



Building Competitiveness in Africa's Agriculture

A GUIDE TO VALUE CHAIN CONCEPTS AND APPLICATIONS



THE WORLD BANK

C. Martin Webber and Patrick Labaste

Building Competitiveness in Africa's Agriculture

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THE WORLD BANK
Washington, DC

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1 2 3 4 12 11 10 09

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ISBN: 978-0-8213-7952-3

eISBN: 978-0-8213-7964-6

DOI: 10.1596/978-0-8213-7952-3

Library of Congress Cataloging-in-Publication Data

Webber, C. Martin.

Building competitiveness in Africa's agriculture : a guide to value chain concepts and applications / C. Martin Webber and Patrick Labaste.

p. cm. — (Agriculture and rural development)

Includes bibliographical references and index.

ISBN 978-0-8213-7952-3 (pbk.) — ISBN 978-0-8213-7964-6 (electronic)

1. Agricultural industries—Africa. 2. Agriculture—Economic aspects—Africa. I. Labaste, Patrick, 1952- II. World Bank. III. Title.

HD9017.A2W43 2009

338.1096—dc22

2009019928

Cover photographs: Tea-picker in Rwanda by Günter Guni, ©iStockphoto.com / guenterguni; vegetable garden in rural Kwa-Zulu Natal, South Africa, by Trevor Samson / World Bank.

Cover design: Critical Stages, based on a template by Patricia Hord Graphik Design.

Building Competitiveness in Africa's Agriculture is available as an interactive textbook at <http://www.worldbank.org/pdt>. The electronic version allows communities of practice and colleagues working in sectors and regions, as well as students and teachers, to share notes and related materials for an enhanced multimedia learning and knowledge-exchange experience.

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ACKNOWLEDGMENTS

This Guide was prepared by J. E. Austin Associates, Inc., for the Agriculture and Rural Development Group of the Sustainable Development Network of the World Bank. The work was directed by Patrick Labaste, Sustainable Development Department of the Africa Region of the World Bank. The principal author and team leader was Martin Webber, Executive Vice President of J. E. Austin Associates, Inc.

This work was funded by the World Bank, by contributions from the Bank-Netherlands Partnership Program (BNPP), and from the All-ACP Agricultural Commodities Programme (AAACP) of the European Union.

Contributors from J. E. Austin Associates, Inc., included Marcos Arocha, Nayha Arora, Virginia Brandon, Lisa Carse, Grant Cavanaugh, Michael Ducker, David Feige, Michael Gorman, Carlton Jones, Mollie Logue, Jennifer Lynch, Alicia Miller, Kirk Nathanson, Matthew Shapiro, Jane Shearer, Justin Stokes, and Gina Tumbarello. Kevin X. Murphy, President of J. E. Austin Associates, Inc., deserves special appreciation. World Bank collaborators included Malick

Antoine and Jean-Luc Bosio. Jean Michel Voisard and Martin Donarski also provided valuable guidance and comments.

The authors convened a roundtable of industry experts, who provided suggestions and experiences that enhanced this Guide. The roundtable participants included: Grahame Dixie, Richard Henry, Steve Jaffee, John Lamb, Svetlana Meades, Paul Siegel, Yolanda Strachan, and Uma Subramanian of the World Bank Group; Susan Bornstein (TechnoServe); Jeanne Downing (USAID); Paul Guenette (ACDI-VOCA); Olaf Kula (ACDI-VOCA); Frank Lusby (Action for Enterprise); and Lynn Salinger (AIRD).

Numerous individuals contributed their expertise and experience, particularly to the case studies. They shared their own stories, and their analyses and observations. Their personal experiences and generous willingness to share their stories and conclusions make this Guide a particularly rich source of ideas and information. We sincerely apologize for any omissions, which, of course, are inadvertent, in citing contributors.

