



# Leveraging the Services Sector for Inclusive Value Chains in Developing Countries

Judith Fessehaie



International Centre for Trade  
and Sustainable Development

Issue Paper



# Leveraging the Services Sector for Inclusive Value Chains in Developing Countries

---

**Judith Fessehaie**

Centre for Competition, Regulation and Economic Development (CCRED),  
University of Johannesburg



**Published by**

International Centre for Trade and Sustainable Development (ICTSD)  
International Environment House 2  
7 Chemin de Balexert, 1219 Geneva, Switzerland

Tel: +41 22 917 8492  
ictsd@ictsd.ch

Fax: +41 22 917 8093  
www.ictsd.org

Publisher and Chief Executive:  
Managing Director:  
Programme Officers:

Ricardo Meléndez-Ortiz  
Deborah Vorhies  
Nicholas Frank and Kiranne Guddoy

---

**Acknowledgements**

This paper was produced under ICTSD's Programme on Inclusive Economic Transformation as part of a project focused on global value chains which is aimed at empowering least developed and low income countries to effectively utilise value chains to achieve sustainable and inclusive economic transformation.

The author wishes to thank Mike Morris (PRISM, University of Cape Town) and an anonymous reviewer for their helpful comments and inputs on a previous draft of this paper.

ICTSD is grateful for the generous support from its core donors including the UK Department for International Development (DFID); the Swedish International Development Cooperation Agency (SIDA); the Ministry of Foreign Affairs of Denmark (Danida); the Netherlands Directorate-General of Development Cooperation (DGIS); and the Ministry of Foreign Affairs of Norway.

---

ICTSD welcomes feedback on this publication. This can be sent to Kiranne Guddoy (kguddoy@ictsd.ch) or Fabrice Lehmann, ICTSD Executive Editor (flehmann@ictsd.ch).

**Citation:** Fessehaie, Judith. 2017. *Leveraging the Services Sector for Inclusive Value Chains in Developing Countries*. Geneva: International Centre for Trade and Sustainable Development (ICTSD).

**Copyright** © ICTSD, 2017. Readers are encouraged to quote and reproduce this material for educational and non-profit purposes, provided the source is acknowledged. This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit: <https://creativecommons.org/licenses/by-nc-nd/4.0/>

The views expressed in this publication are those of the author and do not necessarily reflect the views of ICTSD or the funding institutions.

ISSN 1995-6940

## TABLE OF CONTENTS

LIST OF FIGURES, TABLES AND BOXES	iv
LIST OF ABBREVIATIONS	v
FOREWORD	vi
EXECUTIVE SUMMARY	vii
1. INTRODUCTION	1
2. SERVICES AND GLOBAL VALUE CHAINS	2
2.1 Governance and Upgrading in GVCs	2
2.2 Mapping Services Inputs into GVCs	3
2.3 Drivers and Modalities of GVC Servicification	4
3. THE ECONOMIC CONTRIBUTION OF SERVICES TO VALUE CHAINS	6
3.1 Contribution of Services to GVCs at the Macro Level	6
3.2 Contribution of Services to GVCs at the Meso Level	6
3.3 Contribution of Services to GVCs at the Micro Level	7
4. PROMOTING SUSTAINABLE DEVELOPMENT GOALS	8
5. SERVICIFICATION OF GVCs: SECTORAL CONSIDERATIONS	9
5.1 Research and Development and Product Development	10
5.2 Professional Services	11
5.3 Infrastructural Services	12
5.4 Marketing and Distribution	13
5.5 Aftermarket Services	16
6. CONCLUSIONS AND POLICY IMPLICATIONS	18
REFERENCES	21

## LIST OF FIGURES, TABLES AND BOXES

Figure 1: Services contribution to GVCs

Figure 2: Sourcing of professional services, Eastern and Southern Africa

Figure 3: Female employment, ownership, and top management in SSA

Table 1: Modalities of firm servicification

Table 2: Composition of services acquired and offered by Sandvik Tooling

Table 3: Aftermarket sales for mining and mineral processing machinery

Table 4: Summary of key conclusions

Box 1: End markets, buyers, and upgrading

Box 2: Retail chains—inclusive growth and supplier development programmes

Box 3: Senegal's entry into BPO services

## LIST OF ABBREVIATIONS

APEC	Asia-Pacific Economic Cooperation
B2B	business to business
BPO	business process outsourcing
CMT	cut, make, and trim
FDI	foreign direct investment
GATS	General Agreement on Trade in Services
GVC	global value chain
HR	human resources
ICT	information and communication technology
IP	intellectual property
IT	information technology
KPO	knowledge process outsourcing
LDC	least developed country
LIC	low income country
OECD	Organisation for Economic Co-operation and Development
OEM	original equipment manufacturer
PC	personal computer
R&D	research and development
RVC	regional value chain
SDF	Supplier Development Fund
SDG	Sustainable Development Goal
SME	small and medium-sized enterprise
SSA	sub-Saharan Africa
TiVA	Trade in Value-Added
TNC	transnational corporation
US	United States
WTO	World Trade Organization

## FOREWORD

The nature of production, business processes, and economic interdependence has been fundamentally altered by the emergence of regional and global value chains. Changes of this scope and scale represent both opportunities and challenges in terms of advancing sustainable development outcomes in least developed and low income countries. Ensuring that developing country firms can not only participate in value chains but also, and perhaps more importantly, upgrade within them is of vital importance.

Both participation and upgrading within value chains require access to key services inputs such as information and communication technology services, financial services, energy, transportation, and logistics—many of which are outsourced. The increasing servicification of manufacturing, as well as growing levels of modularisation of services, helps to explain the rising share of services within the export baskets of both developing and developed economies. These trends have important implications for the achievement of inclusive and sustainable economic growth, given the contribution of services within new production networks to employment, economic growth, and poverty alleviation.

In this paper, Judith Fessehaie presents a conceptual framework of the contribution of services to value chains, examines the involvement of services within value chains at the macro, meso, and micro levels, and discusses the sustainable development implications of services in value chains. The author further provides readers with a number of key conclusions and general policy implications.

This paper, part of a series of ICTSD publications related to services and sustainable development in least developed and low income countries, is designed to expand the body of knowledge in the area of services and sustainable development and to support positive and innovative service sector policy change in the world's most vulnerable countries. We hope this research, as well as the companion pieces in the series, will prove useful to policymakers and researchers.



Ricardo Meléndez-Ortiz

## EXECUTIVE SUMMARY

With few exceptions, such as finance and logistics, the role of services in global value chains (GVCs) is usually neglected. Yet, services contribute to GVCs in broader and deeper ways. For example, it was technological advances in transport and communication that made it possible at all for transnational corporations, retailers, and brand houses to outsource and offshore production to distant countries. Moreover, most discussions on services and developing countries tend to be framed in terms of opportunities for trade in services (tourism, business process outsourcing (BPO)) rather than services supportive of participation and upgrading in GVCs. Only recently have we started to understand the extent of “servicification” of GVCs.

This paper looks at the contribution of services to GVCs. In particular, it discusses the multiple roles of services in GVCs—as essential inputs, highly profitable value-added links, and channels to attain the Sustainable Development Goals (SDGs). Two aspects of services in GVCs are noticeable. Firstly, the areas where firms in developing countries have struggled to upgrade are service related: research and development (R&D), product development, and marketing are knowledge intensive and tend to be located in countries with high endowments of skills, technologies, and “know-how.” A small number of emerging economies have now joined this group of countries. Secondly, participation and upgrading in GVCs requires access to services inputs which are usually outsourced. Some inputs are acquired using existing networks (telecom); others are outsourced to third parties. Competitive access to these inputs is essential to promote participation and upgrading in GVCs—for example, financial services allow firms to invest in innovation and expand production; transport services allow firms to access inputs and export markets; and technical testing and analysis services allow firms to participate in standards-intensive GVCs such as fresh fruits and vegetables and upgrade into high-value, niche markets such as organics or fair trade.

The paper discusses the servicification of GVCs for key service sectors, focusing on the following aspects:

1. The participation and upgrading opportunities for Low Income Countries (LICs) and least developed countries (LDCs) in regional value chains (RVCs) in particular;
2. The potential impact of servicification of GVCs on selected SDGs; and
3. Policy implications in terms of trade in services and investment.

The key messages for policymakers arising from this paper are summarised as follows:

### **1. No “one size fits all” strategy**

Value chain upgrading strategies need to be adjusted to take account of countries’ capabilities, industries, segment of the value chain targeted, and end markets. Hence, some services will be more important than others.

### **2. Trade policy design needs to be informed by detailed value chain analysis**

Trade negotiations need to take a holistic view across goods and services. Trade policy design should be based on detailed understanding of which services sectors’ liberalisation and regulation can be instrumental to value chain competitiveness and where increased services exports and imports are supportive of exports of goods.

### **3. Domestic regulations**

Domestic regulations are important to ensure access by SMEs, women, and youth; new entry and competition; and effective market access liberalisation in RVCs. The impact on SDGs critically depends on the design and enforcement of these regulations. Moreover, Heuser and Mattoo

(2017) argue that exporting countries should place more emphasis on international cooperation in regulatory cooperation and on credible regulatory commitments to safeguard the interests of consumers in importing countries. These processes would be critical to support further processes of services liberalisation.

#### **4. Need for broader policy interventions**

Trade policies and domestic regulations need to be accompanied by policies and measures to address bottlenecks to firm competitiveness and increase firm productivity. These include: skills development, in particular at the technical level; increased access to ICT, finance, and business development services; investment in domestic technological upgrading in terms of equipment, management, and organisations; cheaper and more reliable physical infrastructure; improvement of administrative procedures and reduced red tape, in particular across borders; improved access to market information, business to business linkages, and export promotion; and institutional capacity building for government and business associations. Domestic policy interventions can also increase the domestic value-added content of exports by developing linkages between exporting firms and local SMEs (Blyde 2014).

#### **5. Standards and participation in GVCs**

Participation in GVCs often requires compliance with international standards. This requirement affects not only suppliers to global buyers but also suppliers further down the value chain. This implies that local service providers, such as information technology companies, professional service providers, and logistics companies, have to meet very high standards in order to supply their export-oriented customers. While compliance costs are generally high across the board, they can be particularly burdensome for SMEs in developing countries. Case studies from Latin America and Asia (Blyde 2014; Low and Pasadilla 2015) highlight standards compliance as a critical area for support from policymakers.

