1787/5JS33LFW0XXN-EN.

Lacity, M. C. and Willcocks, L. (2012) *Advanced outsourcing practice: Rethinking ITO, BPO and cloud services*, http://www.palgraveconnect.com/pc/doifinder/view/10.1057/9781137005588.0001.

Lahiri, S., Kedia, B. L., and Mukherjee, D. (2012) The impact of management capability on the resource–performance linkage: Examining Indian outsourcing providers. Journal of World Business 47(1): 145–155. doi: 10.1016/j.jwb.2011.02.001.

Lundvall, B.-A. (1992) National systems of innovation: Towards a theory of innovation and interactive learning. New York: Pinter Publishers.

Mann, L. and Graham, M. (2015) The domestic turn: Business processing outsourcing and the growing automation of Kenyan organisations. Journal of Development Studies 52(4): 530-548. doi: 10.1080/00220388.2015.1126251.

Malerba, F. (2002). Sectoral systems of innovation and production, *Research Policy* 31(2): 247–264.

Mashalaba, N., Wyatt, A., Mathe, J. and Singh, R. (2015) Implementation evaluation of the business process services incentive programme Background and context. African Evaluation Journal 3(1), Art. #146. doi: 10.4102/aej.v3i1.146.

Massini, S. and Miozzo, M. (2012) Outsourcing and offshoring of business services: Challenges to theory, management and geography of innovation. Regional Studies 46(9): 1219–1242. doi: 10.1080/00343404.2010.509128.

Morrison, A., Pietrobelli, C., and Rabellotti, R. (2008) Global value chains and technological capabilities: A framework to study learning and innovation in developing countries. Oxford Development Studies 36(1): 39–58. doi: 10.1080/13600810701848144.

NASSCOM (2015). India IT-BPM Overview, http://www.nasscom.in/indian-itbpo-industry.

Oshri, I., Kotlarsky, J., and Willcocks, L. P. (2015). The Handbook of Global Outsourcing and Offshoring, 3rd Edition. Palgrave Macmillan.

Penrose, E. T. (1959). The Theory of the Growth of the Firm. New York: John Wiley.

Pietrobelli, C. and Rabellotti, R. (2011) Global value chains meet innovation systems: Are there learning opportunities for developing countries? World Development 39(7): 1261–1269.

Willcocks, L., Lacity, M. C., and Craig, A. (2015) South Africa's BPO service advantage: Becoming strategic in the global marketplace. London: Palgrave.

Yin, R. K. (2014) Case study research: Design and methods. 5th Edition. Thousand Oaks: Sage.

Zille, P. (2015) Analysis of the business process services sector: Final report, http://www.genesis-analytics.com

The UNU-MERIT WORKING Paper Series

2017-01 *The economic impact of East-West migration on the European Union* by Martin Kahanec and Mariola Pytliková
2017-02 *Fostering social mobility: The case of the 'Bono de Desarrollo Humano' in Ecuador* by Andrés Mideros and Franziska Gassmann
2017-03 *Impact of the Great Recession on industry unemployment: a 1976-2011 comparison* by Yelena Takhtamanova and Eva Sierminska
2017-04 *Labour mobility through business visits as a way to foster productivity* by Mariacristina Piva, Massimiliano Tani and Marco Vivarelli
2017-05 *Country risk, FDI flows and convergence trends in the context of the Investment Development Path* by Jonas Hub Frenken and Dorcas Mbuvi
2017-06 *How development aid explains (or not) the rise and fall of insurgent attacks in Iraq* by Pui-Hang Wong
2017-07 *Productivity and household welfare impact of technology adoption: Micro-level evidence from rural Ethiopia* by Tigist Mekonnen
2017-08 *Impact of agricultural technology adoption on market participation in the rural social network system* by Tigist Mekonnen
2017-09 *Financing rural households and its impact: Evidence from randomized field experiment data* by Tigist Mekonnen
2017-10 *U.S. and Soviet foreign aid during the Cold War: A case study of Ethiopia* by Tobias Broich
2017-11 *Do authoritarian regimes receive more Chinese development finance than democratic ones? Empirical evidence for Africa* by Tobias Broich
2017-12 *Pathways for capacity building in heterogeneous value chains: Evidence from the case of IT-enabled services in South Africa* by Charlotte Keijser and Michiko Iizuka