ACRONYMS AND ABBREVIATIONS

AAK	Agricultural Association of Kenya
ADAR	Agribusiness Development Activity in Rwanda
AGOA	African Growth and Opportunity Act
AIA	Agro Industria Associadas
AMAP/BDS	Accelerated Microenterprise Advancement Project/Business Development Services
APEP	Agricultural Productivity Enhancement Program
BCPA	Botswana Cattle Producers Association
BDS	Business Development Services
BMC	Botswana Meat Commission
BMU	Beach Management Unit
CAADP	Comprehensive Africa Agricultural Development Programme
CFA	Communauté Financière d’Afrique
CTBI	Coffee Taxation and Benchmarking Initiative
DFID	Department for International Development
DPL	Dipped Products Ltd.
DRC	Domestic Resource Cost
EAGA	East African Growers Association
EFEG	Exotic Fruit Exporters Association of Ghana
ESSD Africa	Environmentally and Socially Sustainable Development Department, Africa Region (World Bank)
EU	European Union
EurepGAP	Euro-Retailer Produce Working Group on Good Agricultural Practices
FAO	Food and Agriculture Organization of the United Nations
FAOSTAT	FAO Statistical Database
FCFA	CFA Franc
FDI	Foreign Direct Investment
FOB	Free on board
FPEAK	Fresh Produce Exporters Association of Kenya
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GMP	Good Manufacturing Practice
GPSCA	Gabinete de Promoção do Sector Comercial Agrário
GTZ	Gesellschaft für Technische Zusammenarbeit

HACCP	Hazard Analysis and Critical Control Point
HAG	Horticultural Association Ghana
HCDA	Horticultural Crops Development Authority
IDA	International Development Association (World Bank)
IFC	International Finance Corporation
IFPRI	International Food Policy Research Institute
INCAJU	National Cashew Institute
KARI/NHRC	Kenya Agricultural Research Institute/National Horticultural Research Centre
KEPHIS	Kenya Plant Health Inspectorate Services
KILICAFE	Association of Kilimanjaro Specialty Coffee Growers (Tanzania)
LINTCO	Lint Company of Zambia
M&E	Monitoring and evaluation
MCI	Mongolian Competitiveness Initiative
MDG	Millennium Development Goals
MT	Metric ton
NEPAD	New Partnership for Africa's Development
NGO	Nongovernmental organization
OCAB	Office Centrale des Producteurs-Exportateurs d'Ananas et de Bananes
OCIR-CAFÉ	Rwanda Coffee Development Authority
PAID	Process indicators, action indicators, investment indicators, delivered results
PCPB	Pest Control Products Board
PEARL	Partnership to Enhance Agriculture in Rwanda through Linkages
PISDAC	Pakistan Initiative for Strategic Development and Competitiveness
PoP	Point of purchase
PSD	Private Sector Development
R&D	Research and Development
RCA	Revealed comparative advantage
SADC	South African Development Community
SAGCH	Southern Africa Global Competitiveness Hub
SME	Small and medium enterprise
SMEX	Small and medium enterprise exporters
SPEED	Support for Private Enterprise Expansion and Development
SPEG	Sea Freight Pineapple Exporters of Ghana
SSA	Sub-Saharan Africa
SWOT	Strengths/weaknesses/opportunities/threats
TIP	Trade and Investment Program
TSC	Sri Lankan Spice Council
TZS	Tanzanian shilling
UBA	Union Bananière Africaine
UFEA	Uganda Flower Exporters Association
UFPEA	Uganda Fish Processors and Exporters Association
UNBS	Uganda National Bureau of Standards
USAID	U.S. Agency for International Development
USDA	United States Department of Agriculture
WCO	World Customs Organization
ZEGA	Zambian Export Growers Association
ZPA	Zambia Privatization Agency



SECTION I

Introduction and Overview

For many years and until quite recently, agriculture fell out of favor with development practitioners, receiving only 4 percent of official development assistance and 4 percent of public expenditure in sub-Saharan Africa (SSA) (World Development Report [WDR] 2008). However, as exemplified by the 2008 WDR dedicated to Agriculture for Development, the development community has refocused on agriculture as an effective means of fighting poverty, and we may expect the above pattern to be reversed. The 2008 WDR notes, “[f]or the poorest people, GDP growth originating in agriculture is about four times more effective in raising incomes of extremely poor people than GDP growth originating outside the sector.” This renewal of interest in agriculture has been further enhanced by the recent rise of global food prices. As more and better-funded agricultural development projects emerge in the next few years, policy professionals will require new frameworks for designing and evaluating investments in commercial agriculture. This Guide to value chain approaches provides the user with actionable methods and tools to design programs and investment projects that aim to increase the productivity and performance of sub-Saharan African agriculture.