#### **6. Broad stakeholder consultations**

Designing value chains and trade strategies requires broad, substantial, and continuous consultations with government ministries and agencies, foreign and domestic lead firms, and domestic suppliers. This will ensure that strategies are effective and stakeholders are committed to their implementation and monitoring.

#### **7. Role for public-private partnerships**

Policymakers should explore areas where partnerships with lead firms can facilitate participation and upgrading processes. Examples include partnerships with offshore industry firms to promote skills development; with supermarkets to promote local sourcing; and with lead auto, machinery, and electronics original equipment manufacturers to localise high-value aftermarket services.

#### **8. Regional value chains and regional cooperation**

Regional value chains offer significant opportunities for LIC and LDC firms with limited product development, marketing, and distribution capabilities to participate and upgrade in value chains. Deepening regional integration in goods and services can support the development of RVCs. A recent review of case studies in Africa shows that successful services exports started in the region and in one mode of supply, and subsequently generated services exports in other, complementary modes, sometimes beyond the continent (Stephenson and Tumuhimise 2015). Moreover, regional cooperation should target shared infrastructure and scale and/or knowledge-intensive services such as sectoral R&D.

Summary of key conclusions

Upgrading in GVCs/RVCs	Impact on selected SDGs	Trade and investment policies
<p>Infrastructural services, namely transport, finance, information and communication technology (ICT), and construction services are essential to connect producers to markets and increase firm productivity.</p> <p>Firm productivity and upgrading are also positively correlated with access to professional, technical testing and analysis, management consultancy, and advertising services.</p> <p>R&amp;D and product innovation services are critical to ensure long-term competitiveness, although these services have particularly high barriers to entry for LIC and LDC producers.</p> <p>Marketing, distribution, and aftermarket services have become increasingly profitable services for lead firms. Lead firms controlling marketing and distribution services, in particular, exercise significant power in GVCs/RVCs, with potentially exclusionary effects on LDC and LIC producers.</p>	<p>Growth in domestic production and trade of service sectors can support LIC and LDC producers' participation and upgrading in GVCs/RVCs. This impacts on SDG 1 (poverty reduction), SDG 8 (inclusive economic growth), and SDG 10 (reducing inequalities within and between countries).</p> <p>When governments and lead firms adopt targeted measures, service growth and upgrading can impact on SDG 5 (gender equality). Illustrative examples include R&amp;D services for agricultural products with high female participation; access to training and ICT to expand services exports by female professionals; and skills development for female employees in BPO and knowledge process outsourcing (KPO) industries.</p>	<p>Liberalisation across all modes of supply is important to increase competitiveness in the domestic and export markets.*</p> <p>Liberalisation in WTO GATS Mode 1 trade in services is very important for professional services because it can potentially support gender and small and medium-sized enterprise (SME) inclusiveness. Mode 1 liberalisation in R&amp;D, technical testing, and management services, can improve quality and price of service inputs for domestic firms.</p> <p>Liberalisation under WTO GATS Mode 3 is important for all services, particularly to foster investment in infrastructural services or to attract strategic investors to spearhead new industries such as BPO and KPO.</p> <p>National treatment limitations and domestic regulations may be required to achieve public policy objectives such as universal access provisions and competition policy. Hence, institutional capabilities are essential. Sometimes, restriction on ownership is required to ensure optimal investment levels.</p> <p>Other measures, such as incentives for foreign retail chains to invest in supplier development programmes, may also be desirable.</p> <p>Mode 4 liberalisation would support growth and access to key sectors such as professional and R&amp;D services.</p> <p>Upgrading in skills and knowledge-intensive services, such as product development and marketing, is easier in the context of RVCs. Hence, LICs and LDCs should focus on deepening regional integration for goods and services trade.</p>

\* The definition of services trade under the GATS depends on the territorial presence of the supplier and the consumer at the time of the transaction:

- Mode 1 refers to services supplied from the territory of one Member into the territory of any other Member (Cross border trade);
- Mode 2 refers to services supplied in the territory of one Member to the service consumer of any other Member (Consumption abroad);
- Mode 3 refers to services supplied by a service supplier of one Member, through commercial presence, in the territory of any other Member (Commercial presence); and
- Mode 4 refers to a services supplied by a service supplier of one Member, through the presence of natural persons of a Member in the territory of any other Member (Presence of natural persons).



## 1. INTRODUCTION

Global value chains (GVCs) underpin most international trade and production taking place today. They describe the different value-added links, composed of many activities, required to bring a product from conception and design to its delivery to the final consumer and, finally, to its disposal (Kaplinsky and Morris 2001). Globalisation has entailed the geographical dispersion and functional integration of these value-added links, governed by transnational industrial and commercial capital (Gereffi 1994). This process has been enabled by technological innovations, transport, communications, and trade liberalisation and has resulted in increased offshoring of services and manufactured activities to developing countries, whose share in global manufactures trade grew from 10 percent in 1980 to 45 percent in 2014 (UNCTAD 2016). More than half of global trade is now dominated by intermediated goods.

The role of services in GVCs is increasingly recognised amongst researchers and policy-makers. Recent studies refer to the “servicification” of manufacturing (National Board of Trade 2010a,b) and provide insightful country- or firm-based case studies (see Blyde 2014 for Latin America; Low and Pasadilla 2015 for Asia-Pacific Economic Cooperation (APEC) countries; Stephenson and Tumuhimbise 2015 for Africa). Services contribute to GVCs in multi-faceted ways. For example, it was technological advances in transport and communication that made it possible at all for transnational corporations (TNCs), retailers, and brand houses to outsource and offshore production to distant countries. Most discussions on services and developing countries tend to be framed in terms of opportunities for trade in services (tourism, business process outsourcing (BPO)) rather

than services supportive of participation and upgrading in GVCs. Yet, access to competitive services matters even more, as it enables firms to invest in new business opportunities, increase productivity, and make coordinated decisions with their suppliers and customers (Heuser and Mattoo 2017).

Today, services make a strong contribution to overall economic growth, generating more than 60 percent of jobs worldwide and 37 percent in low income countries (LICs), as well as accounting for an average 45 percent of gross domestic product in LICs and least developed countries (LDCs) (ICTSD 2016; Stephenson and Drake-Brockman 2014). Moreover, services growth is strongly correlated to poverty reduction, and services research and development (R&D) and innovation account for an increasing share of productivity growth.

This paper looks at the contribution of services to GVCs. In particular, it discusses the multiple roles of services in GVCs as essential inputs, highly profitable value-added links, and channels for attaining the Sustainable Development Goals (SDGs).

The paper is organised as follows. Section two presents a conceptual framework of the contribution of services to GVCs. Section three briefly discusses the economic contribution of services to GVCs at the macro, meso, and micro levels. Section four explains how the contribution of services to GVCs can impact SDGs in general terms. Section five looks more closely at the impact of the servicification of GVCs on LIC and LDC upgrading, SDGs, and policymaking in key services—namely R&D/product development, professional services, infrastructural services, marketing/distribution, and aftermarket services. General policy implications are described in section six.

## 2. SERVICES AND GLOBAL VALUE CHAINS

Analysis of GVCs is based on two key concepts: governance and upgrading. These concepts inform how value-added tasks and firms contribute to the creation of value added and economic returns, and explain inequalities and dynamic changes across GVCs.

### 2.1 Governance and Upgrading in GVCs

By developing GVCs, “lead firms” such as TNCs, retail chains, and branded houses have fragmented their supply chains across the world, but still “govern” suppliers to ensure they meet their requirements in terms of price, quality, standards, lead times, and so forth (Kaplinsky and Morris 2001). “Governance involves the ability of one firm in the chain to influence or determine the activities of other firms in the chain” (Gereffi et al. 2001: 4). In doing so, lead firms decide which firms and countries will participate in GVCs, how rents are distributed among participating firms, whether and how to support suppliers, and how non-performing suppliers are sanctioned. Governance is fluid because some GVCs are characterised by a variety of governance types (Fold 2002; Gereffi 1994; Gibbon 2008) and governance changes over time (Sturgeon 2002).

For policymakers in developing countries, what matters is their country’s ability not only to participate in GVCs but also to upgrade into more remunerative, sustainable value-added links (Gereffi 1994; Kaplinsky 2005). Over the years, lead firms have outsourced production of the less profitable value-added links, usually labour-intensive manufacturing activities characterised by low entry barriers. More recently, higher-tech industries, such as electronics, have seen the same type of outsourcing and falling profitability typically found in labour-intensive industries such as clothing. Historically, participation of developing countries in GVCs has been limited to manufacturing value-added links or supply of raw materials.

Conversely, lead firms have retained control of “intangible” activities such as design, R&D,

marketing, retailing, and aftermarket services (Kaplinsky 2005). It is in these value-added links that developing countries’ upgrading is most desirable, and yet more difficult, because of high knowledge and skills-related entry barriers. Only a few countries have managed to upgrade into these value-added links. For example, Taiwanese firms have succeeded in supplying personal computers (PCs) under their own branded names and design (Acer, ASUSTeK) (Sturgeon and Kawakami 2010).

The widely adopted definition of upgrading encompasses the following types of capabilities: a) improvements in the production process, for example by re-organising production systems or adopting new technologies (“process upgrading”); b) moving into more sophisticated product lines (“product upgrading”); c) establishing backward linkages to input sectors (“supply chain upgrading”); d) diversifying to new buyers (“end market upgrading”); e) moving into new value-added links (“functional upgrading”); and f) shifting to new value chains in other sectors (“chain upgrading”) (Humphrey and Schmitz 2002; Kaplinsky and Morris 2001; Staritz, Plank and Morris, 2016). How these upgrading processes occur is complicated by type of lead firm, supplier capabilities, conflicting competitiveness between various links in the value chain, and institutional interventions.