AGRICULTURAL VALUE CHAINS AND AFRICA'S DEVELOPMENT AGENDA

Value chains are a key framework for understanding how inputs and services are brought together and then used to grow, transform, or manufacture a product; how the product

then moves physically from the producer to the customer; and how value increases along the way. The value chain perspective provides an important means to understand business-to-business relationships that connect the chain, mechanisms for increasing efficiency, and ways to enable businesses to increase productivity and add value. It also provides a reference point for improvements in supporting services and the business environment. It can contribute to pro-poor initiatives and better linking of small businesses with the market. Increasingly, the value chain approach is being used to guide and drive high-impact and sustainable initiatives focused on improving productivity, competitiveness, entrepreneurship, and the growth of small and medium enterprises (SMEs).

Despite the successes of many African exporters in selling to new markets, without further improvements to their business environments and to the competitiveness of their export commodities, many SSA countries risk being trapped into producing low-skill, low-value products and services, struggling to obtain a significant value-added share in global trade. It follows that raising the productivity and increasing the efficiency of agricultural value chains are basic to the success of SSA rural economies and to the growth of incomes of their rural populations.

The Comprehensive Africa Agricultural Development Programme (CAADP), a program of the New Partnership for Africa's Development (NEPAD), is directly aimed at raising productivity and increasing the efficiency of agriculture. Through this program, the African Union has agreed to

increase public investment in agriculture by a minimum of 10 percent of their national budgets and to raise agricultural productivity by at least 6 percent. According to 2008 data from IFPRI, African countries and their partners need to focus on boosting the supply response to the rise in international food prices in order to continue growing at the same rate. The CAADP will help committed member states effectively respond to the food price crisis and other pressures, enabling agriculture to contribute substantially to continued economic growth.

The development and business communities involved in the African agriculture and agribusiness sectors have recently experienced a strong resurgence of interest in promoting value chains as an approach that can help design interventions geared to add value, lower transaction costs, diversify rural economies, and contribute to increasing rural household incomes in SSA countries. Enhancing value chain competitiveness is increasingly recognized as an effective approach to generating growth and reducing the rural poverty prevalent in the region. This is a welcome development for practitioners who have long been convinced of the need to look differently at agriculture—not just as a means of survival, but as smaller or larger commercial businesses linked to domestic and global markets—and of the need to identify and tap into new sources of potential growth and value addition in the sector. Hopefully, renewed engagement will lead to a substantial increase in the flow of financial resources and technical assistance devoted to supporting market-driven, competitive agroenterprises and agricultural value chains throughout the African continent.

However, there is danger that this renewed engagement may not last, or may even backfire, if the high expectations placed on promoting value chains are not met. Because the development literature is not clear about the concepts and methods relating to value chains, there is risk that sooner or later the benefits of the value chain approach will be overshadowed by unmet expectations. That in turn could cause the approach to be discarded categorically. Although there is no single way to mitigate such risks, this Guide aims to offer practical advice and tools to businessmen, policy makers, representatives of farmer or trade organizations, and others who are engaged in SSA agroenterprise and agribusiness development. This Guide is particularly designed for those who want to know more about value chain-based approaches, and how to use them in ways that can contribute to sound operational decisions and results for enterprise and industry development, as well as for policy making with respect to doing business, stimulating investment, and enhancing trade in the context of African agriculture.

Using concrete examples, mostly from African countries, this Guide presents, reviews, and systematically illustrates a range of concepts, analytical tools, and methodologies centered on the value chain that can be used to design, prepare, implement, assess, and evaluate agribusiness development initiatives. It presents and comments on various conceptual, methodological, and practical approaches to improving the competitiveness of agricultural supply and value chains. The Guide stresses the importance of value chain-based approaches to agroenterprise and agrofood chain development in SSA. It underscores principles of market focus, partnering, collaboration and information sharing, and innovation.

The tools and case studies discussed in this Guide have been selected for their usefulness in directing and supporting market-driven, private sector initiative and action. While the Guide is designed to speak directly to the needs of the businesses and direct actors in the value chains, it also serves as a resource for those practitioners, planners, and program implementers who work closely with value chain participants who want to improve the productivity of Africa's agriculture.

OPPORTUNITIES AND THREATS ASSOCIATED WITH TRADE AND MARKET GLOBALIZATION FOR AFRICAN ECONOMIES

Fundamental changes in international commerce and finance, including reduced transport costs, advances in telecommunications technology, and lower trade barriers, have fueled a rapid increase in global integration. International flows of goods and services, capital, technology, ideas, and people offer great opportunities for African nations to boost growth and reduce poverty by stimulating productivity and efficiency, providing access to new markets, and expanding the range of consumer choice. Yet at the same time, globalization creates new challenges, including the need to increase the quality and sophistication of African goods and services, to make regulatory reforms designed to take full advantage of global markets, and to introduce cost-effective approaches to cope with the resulting adjustment costs and regional imbalances (Bolnick, Camoens, and Zislin 2005).

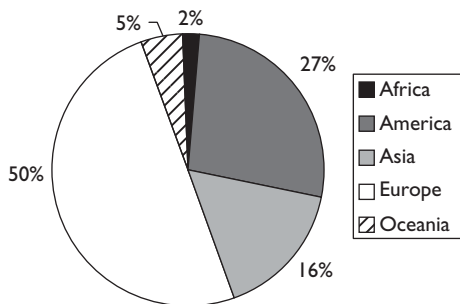
The majority of sub-Saharan Africans are low-income, and often subsistence, farmers. Sixty-five percent of Africans in SSA live in rural areas (World Bank 2007), while 75 percent of the SSA labor force works in agriculture. Sub-Saharan Africa's share of the world's agricultural exports is approximately 2 percent, and imports represent approximately 2 percent of world trade (see figure 1.1; FAO 2006).

Since 1970, trade in SSA has grown at three-quarters of the world's rate and at only about half of Asia's rate. Africa's share in world trade actually fell from 4 percent in the 1970s to 2 percent in 2005 (see figure 1.2). One of the most striking phenomena is the gradual marginalization of sub-Saharan Africa in international agricultural export markets. Even though SSA possesses 12 percent of the world's arable land, the region's share of global agricultural exports has declined gradually from almost 10 percent four decades ago to around 2 percent today (FAO 2006). On the import side, the opposite pattern emerges: sub-Saharan Africa is the only developing region that has seen its share of world agricultural imports increase rather than decrease (FAO 2005).

These patterns are manifest in assessments of Africa's trade openness¹ (measured by the trade to gross domestic product [GDP] ratio), which has also liberalized more slowly than that of any other major developing region, and SSA has supplanted Latin America as the region least open to trade (Gupta and Yang 2006).

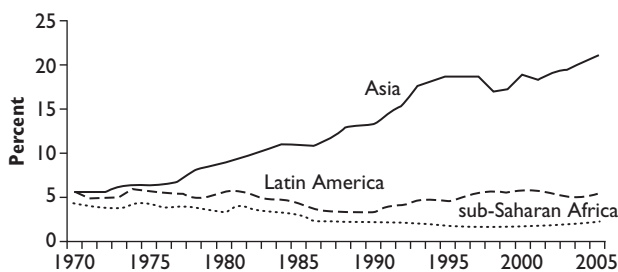
However, the trends are not all negative. In fact, several SSA countries have recently improved their standing in

Figure 1.1 SSA's Share of World Agricultural Exports by Value, 2006



Source: FAOSTAT 2006.

Figure 1.2 Africa's Share of World Trade



Source: Reprinted from: Gupta and Yang (2005), "Unlocking Trade."

terms of trade openness and taken advantage of new export opportunities. As a region, SSA's average trade openness in 2005, as measured by exports as a percentage of GDP, was 39 percent, an increase of 18 percent from 2002 levels (see table 1.1). Yet within Africa, levels of trade openness fluctuate depending on geographic location, resource endowment, infrastructure quality, enabling environment, and other factors.

Those blocks of countries showing notable increases in trade openness are: non-oil-producing countries (36 percent change since 2002); SSA excluding South Africa and Nigeria (33 percent change since 2002); and the countries of the Economic and Monetary Community of Central Africa (29 percent). Africa's oil-producing countries have measured a 61 percent increase in exports since 2002, but when compared to 1997–2002 levels, this is an 8 percent drop, perhaps indicating that recent growth is largely due to volatility in world oil markets (especially the drop in trade during 2002). Relative to other parts of Africa, recent trends of trade openness show poor performance by countries of the West African Economic Monetary Union (–6 percent) and those of the Common Market of Eastern and Southern Africa (6 percent).

Still, Africa's exports remain dominated by primary commodities, with fuels accounting for about 40 percent and agricultural products approximately 20 percent. SSA has seen a sharp decline in the share of agriculture in its total exports, from more than 60 percent four decades ago to around 20 percent today (FAO 2005). Only a few countries, such as Zambia and Kenya, have achieved significant diversification of their exports, while the share of manufactured goods in Africa's total exports has stagnated at about 30 percent, well below that of other developing regions. In addition, manufactured exports from African countries have a narrow base and low value added; often, they are semiprocessed, raw materials, or products that have preferential access to industrial countries.