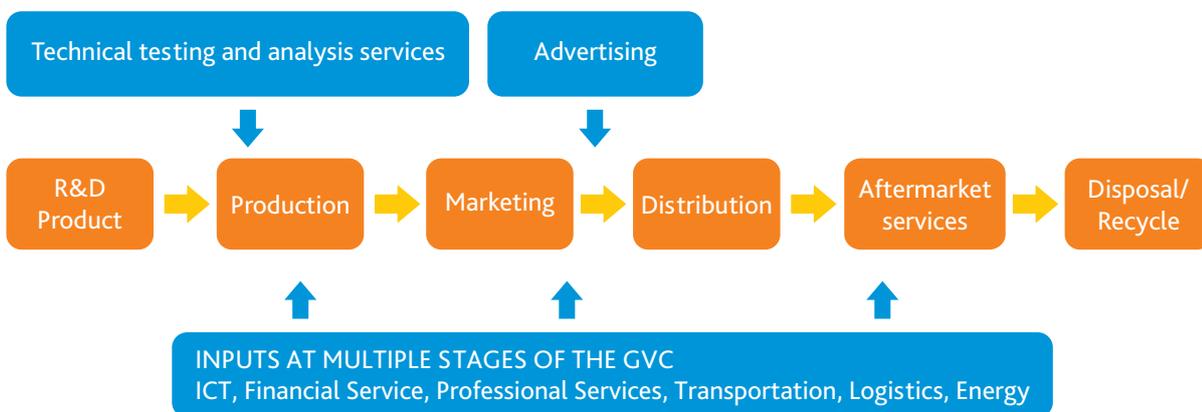
Regional value chains (RVCs) are particularly important as an avenue to promote upgrading in developing countries. Regional markets are becoming strategically important given their high growth (although often from low levels). Urbanisation and high economic growth are underpinning fast-growing demand for goods and services. In particular, the rise of a middle class which is larger, younger, more urbanised, and embedded in the private sector than ever before (Handley 2015) has a distinctive impact in shaping this demand, with more sophisticated, aspirational, and demanding customers.

### 2.2 Mapping Services Inputs into GVCs

A broad range of industries, from agro-processing to consumables and from machinery to minerals, are spawned by GVCs. Figure 1 shows how selected services sectors fit into a GVC. A GVC typically spans from R&D and product design, to production, marketing, and distribution. Some value chains extend to aftermarket and disposal services. Services such as information and communication

technology (ICT), financial services, energy, and transportation encompass multiple value-added links. This also applies to low-value services such as security and cleaning. Other services are more specific to a value-added link: technical testing and analysis services are used at the product development and manufacturing stage, and advertising services at the marketing stage. There are services which are GVC-specific and have not been included in Figure 1, for example engineering and construction services.

Figure 1: Services contribution to GVCs



Source: Author’s analysis.

Services can be categorised as either “embodied” or “embedded” services. Embodied services constitute inputs into the manufacturing of a good (R&D or energy, for example), while embedded services are inputs into the sale of a good (repair and maintenance or leasing, for example). Embodied services can account for up to 50 percent of the total value of the good (Stephenson and Drake-Brockman 2014). However, these categories overlap and, from a policy perspective, this distinction is not useful because it does not say anything about the contractual relationship between firms (Low 2013).

If one is interested in analysing strategies to enhance competitiveness and promote upgrading in GVCs, two aspects of Figure 1 become relevant. Firstly, the areas where firms in developing countries have struggled to upgrade are service related: R&D, product development, and marketing are knowledge intensive and tend to be located in countries with high endowments of skills, technologies,

and “know-how.” A small number of emerging economies have now joined this group of countries. Aftermarket services tend to be difficult for developing country firms to access because they are knowledge and skills intensive, and customers are usually tied to lead firms through long-term contractual arrangements, leaving little room for new entrants.

Secondly, participation and upgrading in GVCs requires access to services inputs which are usually outsourced. Some inputs are acquired using existing networks (telecom); others are outsourced to third parties. Provision can be dominated by government (utilities, education), a mix of public and private sector (transport, R&D, and finance), or the private sector (advertising services, professional services). Competitive access to these inputs is essential to promote participation and upgrading in GVCs—for example, financial services allow firms to invest in innovation and expand production; transport services allow firms to access inputs and export markets; technical testing and

analysis services allow firms to participate in standards-intensive GVCs such as fresh fruits and vegetables, and upgrade into high-value, niche markets such as organics or fair trade.

When these two issues are considered, it is obvious that the policies and regulations of individual services sectors should be informed by a value chain perspective and, vice versa, value chain upgrading strategies should encompass multiple services sectors.

### 2.3 Drivers and Modalities of GVC Servicification

The increasing importance of services to GVCs has been defined as the “servicification of manufacturing” (National Board of Trade 2010a) and characterised as a process whereby, compared to the past, manufacturing companies produce more services in-house, buy more services, and export more services (National Board of Trade 2010a, 2012).

Servicification is driven by factors both endogenous and exogenous to the firm. Endogenous factors relate to firm strategies to maximise profits and/or increase market shares. Firms use services to increase market shares, for example by investing in brand management and marketing. They can also use services to expand revenue streams, especially in activities that are more profitable than manufacturing per se such as aftermarket services. Services can also be critical in out-winning competitors, especially in sectors where customers expect full-package services. This has happened in electronics and apparel manufacturing, for example, where global branded buyers expect contractors to be involved in a range of pre-production (design, R&D, purchasing) and post-production services (logistics, marketing, branding) (Appelbaum 2008; Gereffi 2013; Sturgeon and Kawakami 2010). Finally, the services component in sophisticated manufacturing goods, such as software in cars, is growing (Heuser and Mattoo 2017).

Another order of factors is exogenous to the firm and includes technological innovations in ICT and transport, and the growing modularisation of services (Low 2013; Low and Pasadilla 2015;

Stephenson and Drake-Brockman 2014). The storability and transportability of services, which were not possible in the past, have been enabled by ICT. Modularisation refers to the increased formalisation, codification, and standardisation of services activities. These factors have enhanced the tradability of services inputs and made it possible to outsource and offshore services. Moreover, the increasing share of services value added in manufacturing exports is due to an increase in the prices of services tasks relative to manufacturing tasks because manufacturing tasks are easier to offshore to lower cost locations (Heuser and Mattoo 2017).

Servicification can take different forms (Table 1). Services can be produced in-house, either within the same business units or by setting up separate business units. The latter strategy is common in enterprise firms or conglomerates where manufacturing subsidiaries operate together with services subsidiaries (logistics, technology development, finance, etc.). These subsidiaries can be located in the domestic economy or set up abroad.

When services are outsourced, there are more opportunities for specialised suppliers to enter and grow in GVCs. These opportunities can be created in the domestic economy or in foreign countries (offshoring). A firm’s decision to outsource is driven by a range of considerations: cost reduction, specialised suppliers being better able to reap economies of scale and external economies, links to networks of supplies, regulations specifying competent suppliers, and so forth (Low and Pasadilla 2015). Moreover, this strategy may change over time. For example, the offshore services industry in the early 1990s was dominated by TNCs investing in “captive centres” in developing countries for cost-sensitive operations such as call centres (Fernandez-Stark, Bamber, and Gereffi 2011). In the late 1990s, the offshore services industry became increasingly controlled by third parties originating from both developed and developing countries. Since the 2000s, firms in developing countries have established global networks to supply global and regional markets and have progressively moved into higher value-added services.

**Table 1: Modalities of firm servicification**

	HOME COUNTRY		OFFSHORING
IN-HOUSE	Within the same firm	Within the same enterprise group in home country	Within the same enterprise group but located in foreign countries
OUTSOURCED		To third parties in home country	To third parties in foreign countries

Source: Adapted from National Board of Trade (2010a).

### 3. THE ECONOMIC CONTRIBUTION OF SERVICES TO VALUE CHAINS

While services are very important in GVCs, there are several challenges in accounting for their value (Low 2013). There are several reasons for this: their intangible nature; they are often bundled together with goods or with other services; sometimes they are not priced; they can be highly customised (therefore it is difficult to use standard pricing); and there is no universal nomenclature and accounting system.

The following sub-section aims to provide insights into the servicification of GVCs at three levels: 1) the macro level, 2) the meso level, and 3) the micro level.

#### 3.1 Contribution of Services to GVCs at the Macro Level

The Trade in Value-Added (TiVA) database by the WTO/OECD accounts for world trade disaggregated by value added and inclusive of services inputs. The services value-added component of a country's exports is composed of foreign services value added and domestic value added (Heuser and Mattoo 2017). The latter, however, does not distinguish between services supplied by domestic firms and those supplied by foreign firms via Mode 3 investment under the WTO General Agreement on Trade in Services (GATS).<sup>1</sup> It therefore underestimates the contribution of trade in services to services value added. The TiVA database also underestimates the contribution of in-house services to exports.

The contribution of services world value-added exports increased from 31 percent in 1980 to 43 percent in 2009 and is therefore significant and growing (Heuser and Mattoo 2017). There are variations by country and industry, but the largest contributors are distribution and business services, which include telecommunication services, computer services, professional services, R&D services, consulting, advertising and marketing services, technical testing services, and environmental services (Miroudot 2016 in Heuser and Mattoo 2017).

#### 3.2 Contribution of Services to GVCs at the Meso Level

The contribution of services inputs to GVCs at the industry level varies. However, in most value chains, it is substantial. A value chain study for apparel found that manufacturing accounted for only 9 percent of the retail price of a jacket, and product design, intellectual property (IP), branding, and retail accounted for the remaining share (Low 2013). The contribution of services value-added links and inputs is also important because of the impact on job creation. In South Africa's automotive value chain, indirect job creation effects are substantial and have increased (Farole 2015). In 2001, one direct job in auto production created one additional indirect job; in 2013, it created three indirect jobs. This is due to the growing contribution of embedded and embodied services, such as financial services (leasing, personal loans), logistics, aftermarket services, and so forth, in the auto value chain.

---

1 The definition of services trade under the GATS depends on the territorial presence of the supplier and the consumer at the time of the transaction:

- Mode 1 refers to services supplied from the territory of one Member into the territory of any other Member (Cross border trade);
- Mode 2 refers to services supplied in the territory of one Member to the service consumer of any other Member (Consumption abroad);
- Mode 3 refers to services supplied by a service supplier of one Member, through commercial presence, in the territory of any other Member (Commercial presence); and
- Mode 4 refers to a services supplied by a service supplier of one Member, through the presence of natural persons of a Member in the territory of any other Member (Presence of natural persons).