The high commodity prices of recent years, coupled with Asia's rapid economic growth, have helped Africa expand its exports to Asia, which now imports 25 percent of all African exports. The growing economies of India and China alone account for 10 percent of Africa's exports. As these countries continue to grow and demand more natural resources, African exporters may be poised to increase revenues and expand their production in concert with the Indian and Chinese economic growth.

Even so, without further improvements to their business environments and the competitiveness of their export commodities, many SSA countries risk being competitively

Table 1.1 African Trade Growth—Export of Goods and Services (% of GDP)

Countries and Regions	Historical Average					Change:	Change:
	1997–2001	2002	2003	2004	2005	Historical–2005 (%)	2002–2005 (%)
Sub-Saharan Africa (SSA)	31.5	32.6	33.8	35.9	38.5	22	18
SSA excluding S.Africa and Nigeria	32.6	30.5	34.2	38.2	40.7	25	33
CFA Franc Zone	34.7	37.7	36.1	39.8	43.2	24	15
West African Economic Monetary Union	29.5	33.3	30.5	30.6	31.3	6	–6
Economic and Monetary Community of Central Africa	41.4	43.2	43.2	50.4	55.7	35	29
Common Market of Eastern and Southern Africa	30.4	31.6	31.4	31.8	33.5	10	6
Oil-producing countries	45.7	26.1	33.9	39.6	42.1	–8	61
Non-oil-producing countries	26.7	46.7	50.4	56.6	63.4	137	36

Source: Reprinted from IMF 2005.

trapped—selling low-skill, low-value products and services, with little chance to increase value-added share in global trade. Without market knowledge, particular expertise, or competitive products and services, entire economies will essentially fail to take advantage of the potentially high benefits of global markets and the increases in global trade flows. SSA economies unable to claim a more significant share of global trade will find it difficult to achieve the sustainable and accelerated growth rates that are necessary to reach the Millennium Development Goals (MDGs) and significantly reduce poverty on the continent.

These threats and opportunities hold particularly true for agriculture, the main export revenue source for many SSA countries and the largest income generator for their populations. Increasing the production of, and export revenues from, agricultural goods entails developing marketing channels and outlets. Such development is essential to national strategies to raise incomes and eradicate poverty in SSA. Increased productivity in terms of value and profitability is clearly the way to generate higher incomes in a sustainable manner—that is, without further depleting SSA’s natural resource base.

COMPARISON OF AGRICULTURAL PRODUCTIVITY

One way to increase the competitiveness of an industry or product on the global market is to produce more efficiently. Increases in efficiency are captured by measuring the agriculture value added per worker, which is also a proxy for agricultural productivity.² For African producers to capture

more value and increase exports, they must increase productivity levels. SSA’s agriculture productivity measure of US\$335 value added per worker (2003–5) is the world’s lowest. In comparison, at US\$914, world agricultural productivity averages 3 times the SSA level, and Latin America is nearly 10 times more productive at US\$3,057 per worker.

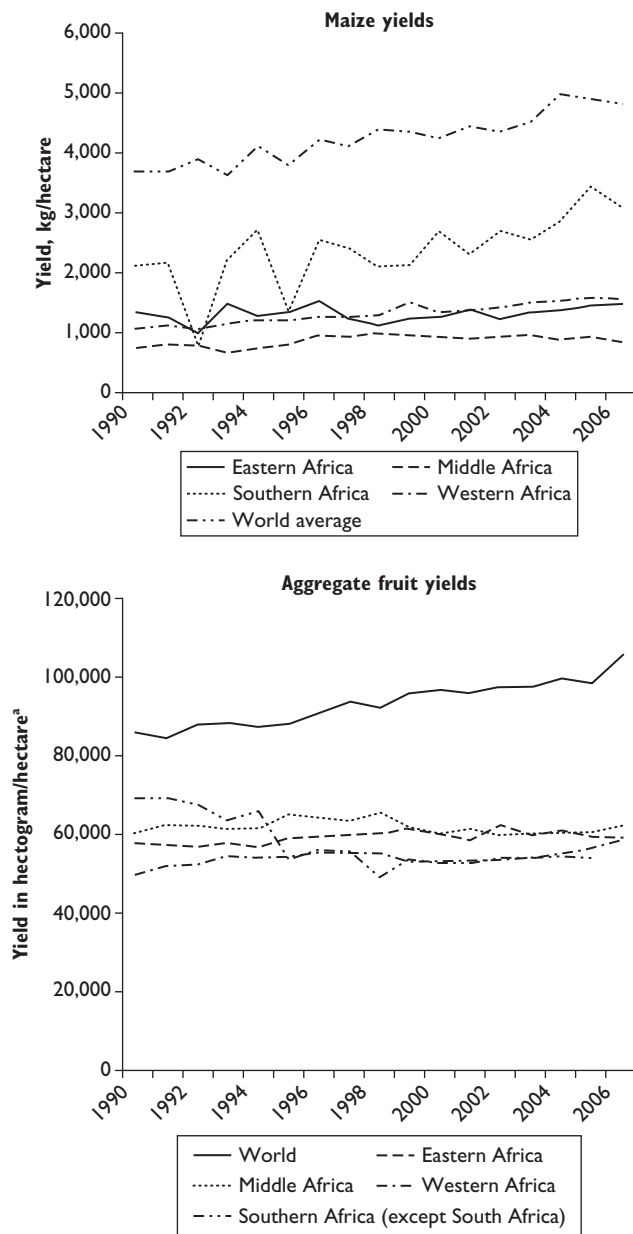
African productivity, in terms of yields, is also very low (see figure 1.3).

Such low levels of productivity hinder Africa’s attempts at reducing poverty. SSA’s agricultural value chains need to become more productive and competitive in the global market for agricultural goods, and its value chains need to achieve greater value within Africa, as well. Increases in competitiveness can assist those dependent on agriculture and agribusiness in increasing their incomes and asset base.

Within Africa, there are large discrepancies between countries’ average levels of productivity. Countries such as Mali, South Africa, and Zambia have achieved high levels of sustained growth over the past 17 years (see table 1.2, pertaining to cereal yields). Others, such as Burundi, the Democratic Republic of the Congo, Liberia, and Zimbabwe,³ have suffered significant decreases in agricultural productivity, which may be the result of insecurity, conflict, climate change, as well as of unsound economic policies.

Productivity in terms of net value added is a crucial measure of value chain performance. Value chains encapsulate the sequence of steps, flows, investments, actors, and interrelationships that characterize and drive the process from production to delivery of a product to the market. Raising the productivity (as well as efficiency) of agricultural value chains is key to the success of SSA’s rural economies and to the incomes of SSA’s rural populations.

Figure 1.3 Maize Yields and Aggregate Fruit Yields Excluding Melons, Africa versus World



Source: FAOSTAT data.

^a FAO estimate.

OBJECTIVES OF THE GUIDE

Worldwide, there has been a great deal of experimentation and learning in the search for reliable strategies to achieve sustainable economic growth. Recognizing that this growth must be led by sound business strategy and operation and driven by market demand, practitioners have gradually

abandoned early, state-focused models (that is, government ownership of resources and enterprises) and have since recognized that both public and private sectors have vital roles to play in the economic-growth partnership. How well those respective public and private roles are defined, and how competently each sector performs its role, are significant determinants of economic growth.

For many years, private sector development initiatives and programs have emphasized actions to increase businesses' access to training, skills development, financing, entrepreneurship, business development services, and other important elements. More contemporary focuses have included helping small and medium enterprises link with global markets and improving business environments. While these varied initiatives have all proven useful, each by itself is unlikely to generate significant changes in a country's economic performance.

Starting in the mid-1980s, as part of the push toward diversification into nontraditional agricultural export crops that occurred in the Latin America and Caribbean region with the passage of the Caribbean Basin Initiative, a great deal of useful work was done on the "deal-making" approach to high-value products, which involves helping businesses identify and penetrate new markets with path-breaking initial shipments. Often this approach was pushed in response to donor agency impatience to demonstrate visible results in the short run.

However, while buy-sell transactions are the essence of business, over time it has become clear that the transaction-based approach does not adequately respond to the desire of large buying organizations to have a consistent supply of high-quality, standards-compliant product, nor does it ensure long-term viability. Both the "category management" that drives the food industry and the quest for sustainability that drives development require a shared vision that engages all partners, planning that spans across seasons and years, as well as structured procurement/supply programs that present win-win situations and sustainable results for a particular food category.⁴ So in recent years, leading practitioners have refocused on improving access to and participation in the more profitable, higher volume value chains, and the efficient supply chains on which they must rely, both as a means to achieving better category management in food enterprises as well as forging longer-term partnerships.