### 3.3 Contribution of Services to GVCs at the Micro Level

There is a paucity of data on servicification at the firm level. A well-known value chain study of the Nokia N95 indicated that 31 percent of retail value was accounted for by Nokia’s in-house services, including branding, development, design, and management (Ali-Yrkkö et al. 2011). Most noticeably, components and assembly made up only 33 percent and 2 percent, respectively, of the phone retail value.

A 2010 study presents an illustrative example of the number and range of services acquired and sold by Sandvik Tooling, a Swedish multinational producing machinery (National Board of Trade 2010b). According to the study, Sandvik Tooling sources approximately 40 types of services, either in-house or acquired from third parties, and sells approximately 15 types of services (Table 2). A review of 22 case studies of firms involved in capital goods, consumption goods, intermediates, natural resource extraction, and agro-processing in 12 economies showed that the number of services inputs ranged between 37 and 74 (Low and Pasadilla 2015).

**Table 2: Composition of services acquired and offered by Sandvik Tooling**

SERVICES ACQUIRED
Legal services; Accounting, book-keeping, etc.; Taxation services; Placement of personnel
Computer services
Educational services
Environmental services
Banking and insurance services
R&D; Design
Advertising; Market research
Services incidental to manufacturing; Maintenance and repair
Energy services
Packaging
Printing; Publishing; Photographic services; Audio-Visual services
Courier services; Logistic services; Postal services; Telecommunications; Hotels and restaurants; Travel agency services; Maritime transport–freight; Inland waterways–freight; Inland waterways–freight; Air transport–freight/passenger; Road transport–freight/passenger; Cargo handling services; Storage and warehouse services; Freight transport agency services; Feeder services
Rental/Leasing services;
Security services;
Building cleaning services;
Medical services; Health-related services

SERVICES OFFERED
R&D; Design; Computer services
Rental/leasing; Financial services
Management consulting; Technical testing and analysis services; Services incidental to manufacturing
Maintenance and repair
Environmental services; Logistics; Warehouse services

Source: National Board of Trade (2010b).

## 4. PROMOTING SUSTAINABLE DEVELOPMENT GOALS

The contribution of services to participation and upgrading into GVCs can potentially impact on the attainment of SDGs. We focus in particular on the following SDGs:

- SDG 1 (ending poverty)
- SDG 8 (inclusive economic growth)
- SDG 5 (gender equality)
- SDG 10 (reducing inequality between and within countries)

The International Centre for Trade and Sustainable Development has developed a comprehensive framework which conceptualises the relationship between SDGs and services (ICTSD 2016). According to the framework, services (domestically produced or traded) contribute to the attainment of SDGs through growth and non-growth channels. The growth channel refers to services which impact on economy-wide productivity and efficiency, and therefore economic growth. This channel contributes to poverty reduction (SDG1) and equity (SDG10). The non-growth channel works through direct effects, income effects, and other indirect effects. Direct effects refer to services, such as health services, which impact directly on a specific SDG. Income effects work through the income channel to help achieve SDGs that are closely linked to higher incomes. These include services which, by increasing economic growth, also impact on other SDGs. Finally, indirect effects refer to services contributing to a SDG in a way that is not linked to either the direct or income effect—for example, educational services can have positive impacts on environmental outcomes.

By using the lens of services and GVCs, this study takes a narrower approach to the relationship between services and SDGs. Rather than looking at services as value chains of their own and their impact on the SDGs, the paper focuses on the most common service inputs into manufacturing GVCs, such as infrastructural services, distribution, and professional services.

The servicification of GVCs can open up important opportunities for smallholders, small and medium-sized enterprises (SMEs), women, and youth. In 2010, youth accounted for 29 percent of services employment in 15 African countries (Gallup poll, in Dihel and Goswami 2016). Moreover, services are making the strongest contribution to female employment and wage growth, which contributes to poverty reduction and childhood education (Stephenson and Drake-Brockman 2014). The share of female employment in services is increasing (Lipowiecka and Kiriti-Nganga 2016). Female employment, ownership, and top management positions are proportionally higher in services than in manufacturing across most of the developing world, including in sub-Saharan Africa (SSA) (Coste and Dihel 2013).<sup>2</sup> However, female-managed services firms struggle to export compared to their male-managed counterparts, especially in Africa (Coste and Dihel 2013), because of low access to networks, capital, and knowledge (Lipowiecka and Kiriti-Nganga 2016).

The current or potential impact of the servicification of GVCs on SDGs is very industry specific, with potentially important variances by country (policies, economic structure, social and legal norms) and lead firm (lead firms organise and govern their supply chains differently).

---

<sup>2</sup> Exceptions include higher female ownership in manufacturing in Latin America and the Caribbean and a higher percentage of female top management positions in manufacturing in East Asia and the Pacific, and Latin America and the Caribbean (Coste and Dihel 2013).

## 5. SERVICIFICATION OF GVCs: SECTORAL CONSIDERATIONS

This section discusses the servicification of GVCs at the sectoral level. The discussion focuses on the participation and upgrading opportunities for LICs and LDCs in RVCs in particular. The specific focus on RVCs is due to the fact that end markets impact differently on upgrading opportunities, and RVCs may offer particularly important opportunities for producers in LICs and LDCs (Box 1). This discussion is disaggregated for sectors which figure prominently in most GVCs, namely R&D/product development, professional

services, infrastructural services, marketing/distribution, and aftermarket services. The section then looks at the potential impact of servicification of GVCs on selected SDGs, in particular SDG 1 (ending poverty), SDG 5 (gender equality), SDG 8 (inclusive economic growth), and SDG 10 (reducing inequality between and within countries). Finally, the section discusses policy implications in terms of trade in services and investment (subsumed under Mode 3 of the GATS modalities).

### Box 1: End markets, buyers, and upgrading

End markets and buyer typology matter for the upgrading of producers in GVCs. The example of the apparel value chain is illustrative. Firstly, there are variations in upgrading opportunities, shaped by buyer typology. United States (US) branded manufacturers entered into production-sharing agreements with their suppliers, which limited suppliers to cut, make, and trim (CMT) operations (Gereffi 1999). Conversely, firms supplying US retailers and marketers were encouraged to upgrade into full-package production, learning to manage logistics, supply chains, and marketing. End markets are also important. For example, in the Mauritius, Madagascar, Lesotho, and Swaziland apparel export sectors, firms supplying the European Union or regional markets faced less constraints to upgrading than firms supplying the US market (Gibbon 2008; Staritz and Morris 2014). Suppliers to the European or regional market, in particular, produced higher value-added products, integrated backwards, or managed their own suppliers, and, to some extent, moved into product design. However, suppliers to the US market were involved in CMT operations only.

Similarly, in the Asian electronics industry, US firms specialised in intangible activities (design, product specifications), leaving their Asian suppliers to upgrade capabilities in the entire manufacturing process (Borras 1997). This also led to the deepening and localisation of backward linkages. Unlike US firms, Japanese firms retained high-value goods production in the home country and relegated the low end of the product range to Asian suppliers, thereby curtailing local upgrading opportunities. Looking at the shift in export markets from Europe to China for selected African and Asian commodity producers, research found that the value-added content of exports has declined as processing was increasingly relocated to China (Kaplinsky, Terheggen, and Tijaja 2010).

Regional end markets could play an important role in promoting upgrading by producers in LDCs and LICs. These markets are less demanding in terms of quality and brands, less standard intensive than global markets, have consumer tastes that tend to be similar to domestic markets, and have established distribution networks. Supplying RVCs can also help producers diversify risks (Barrientos et al. 2016). These factors ease the participation and upgrading of LDC and LIC producers in RVCs. This has been found to be the case in a number of important value chains in Latin America, Asia, and Eastern Europe (Bazan and Navas-Alemán 2004; Navas-Alemán 2011; Pickles et al. 2006; Sturgeon and Kawakami 2010).

## 5.1 Research and Development and Product Development

### 5.1.1 Participation and upgrading

Product development and R&D are essential to ensure the long-term competitiveness of firms and countries across all industries from equipment and electronics, to textile and agro-processing. According to the Service Sector Classification list, R&D services include research on natural sciences, social sciences and humanities, and interdisciplinary research. Product development and R&D services are high value-added content links in GVCs because of their high knowledge and skills intensity. Historically, they have been controlled by lead firms in industrialised countries. Competitiveness in R&D and product development requires fairly well developed national systems of innovation with competent and dynamic universities, private and public research centres, technical education institutions, and private firms cooperating together. Due to the systemic nature of competitiveness in these services, individual firms in developing countries find entry into these services very difficult.

Some countries, such as Korea, Taiwan, and more recently China and India, have been able to achieve functional upgrading in GVCs, moving from manufacturing for global buyers to undertaking R&D and product development. In some GVCs, lead firms have been instrumental in promoting functional upgrading—for example, Taiwanese PC makers have been increasingly asked to undertake product development on behalf of their buyers. Functional upgrading, however, is the result not only of firm decisions but also of large public investment in the national system of innovation in these countries.

The decision by lead firms to outsource R&D and product development depends on a number of factors, including IP protection, transaction costs, and economies of scope. In some sectors, lead firms have established their own innovation centres in developed and, increasingly, in large developing countries, or have outsourced to third-party firms in foreign countries. The latter, part of a larger type of service outsourcing known as knowledge process outsourcing (KPO), has seen

participation by some developing countries such as India (pharmaceutical) and Chile (mining).

However, most LICs and LDCs have been excluded from these opportunities in two ways: their firms are generally not able to undertake in-house R&D and product innovation or to outsource these activities, and they do not have the capabilities to export KPO services. This is also due to weak national systems of innovation, where government funding for R&D is usually directed to health and agriculture (not agro-processing). However, firms with modest investment in product development could find viable upgrading opportunities in RVCs. Regional markets are less demanding and less standard intensive than global ones. Moreover, rather than focusing on R&D, firms in LICs and LDCs could be encouraged to adopt and adapt existing technologies, either through public initiatives or through foreign direct investment (FDI), in particular, promoting joint ventures.

### 5.1.2 Sustainable Development Goals

As mentioned earlier, R&D expenditures in LICs and LDCs tend to focus on agriculture. Government and donor funding in agricultural research services can play a critical role in increasing smallholders' productivity, thereby facilitating their participation in agricultural GVCs. Research and development can also assist countries to develop new products and enter into new GVCs. This would have a direct impact on SDGs 1 (poverty reduction) and 8 (inclusive economic growth). To the extent that R&D targets products with significant female participation, this could contribute to SDG 5 (gender equality).

The relationship between social upgrading and economic upgrading is not straightforward. When agricultural producers have to meet the stringent standards of global buyers—supermarket chains, in particular—skilled workers in LICs and LDCs benefit from higher employment opportunities and wages (Barrientos et al. 2016). Women have often benefitted because they are concentrated in higher-quality, post-harvest, and packhouse work. In Kenya, participation in RVCs has also increased opportunities for young female smallholder farmers. In some countries,

though, this social upgrading process has been accompanied by increased casualisation of labour, squeezing of wages for unskilled labour, and reduction in labour rights.

### 5.1.3 Policy implications

Developing R&D capabilities across a number of GVCs should be a longer-term goal for LDCs and LICs. In the short term, R&D partnerships with TNCs, donors, and domestic institutions should be leveraged to promote upgrading in selected commodities. These are most likely to take place in agricultural GVCs, but can also take place with large TNCs in mining and capital equipment sectors. The policy implications are multi-faceted: liberalisation across all modes of supply for R&D services; increased access for LIC and LDC firms to consultancy services; strategic FDI to promote knowledge transfer (privileging strategic types of FDI and sectors, and with complementary policies, at domestic level); and movement of researchers within and across regions, South-South and South-North (Mode 4).

Finally, increasing market access for goods in regional markets would enable firms in LICs and LDCs to leverage their limited product development capabilities. Hence, value chain upgrading strategies should take account of

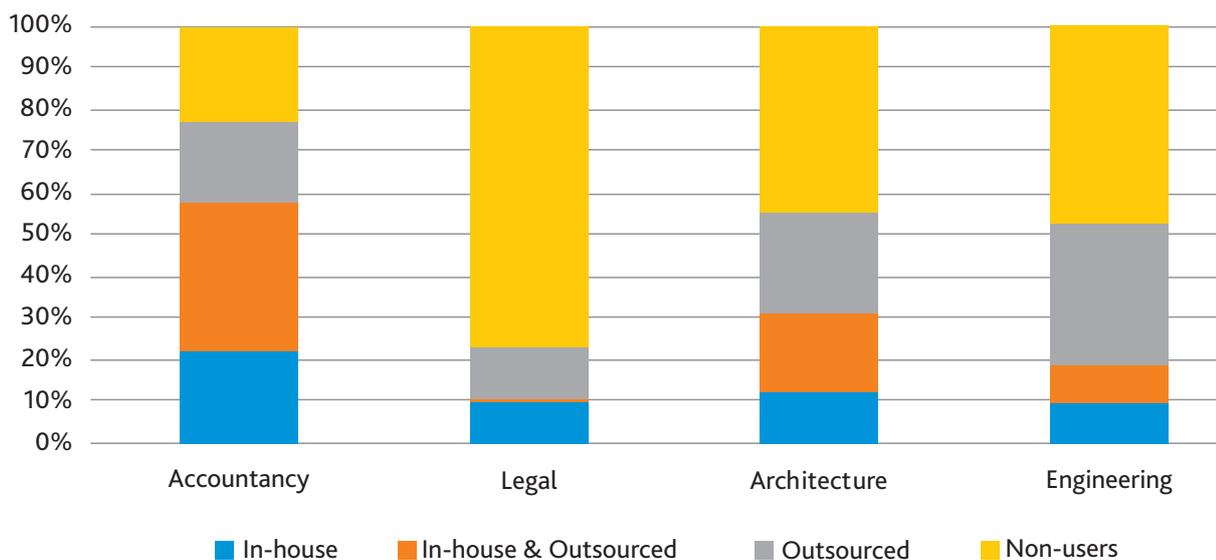
the distinctive opportunities of regional end markets. Regional cooperation in R&D should be strengthened for specific sectors. In Southern Africa, for example, there are large intra-regional flows of researchers, university lecturers, and students, and South Africa’s centres of excellence are regional in nature (Fessehaie, Rustonjee, and Kaziboni 2016). These should be leveraged to establish formal R&D cooperation programmes.

## 5.2 Professional Services

### 5.2.1 Participation and upgrading

Professional services cover a broad range of activities, such as legal, accounting, auditing, and book-keeping services, as well as architectural and engineering services. Firms’ strategies in terms of in-house vs. outsourcing vary widely by firm, country, and type of service. For example, a firm survey in Eastern and Southern Africa shows that, on average, accountancy services tend to be sourced through a combination of in-house resources and outsourcing; architecture and engineering services are mostly outsourced; and legal services are rarely outsourced at all (Figure 2). The same survey shows that firms using professional services are 10-45 percent more productive than firms that do not use them (Coste, Dihel, and Goswami 2016).

**Figure 2: Sourcing of professional services, Eastern and Southern Africa (2012)**



Source: Coste, Dihel, and Goswami (2016).

### 5.2.2 Sustainable Development Goals

Access to professional services can support achievement of SDGs in different ways. Firms using professional services are more competitive, which supports their participation and upgrading in GVCs. This enables economy-wide productivity gains, diversification, and technological upgrading, which in turn supports SDGs 8 (inclusive economic growth) and 10 (reducing inequalities within and between countries). The impact on SDGs 5 and 10 is enhanced if measures are taken to promote SMEs and female-owned firms both as buyers and providers of professional services.

### 5.2.3 Policy implications

Trade in services opportunities are critical for professional services to enable firms to source competitively from low-cost providers and to enable professional services firms to export and grow. According to a recent study, informal trade is already significant in services such as legal and accounting services in Eastern and Southern Africa. Women, however, represent only 6 percent of professional services firms (Coste and Dihel 2013). Trade opportunities for professional services fall under two industries: BPO, which includes generic business functions (human resources (HR), accounting) and KPO, which supports higher value-added engineering and legal services. Each industry presents opportunities for upgrading such as movement from call centres to payroll management; movement from one service to full-package services; and specialisation in industry-specific services (Fernandez-Stark, Bamber, and Gereffi 2011). Knowledge-intensive business services are the fastest growing component of world trade (Stephenson and Drake-Brockman 2014).

Export opportunities linked to trade in services tasks are more accessible to developing countries, including LDCs and LICs, because competitiveness is determined by human capital rather than natural resource endowment, physical capital, distance to markets, or scale economies (Stephenson and Drake-Brockman 2014). Gender-specific

benefits can be accrued through Modes 1 and 4 (Puri 2004). Mode 3 tends to be difficult for women and SMEs because of limited access to capital and restrictions on foreign investment in many host countries.

The experience of successful countries shows that human capital development and ICT investment are critical for LICs and LDCs wishing to enter the offshore services industry (Fernandez-Stark, Bamber, and Gereffi 2011). Human capital development has been pursued through different combinations of public investment, private education institutions, company-level skills development programmes, and public-private partnerships. Strategic FDI to attract specialised business- and knowledge-processing multinationals, and regulatory reforms, for example on data protection and standards, have also been important.

Deepening regional integration across all Modes, especially 1 and 4, and mutual recognition agreements can play important roles in opening up export opportunities for professional services firms in LICs and LDCs. Quotas and economic needs tests, restrictions on payments and funds repatriation, limited recognition of overseas qualifications, and nationality or residency requirements are trade barriers that should be addressed as a priority (Dihel and Goswami 2016).

## 5.3 Infrastructural Services

### 5.3.1 Participation and upgrading

A recent ICTSD study (2016) found that “backbone services”—namely transport, finance, ICT, and construction services—make the largest contribution to SDGs. These are network services requiring large infrastructure investment and critical to virtually all GVCs. Transport, finance, and ICT allow the fragmentation of supply chains across the globe. IKEA, the world’s largest home-furnishing retailer, sources approximately 9,500 product items from global suppliers spanning 50 countries and retains in-house manufacturing capacity with operations in 11 countries (Ivarsson and Alvstam 2010). This would not be possible without sophisticated transport,

logistics, communication, and financial networks to move information, services, and goods across borders, and efficiently integrate and coordinate different firms and activities.

Transport services include all modes of transport and logistics (cargo handling, storage, warehousing, agency services, and freight services). These have a strong interface with government services related to customs and border crossing. In this respect, trade facilitation measures are essential to facilitate and complement private investment in transport and logistics.

### 5.3.2 Sustainable Development Goals

Infrastructural services are essential to facilitate firms' participation and upgrading in GVCs. By doing so, they impact on SDG 8 (inclusive economic growth). National treatment limitations, domestic regulations, and investment strategies can be designed to broaden domestic access to infrastructural services. In this case, the latter can facilitate access to markets and higher productivity by smallholders, SMEs, and women. Overall, infrastructural services have the largest impact on SDGs (ICTSD 2016). By opening up opportunities for LICs and LDCs and the poor, youth, and women, they also reduce inequality between and within countries (SDG 10).

### 5.3.3 Policy implications

From a policy perspective, infrastructural services are regulation-intensive sectors, with significant government participation as owner, regulator, and/or customer. In general terms, trade liberalisation can improve competitiveness by reducing price, improving quality, and increasing reliability of services. However, most LICs and LDCs need to build the necessary institutional capabilities to design and implement effective domestic regulatory frameworks, including competition policies and national treatment limitations, to ensure universal access. Moreover, in some instances, restriction on ownership (public ownership, monopolies) may be required to ensure optimal investment in critical infrastructure.

## 5.4 Marketing and Distribution

### 5.4.1 Participation and upgrading

Marketing and distribution are important value-added links in GVCs and enable lead firms to accrue significant economic returns. In terms of marketing, branding is now critical to differentiate products, raise market shares, and increase profit margins. This applies to almost all GVCs where there is room for product differentiation. Even in commodities such as coffee and cocoa, the ability of operators in developed countries to manage brands has enabled them to maintain high profits notwithstanding commodity price volatility and falling prices for cocoa and coffee producers (Ponte 2002; Fold 2002). In apparel and footwear GVCs, some lead firms such as Nike have outsourced all the manufacturing value-added links to focus exclusively on the most profitable value-added links, namely product design and branding (Gereffi 1999). The same has happened in the PC industry.

Retailers have also grown their power in GVCs, and, in some industries, they now control the highest economic rents. Suppliers are requested to pay marketing fees, slotting allowances, and swell allowances, among others, which allow supermarkets to reduce risks and cut costs. In many agro-processing value chains, Northern supermarket chains have squeezed suppliers in developing countries in order to be more competitive and secure higher profit margins.

In sum, marketing and distribution in many GVCs have evolved into services where the most profitable value-added links are positioned and have become increasingly sophisticated and knowledge-intensive activities. This is why firms in LICs and LDCs have struggled to compete with Northern firms both in their domestic markets and in export markets. In this respect, RVCs are important for LIC and LDC firms because regional markets require less sophisticated branding and marketing capabilities, consumer taste tends to be similar to domestic markets, and there are established distribution networks. Information on prices and costs in neighbourhood markets is also more easily accessible.

### 5.4.2 Sustainable Development Goals

The potential impact on SDGs of the increasing importance of marketing and retail in GVCs is two-fold. On the one hand, smallholders and small suppliers can either be squeezed by big brands and supermarket chains or be excluded altogether. Yet, participation in these GVCs is potentially important because it tends to be associated with higher producer prices and upgrading processes. This would support poverty reduction, or SDG 1. In this context, supplier development programmes can assist

smallholders and SMEs to participate in retail value chains (see Box 2).

On the other hand, the entry of modern retailer chains in LICs and LDCs could displace traditional retailers. Retail tends to be characterised by significant female participation in employment, ownership, and management (Figure 3). Informal businesses and women have fewer assets to adjust to trade in services liberalisation (Lipowiecka and Kiriti-Nganga 2016). However, modern retail is a large employer of low-skilled, female workers. The net effect on gender equality will vary by country.

**Figure 3: Female employment, ownership, and top management in SSA**



Source: Coste and Dihel (2013).

### Box 2: Retail chains—inclusive growth and supplier development programmes

Massmart is the second-largest distributor of consumer goods in Africa, the leading retailer of general merchandise, liquor, and home improvement equipment and supplies, and the leading wholesaler of basic foods. Massmart focuses on high-volume, low-margin, low-cost distribution of mainly branded consumer goods in 12 SSA countries. The group comprises 374 retail and wholesale stores and is 53 percent owned by Walmart Stores Inc.

Participation in supplier development was one of the government conditions upon which Walmart was allowed to enter into the South African market. In 2012, Massmart established a R200 million Supplier Development Fund (SDF) to assist South African SMEs, particularly SMEs that are either black-owned or local manufacturers. The fund is implemented over five years (2012 to 2017). The SDF has invested in farming, manufacturing, and services firms with the following objectives:

- Improve quality of products;
- Assist local suppliers to expand production capacity (existing and potential);
- Assist suppliers to reduce input costs;

Box 2: *Continued*

- Enable Massmart to increase and diversify its local sourcing capacity;
- Provide a route to market to deserving products (locally and internationally); and
- Establish and build long-term effective supplier partnerships.

The SDF intervenes on supplier development with seven key initiatives:

- 1) Direct support to manufacturing small, medium, and micro enterprises and large suppliers in the clothing and textiles sector;
- 2) Developing wine brands (supports distribution, warehousing, and marketing);
- 3) Certification with the South African Bureau of Standards;
- 4) Management skills;
- 5) Support to newly listed suppliers through in-store merchandising;
- 6) Financial facilities; and
- 7) Information dissemination.

Source: *Massmart Walmart (2014, 2015)*.

#### 5.4.3 Policy implications

From a policy perspective, it is important that trade liberalisation measures go hand in hand with capacity building initiatives. In the retail sector, most LICs and LDCs liberalised Mode 3, which has enabled large retail chains to enter their markets. As the productive capacities of most LICs and LDCs relate to agro-processing value chains, the impact of foreign supermarket chains on local production is bound to become increasingly relevant, especially as supermarket chains expand to lower-income areas and rural towns. Supermarkets will change the way food industries in LDCs and LICs operate, moving away from arm's-length relationships into vertically coordinated supply chain arrangements, imposing new and stricter standards and additional costs, and forcing upgrading and probably some industry concentration. To ensure participation and upgrading, governments need to work at different stages of the food value chain, from primary production to retail.

Developing countries' strategies vis-à-vis supermarket chains range from laissez-faire in most Latin American and African countries, to protectionist in India, Malaysia, and Vietnam (Altenburg et al. 2016: 28). South Korea and China have adopted a more nuanced position, liberalising the retail sector while supporting local suppliers. Governments have been successful in securing local content commitments by foreign supermarket chains through soft incentives or conditionality in licences for opening more outlets. Indeed, there is evidence that in Southern Africa, as governments started discussing mandatory local content policies, supermarkets voluntarily committed to increasing local content (das Nair and Chisoro 2015). Moreover, trade liberalisation should be accompanied by effective competition policies (das Nair and Chisoro 2015). Anti-competitive practices by supermarket chains can impact negatively on consumers, independent retailers, and suppliers.

Improving market access for goods in RVCs can be supportive of regional upgrading processes whereby firms with limited marketing and distribution capabilities find it easier to export and grow. Moreover, in these regional contexts, supermarket chains can facilitate regional exports and upgrading (Barrientos et al. 2016).

There are also important linkages with other services, for example between ICT, marketing, and distribution. E-commerce is connecting an increasing number of self-employed women and women cooperatives to national and international markets and allows them to retain larger profit margins (Lipowiecka and Kiriti-Nganga 2016). Business to business (B2B) and business to consumer e-commerce has been growing very fast but has been geographically concentrated in the North and China (UNCTAD 2015). In SSA, various e-commerce solutions have been adapted to develop commerce over feature phones; there are thousands of e-commerce start-ups although only a few have reached scale (UNCTAD 2011).

## 5.5 Aftermarket Services

### 5.5.1 Participation and upgrading and SDGs

Aftermarket services are becoming increasingly strategic value-added links in many GVCs. They allow lead firms to create longer-term relationships with customers and to generate additional revenues. In higher-tech GVCs such as machinery, firms provide repair and maintenance services but have also expanded into technical testing services, services incidental to manufacturing, and running customer processes. Two segments of the aftermarket services are particularly important for LDCs and LICs: customer care services and repair and maintenance.

Customer care services have underlined the growth of the BPO industry, with investment in call centres in many large and small developing countries. These are the lowest value-added

segment of the services offshore industry, but their importance is two-fold: they can generate significant employment, and they can serve as a platform for upgrading into higher-skilled services such as HR, accounting, information technology (IT) services, and so forth (Fernandez-Stark, Bamber, and Gereffi 2011). Moreover, the industry has been resilient to the 2008/09 economic crisis because firms across the world increased outsourcing and offshoring as a cost-cutting strategy (Gereffi and Fernandez-Stark 2010). This has been facilitated by the contractual B2B and multi-year nature of the industry. In this respect, there are export opportunities for LICs and LDCs which would contribute to SDGs 5 (gender) and 8 (inclusive economic growth). The industry can offer sizeable employment opportunities for women and youth, and some countries have designed incentives to promote investment in secondary cities (Fernandez-Stark, Bamber, and Gereffi 2011).

Repair and maintenance services are an important activity for many lead firms, particularly auto, equipment, and electronics original equipment manufacturers (OEMs). Table 3 provides an illustrative example of the size of the repair and maintenance market for mining and mineral processing equipment. The expenses on repair and maintenance (stay in business expenditures) over an average 30-year lifespan of a mine totalled up to 35 times the initial expenditure. When markets are sufficiently large, lead firms invest in subsidiaries to capture these revenue streams. This gives LICs and LDCs important locational advantages because the investment has to take place close to customers. In some GVCs, this investment impacts positively on employment and upskilling of the workforce—especially when lead firms invest in training academies and overseas training. This contributes to SDG 8 (inclusive economic growth), with a particularly positive contribution to youth employment.

**Table 3: Aftermarket sales for mining and mineral processing machinery**

Processing Equipment	Initial US\$	Total Stay in Business US\$	Ratio Stay in Business: Initial
Grinding mill, rod & ball	5.5	197.6	35 :1
Cone crushers	4.0	65.0	16 :1
Mobile crushing plants	1.2	17.7	15 :1
Gyratory crushers	13.0	170.0	13 :1
Underground loaders	1.9	27.0	14 :1
Shovels, hydraulic	15.9	179.3	11 :1
Continuous miners, u/ground	3.2	35.9	11 :1
Roof bolters	1.4	16.5	11 :1

Source: Virgo, Armstrong, and Alftan (2013).

### 5.5.2 Policy implications

From a policy perspective, LICs and LDCs would benefit from attracting investment in BPO and repair and maintenance services under Mode 3, which, when compared to other modes,

maximises the impact on employment and upskilling. Apart from liberalisation measures, the success of this strategy would require concomitant investment in ICT and education, and regulatory reforms (see Box 3).

### Box 3: Senegal's entry into BPO services

Senegal provides an illustrative example of success in BPO services exports (Doumbouya et al. 2015). These were worth US\$520 million in 2013 and represented approximately 47 percent of Senegal's cross-border services trade.<sup>3</sup> The IT and BPO services sector have emerged recently as a result of policy reforms, new investment in ICT infrastructure, an incubation centre, and availability of advanced skills.<sup>4</sup> In 2011, there were an estimated 96 ICT companies in Senegal involved in sales, rental, and repair of equipment; creative activities; integration of information systems; software development; and computer consulting. A small number of BPO firms were contributing significantly to exports of call centre services, back-office operations, and telemarketing, studies, surveys, and polling services. The ICT industry has been successful in attracting FDI, but there are also significant levels of domestic capabilities. There have been important successes, for example GAINDE 2000, a public-private partnership between the Senegalese Customs Administration and private ICT firms to develop the Single Window system for border clearance formalities. The system won several awards and is now deployed in Kenya, Togo, and Burkina Faso (Gainde 2000 n.d.). Senegalese companies have also branched out to mobile money transfer and agricultural market information systems.

<sup>3</sup> This figure includes both ICT services and ICT-enabled services.

<sup>4</sup> These included the introduction of a new telecommunication code in 1996, the privatisation of the incumbent telecommunications provider (Sonatel) in 1997, amending the Labour Code to support the labour requirements of call centres, and the introduction of investment incentives for ICT firms (Doumbouya et al. 2015).

## 6. CONCLUSIONS AND POLICY IMPLICATIONS

Services play an important role in developing countries' participation and upgrading in GVCs/RVCs. They are critical inputs to overall value chain competitiveness. Services such as R&D, marketing, and retail are value-added links where most economic rents are generated in GVCs. Moreover, they create export opportunities for LDCs and LICs, be it through Modes 1 and 4 in professional services or by facilitating trade in goods and RVCs. In doing so, each service sector contributes differently to progress on the SDGs, with the contribution of infrastructural services encompassing most GVCs and playing a crucial role in enabling coordination of global supply chains and value-added links. Table 4 summarises the key findings of the service sectoral analysis in terms of contribution to upgrading in GVCs/RVCs, attainment of SDGs, and policy implications.

The key messages for policymakers arising from this paper are summarised as follows:

### 1. No “one size fits all” strategy

Value chain upgrading strategies need to be adjusted to take account of countries' capabilities, industries, segment of the value chain targeted, and end markets. Hence, some services will be more important than others.

### 2. Trade policy design needs to be informed by detailed value chain analysis

Trade negotiations need to take a holistic view across goods and services. Trade policy design should be based on detailed understanding of which services sectors' liberalisation and regulation can be instrumental to value chain competitiveness, and where increased services exports and imports are supportive of goods exports.

### 3. Domestic regulations

Domestic regulations are important to ensure access by SMEs, women, and youth; new entry and competition; and effective market access liberalisation in RVCs. The impact on SDGs critically depends on the

design and enforcement of these regulations. Moreover, Heuser and Mattoo (2017) argue that exporting countries should place more emphasis on international cooperation in regulatory cooperation and credible regulatory commitments to safeguard the interests of consumers in importing countries. These processes would be critical to support further processes of services liberalisation.

### 4. Need for broader policy interventions

Trade policies and domestic regulations need to be accompanied by policies and measures to address bottlenecks to firm competitiveness and increase firm productivity. These include, among others, skills development, in particular at the technical level; increased access to ICT, finance, and business development services; investment in domestic technological upgrading in terms of equipment, management and organisations; cheaper and more reliable physical infrastructure; improvement of administrative procedures and reduced red tape, in particular across borders; improved access to market information, B2B linkages and export promotion; and institutional capacity building for government and business associations. Domestic policy interventions can also increase the domestic value-added content of exports by developing linkages between exporting firms and local SMEs (Blyde 2014).

### 5. Standards and participation in GVCs

Participation in GVCs often requires compliance with international standards. This requirement affects not only suppliers to global buyers but also their Tier 2 service inputs providers. This implies that local service providers, such as IT companies, professional service providers, and logistics companies, have to meet very high standards in order to supply their export-oriented customers. While compliance costs are generally high across the board, they can be particularly burdensome for SMEs in developing countries. Case studies from Latin America and Asia (Blyde 2014; Low and Pasadilla 2015)

**Table 4: Summary of key conclusions**

Upgrading in GVCs/RVCs	Impact on selected SDGs	Trade and investment policies
<p>Infrastructural services, namely transport, finance, information and communication technology (ICT), and construction services are essential to connect producers to markets and increase firm productivity.</p> <p>Firm productivity and upgrading are also positively correlated with access to professional, technical testing and analysis, management consultancy, and advertising services.</p> <p>R&amp;D and product innovation services are critical to ensure long-term competitiveness, although these services have particularly high barriers to entry for LIC and LDC producers.</p> <p>Marketing, distribution, and aftermarket services have become increasingly profitable services for lead firms. Lead firms controlling marketing and distribution services, in particular, exercise significant power in GVCs/RVCs, with potentially exclusionary effects on LDC and LIC producers.</p>	<p>Growth in domestic production and trade of service sectors can support LIC and LDC producers' participation and upgrading in GVCs/RVCs. This impacts on SDG 1 (poverty reduction), SDG 8 (inclusive economic growth), and SDG 10 (reducing inequalities within and between countries).</p> <p>When governments and lead firms adopt targeted measures, service growth and upgrading can impact on SDG 5 (gender equality). Illustrative examples include R&amp;D services for agricultural products with high female participation; access to training and ICT to expand services exports by female professionals; and skills development for female employees in BPO and knowledge process outsourcing (KPO) industries.</p>	<p>Liberalisation across all modes of supply is important to increase competitiveness in the domestic and export markets</p> <p>Liberalisation in WTO GATS Mode 1 trade in services is very important for professional services because it can potentially support gender and small and medium-sized enterprise (SME) inclusiveness. Mode 1 liberalisation in R&amp;D, technical testing, and management services, can improve quality and price of service inputs for domestic firms.</p> <p>Liberalisation under WTO GATS Mode 3 is important for all services, particularly to foster investment in infrastructural services or to attract strategic investors to spearhead new industries such as BPO and KPO.</p> <p>National treatment limitations and domestic regulations may be required to achieve public policy objectives such as universal access provisions and competition policy. Hence, institutional capabilities are essential. Sometimes, restriction on ownership is required to ensure optimal investment levels.</p> <p>Other measures, such as incentives for foreign retail chains to invest in supplier development programmes, may also be desirable.</p> <p>Mode 4 liberalisation would support growth and access to key sectors such as professional and R&amp;D services.</p> <p>Upgrading in skills and knowledge-intensive services, such as product development and marketing, is easier in the context of RVCs. Hence, LICs and LDCs should focus on deepening regional integration for goods and services trade.</p>

highlight standards compliance as a critical area for support from policymakers.

#### **6. Broad stakeholder consultations**

Designing value chains and trade strategies requires broad, substantial, and continuous consultations with government ministries and agencies, foreign and domestic lead firms, and domestic suppliers. This will ensure that strategies are effective and stakeholders are committed to their implementation and monitoring.

#### **7. Role for public-private partnerships**

Policymakers should explore areas where partnerships with lead firms can facilitate participation and upgrading processes. Examples include partnerships with offshore industry firms to promote skills development; with supermarkets to promote local sourcing; and with lead auto, machinery, and

electronics OEMs to localise high-value aftermarket services.

#### **8. Regional value chains and regional cooperation**

Regional value chains offer significant opportunities for LIC and LDC firms with limited product development, marketing, and distribution capabilities to participate and upgrade in value chains. Deepening regional integration in goods and services can support the development of RVCs. A recent review of case studies in Africa shows that successful services exports started in the region and in one mode of supply, and subsequently generated services exports in other, complementary modes, sometimes beyond the continent (Stephenson and Tumuhimbise 2015). Moreover, regional cooperation should target shared infrastructure and scale and/or knowledge-intensive services such as sectoral R&D.

## REFERENCES

- Ali-Yrkkö, J., P. Rouvinen, T. Seppälä, and P. Ylä-Anttila. 2011. "Who Captures Value in Global Supply Chains? The Case of Nokia N95 Smartphone." *Journal of Industry, Competition and Trade* 11(3): 263-78.
- Altenburg, T., E. Kulke, A. Hampel-Milagrosa, L. Peterskovsky, and C. Reeg. 2016. "Making Retail Modernisation in Developing Countries Inclusive: A Development Policy Perspective." *German Development Institute Discussion Paper 2/2016*. Bonn: German Development Institute.
- Appelbaum, R. 2008. "Giant Transnational Contractors in East Asia: Emergent Trends in Global Supply Chains." *Competition and Change* 12(1): 69-87.
- Barrientos, S., P. Knorringa, B. Evers, M. Visser, and M. Opondo. 2016. "Shifting Regional Dynamics of Global Value Chains: Implications for Economic and Social Upgrading in African Horticulture." *Environment and Planning* 48(7): 1266-83.
- Bazan, L., and L. Navas-Alemán. 2004. "The Underground Revolution in the Sinos Valley—A Comparison of Upgrading in Global and National Value Chains." In *Local Enterprises in the Global Economy: Issues of Governance and Upgrading*, edited by H. Schmitz (pp. 110-139). Cheltenham: Edward Elgar.
- Blyde, J.S. 2014. *Synchronized Factories. Latin America and the Caribbean in the Era of Global Value Chains*. Springer Open. <https://link.springer.com/content/pdf/bfm%3A978-3-319-09991-0%2F1.pdf>
- Borras, M. 1997. "Left for Dead: Asian Production Networks and the Revival of U.S. Electronics." In *The China Circle*, edited by B. Naughton (pp. 139-163). Washington, DC: Brookings Institution Press.
- Coste, A., and N. Dihel. 2013. "Services Trade and Gender." In *Women and Trade in Africa: Realizing the Potential*, edited by P. Brenton, E. Gamberoni, and C. Sear (pp.97-115). Washington, DC: The World Bank.
- Coste, A., N. Dihel, and A.G. Goswami. 2016. "Professional Services Knowledge Platform for Sub-Saharan Africa." In *The Unexplored Potential of Trade in Services in Africa: From Hair Stylists and Teachers to Accountants and Doctors*, edited by N. Dihel and A.G. Goswami (pp.119-157). Washington, DC: The World Bank.
- das Nair, R., and S. Chisoro. 2015. "The Expansion of Regional Supermarket Chains, Changing Models of Retailing and the Implications for Local Supplier Capabilities in South Africa, Botswana, Zambia, and Zimbabwe." *WIDER Working Paper 2015/114*. Helsinki: United Nations University World Institute for Development Economics Research. <https://www.wider.unu.edu>
- Dihel, N., and A.G. Goswami. 2016. "Introduction." In *The Unexplored Potential of Trade in Services in Africa: From Hair Stylists and Teachers to Accountants and Doctors*, edited by N. Dihel and A.G. Goswami (pp.3-28). Washington, DC: The World Bank.
- Doumbouya, S.F., A. Ndiaye, and D. Primack. 2015. "Business Process Outsourcing and Information Technology Services: A Case Study of Senegal." In *Services Exports for Growth and Development: Case Studies from Africa*, edited by the African Union Commission (pp.153-202). Addis Ababa: AUC.
- Farole, T. 2015. "Factory Southern Africa? SACU in Global Value Chains." *World Bank Group Working Paper*. Washington, DC: The World Bank.

- Fernandez-Stark, K., P. Bamber, and G. Gereffi. 2011. *The Offshore Services Global Value Chain: Economic Upgrading and Workforce Development*. Durham, NC: Center on Globalization, Governance & Competitiveness, Duke University.
- Fessehaie, J., A. Rustomjee, and L. Kaziboni. 2016. "Mining-related National Systems of Innovation in Southern Africa. National Trajectories and Regional Integration." *WIDER Working Paper 2016/84*. Helsinki: United Nations University World Institute for Development Economics Research. <https://www.wider.unu.edu/sites/default/files/wp2016-84.pdf>
- Fold, N. 2002. "Lead Firms and Competition in 'Bi-polar' Commodity Chains: Grinders and Branders in the Global Cocoa-chocolate Industry." *Journal of Agrarian Change* 2(2): 228-47.
- Gainde 2000. n.d. "Our Activities." [www.gainde2000.com](http://www.gainde2000.com)
- Gereffi, G. 1994. "The Organization of Buyer-driven Global Commodity Chains: How U.S. Retailers Shape Overseas Production Networks." In *Commodity Chains and Global Capitalism*, edited by G. Gereffi and M. Korzeniewicz (pp. 95-122). Westport, CT: Praeger.
- Gereffi, G. 1999. "International Trade and Industrial Upgrading in the Apparel Commodity Chain." *Journal of International Economics* 48(1): 37-70.
- Gereffi, G. 2013. "Global Value Chains in a Post-Washington Consensus World." *Review of International Political Economy* 21(1): 9-37.
- Gereffi, G., and C. Fernandez-Stark. 2010. "The Offshore Services Value Chain: Developing Countries and the Crisis." *Policy Research Working Paper 5262*. Washington, DC: The World Bank.
- Gereffi, G., J. Humphrey, R. Kaplinsky, and T.J. Sturgeon. 2001. "Introduction: Globalisation, Value Chains and Development." *IDS Bulletin* 32(3): 1-8.
- Gibbon, P. 2008. "Governance, Entry Barriers, Upgrading: A Re-interpretation of Some GVC Concepts from the Experience of African Clothing Exports." *Competition & Change* 12(1), 29-48.
- Handley, A. 2015. "Varieties of Capitalists? The Middle-class, Private Sector and Economic Outcomes in Africa." *Journal of International Development* 27(5): 609-27.
- Heuser, C., and A. Mattoo (2017). "Services Trade and Global Value Chains." *Policy Research Working Paper 8126*. Washington, DC: The World Bank.
- Humphrey, J., and H. Schmitz. 2002. "How Does Insertion in Global Value Chains Affect Upgrading in Industrial Clusters?" *Regional Studies* 36(9): 1017-27.
- ICTSD. 2016. "Services and Sustainable Development." *Framework Paper*. Geneva: International Centre for Trade and Sustainable Development.
- Ivarsson, I., and C.G. Alvstam. 2010. "Supplier Upgrading in the Home-furnishing Value Chain: an Empirical Study of IKEA's Sourcing in China and South East Asia." *World Development* 38(11): 1575-87.
- Kaplinsky, R. 2005. *Globalization, Poverty, and Inequality*. Cambridge: Polity Press.
- Kaplinsky, R., and M. Morris. 2001. "A Handbook for Value Chain Research." *Working Paper Prepared for the IDRC*. Brighton: Institute for Development Studies.
- Kaplinsky, R., A. Terheggen, and J.P. Tijaja. 2010. "What Happens When the Market Shifts to China? The Thai Cassava and Gabon Timber Value Chains." *Policy Research Working Paper No. 5206*. Washington, DC: World Bank.

- Lipowiecka, J., and T. Kiriti-Nganga. 2016. "The Gender Dimension of Services." *Issue Paper*. Geneva: International Centre for Trade and Sustainable Development.
- Low, P. 2013. "The Role of Services." In *Global Value Chains in a Changing World*, edited by D. Elms and P. Low (pp.61-82). Geneva: World Trade Organization.
- Low, P., and G.O. Pasadilla. 2015. *Services in Global Value Chains: Manufacturing-related Services*. Singapore: Asia-Pacific Economic Cooperation Secretariat.
- Massmart Walmart. 2014. *Supplier Development Fund Annual Report 2013*. Massmart Holdings Ltd. <http://www.massmart.co.za>
- Massmart Walmart. 2015. *Supplier Development Fund Annual Report 2014*. Massmart Holdings Ltd. <http://www.massmart.co.za>
- Miroudot, S. 2016. "Services in Global Value Chains: From Inputs to Value-Creating Activities." *Organisation for Economic Co-operation and Development (OECD) Trade Policy Paper*. Paris: OECD.
- Morris, M., and C. Staritz. 2014. "Industrialization Trajectories in Madagascar's Export Apparel Industry: Ownership, Embeddedness, Markets, and Upgrading." *World Development* 56(C): 243-57.
- Morris, M., C. Staritz, and J. Barnes. 2011. "Value Chain Dynamics, Local Embeddedness, and Upgrading in the Clothing Sectors of Lesotho and Swaziland." *International Journal of Technological Learning, Innovation and Development* 4(1/2/3): 96-119.
- National Board of Trade. 2010a . *Servicification of Swedish Manufacturing*. Stockholm: National Board of Trade.
- National Board of Trade. 2010b. *At Your Service: The Importance of Services for Manufacturing Companies and Possible Trade Policy Implications*. Stockholm: National Board of Trade.
- National Board of Trade. 2012. *Everybody is in Services—The Impact of Servicification in Manufacturing on Trade and Trade Policy*. Stockholm: National Board of Trade.
- Navas-Alemán, L. 2011. "The Impact of Operating in Multiple Value Chains for Upgrading: the Case of the Brazilian Furniture and Footwear Industries." *World Development* 39(8): 1386-97.
- Pickles, J., A. Smith, M. Buček, P. Roukova, and R. Begg. 2006. "Upgrading, Changing Competitive Pressures, and Diverse Practices in the East and Central European Apparel Industry." *Environment and Planning* 38: 2305-24.
- Ponte, S. 2002. "The 'Latte Revolution'? Regulation, Markets and Consumption in the Global Coffee Chain." *World Development* 30(7): 1099-122.
- Puri, L. 2004. "Trade in Services, Gender and Development: a Tale of Two Modes." In *Trade and Gender—Opportunities and Challenges for Developing Countries*, edited by A.-N. Tran-Nguyen and A. Beviglia Zampetti. Geneva: United Nations Conference on Trade and Development. [http://www.unctad.org/en/docs/edm20042\\_en.pdf](http://www.unctad.org/en/docs/edm20042_en.pdf)
- Staritz, C., Plank, L., and Morris, M. (2016). *Global value chains, industrial policy and sustainable development - Ethiopia's apparel export sector*. Geneva: International Centre for Trade and Sustainable Development.

- Stephenson, S., and J. Drake-Brockman. 2014. "The Services Trade Dimension of Global Value Chains: Policy Implications for Commonwealth Developing Countries and Small States." *Commonwealth Trade Policy Discussion Papers 2014/04*. London: Commonwealth Secretariat
- Stephenson, S., and C. Tumuhimbise. 2015. "Overview of Services Exports for Growth and Development. Case Studies from Africa." In *Services Exports for Growth and Development. Case Studies from Africa*, edited by S. Stephenson, and C. Tumuhimbise (pp.1-12). Addis Ababa: African Union Commission.
- Sturgeon, T.J. 2002. "Modular Production Networks: A New American Model of Industrial Organization." *Industrial and Corporate Change* 11(3): 451-96.
- Sturgeon, T.J., and M. Kawakami. 2010. "Global Value Chains in the Electronics Industry: Was the Crisis a Window of Opportunity for Developing Countries?" In *Global Value Chains in a Post-crisis World. A Development Perspective*, edited by O. Cattaneo, G. Gereffi, and C. Staritz (pp.245-301). Washington, DC: The World Bank.
- Stephenson, S., and C. Tumuhimbise. 2015. "Overview of Services Exports for Growth and Development. Case Studies from Africa." In *Services Exports for Growth and Development. Case Studies from Africa*, edited by S. Stephenson, and C. Tumuhimbise (pp.1-12). Addis Ababa: African Union Commission.
- National Board of Trade. 2010a . *Servicification of Swedish Manufacturing*. Stockholm: National Board of Trade.
- National Board of Trade. 2010b. *At Your Service: The Importance of Services for Manufacturing Companies and Possible Trade Policy Implications*. Stockholm: National Board of Trade.
- National Board of Trade. 2012. *Everybody is in Services—The Impact of Servicification in Manufacturing on Trade and Trade Policy*. Stockholm: National Board of Trade.
- UNCTAD. (United Nations Conference on Trade and Development). 2011. *Information Economy Report 2011. ICTs As an Enabler for Private Sector Development*. Geneva: UNCTAD.
- UNCTAD. (United Nations Conference on Trade and Development). 2015. *Information Economy Report 2015. Unlocking the Potential of E-commerce for Developing Countries*. Geneva: UNCTAD.
- UNCTAD. (United Nations Conference on Trade and Development). 2016. *Trade and Development Report 2016. Structural Transformation for Inclusive and Sustainable Growth*. Geneva: UNCTAD.
- Virgo, A., C. Armstrong, and K. Alftan. 2013. *Mining Machinery. Process Plant Exposure Preferable to Mining Operations*. Hamburg: Berenberg Equity Research.







Other recent publications from ICTSD's Programme on Inclusive Economic Transformation include:

- *Private Standards, Trade, and Sustainable Development: Policy Options for Collective Action*  
Fabrizio Meliado, 2017
- *Advancing Sustainable Development Through Services Regulation*  
ICTSD, 2017
- *Realising the Potential of Services SMEs in Developing Economies*  
Sonja Grater, Ali Parry, and Wilma Viviers, 2017
- *Trade Policies and Sustainable Development in the Context of Global Value Chains*  
ICTSD, 2016
- *The Gender Dimensions of Global Value Chains*  
Penny Bamber and Cornelia Staritz, 2016
- *The Gender Dimensions of Services*  
Julia Lipowiecka and tabitha Kiriti-Nganga, 2016
- *Inclusive and Sustainable Growth: The SDG Value Chains Nexus*  
Raphael Kaplinsky, 2016

#### **About ICTSD**

The International Centre for Trade and Sustainable Development (ICTSD) is an independent think-and-do-tank, engaged in the provision of information, research and analysis, and policy and multistakeholder dialogue, as a not-for-profit organisation based in Geneva, Switzerland. Established in 1996, ICTSD's mission is to ensure that trade and investment policy and frameworks advance sustainable development in the global economy.