In the above context, the World Bank has been giving increasing emphasis in recent years to challenges associated with agricultural trade facilitation, export promotion, and global or regional competitiveness. The Bank hopes to contribute to the transformation of African agriculture into a

Table 1.2 Aggregate Cereal Yield per Hectare (kg/Ha), by Country

Country	1990	2002	2006	Change 1990–2006 (%)	Change 2002–2006 (%)
Angola	320.59	640.12	485.44	51.4	-24.2
Benin	847.85	945.13	1,125.16	32.7	19.0
Botswana	265.38	358.82	341.47	28.7	-4.8
Burkina Faso	600.22	942.68	1,126.59	87.7	19.5
Burundi	1,348.51	1,334.28	1,329.73	-1.4	-0.3
Cameroon	1,241.44	1,683.00	1,408.39	13.4	-16.3
Cape Verde	334.60	148.50	354.72	6.0	138.9
Central African Republic	806.99	1,019.68	1,074.07	33.1	5.3
Chad	559.21	670.89	749.54	34.0	11.7
Congo, Dem. Rep. of	799.85	771.98	785.42	-1.8	1.7
Congo, Rep. of	624.31	785.52	789.92	26.5	0.6
Côte d'Ivoire	884.82	1,719.47	1,776.51	100.8	3.3
Djibouti	1,666.67	1,666.67	1,500.00	-10.0	-10.0
Eritrea		164.65	405.58		146.3
Ethiopia		1,351.29	1,589.49		17.6
Gabon	1,643.33	1,282.05	1,539.79	-6.3	20.1
Gambia, The	1,003.92	960.27	1,222.62	21.8	27.3
Ghana	989.20	1,349.03	1,334.48	34.9	-1.1
Guinea	1,455.05	1,706.55	1,435.77	-1.3	-15.9
Guinea-Bissau	1,530.74	1,067.26	1,625.25	6.2	52.3
Kenya	1,561.77	1,488.47	1,674.82	7.2	12.5
Lesotho	1,038.89	1,618.22	653.52	-37.1	-59.6
Liberia	1,028.57	919.79	550.00	-46.5	-40.2
Madagascar	1,945.30	1,967.29	2,511.19	29.1	27.6
Malawi	991.55	1,045.69	1,106.78	11.6	5.8
Mali	726.38	792.38	1,067.48	47.0	34.7
Mauritania	869.85	1,010.00	782.36	-10.1	-22.5
Mozambique	473.91	809.63	902.31	90.4	11.4
Namibia	457.32	412.58	433.56	-5.2	5.1
Niger	310.28	411.48	605.23	95.1	47.1
Nigeria	1,147.92	1,255.24	1,464.11	27.5	16.6
Rwanda	1,042.65	1,028.48	1,117.79	7.2	8.7
Senegal	795.02	651.61	879.03	10.6	34.9
Sierra Leone	1,201.67	2,118.88	1,485.22	23.6	-29.9
Somalia	793.04	769.65	589.28	-25.7	-23.4
South Africa	1,876.60	2,770.70	3,142.96	67.5	13.4
Sudan	455.74	487.17	718.07	57.6	47.4
Swaziland	1,277.64	993.65	546.77	-57.2	-45.0
Tanzania	1,506.24	1,290.58	1,513.62	0.5	17.3

(Table continues on the following page.)

Table 1.2 Aggregate Cereal Yield per Hectare (kg/Ha), by Country (continued)

Country	1990	2002	2006	Change 1990–2006 (%)	Change 2002–2006 (%)
Togo	746.84	1,130.97	1,135.12	52.0	0.4
Uganda	1,497.63	1,638.75	1,522.93	1.7	–7.1
Zambia	1,352.06	1,412.97	1,837.12	35.9	30.0
Zimbabwe	1,625.41	458.47	713.52	–56.1	55.6

Source: FAOSTAT data.

profitable economic endeavor by focusing on increased productivity, efficiency, and stronger linkages for farmers with more lucrative markets. In the framework of the African Action Plan, the World Bank/Sustainable Development Department of the Africa Region (AFR-SDN) has further engaged in generating and disseminating knowledge concerning the potential development of high-value agricultural supply chains as a means to increase and diversify revenues in rural areas of SSA.

This Guide to value chain approaches is part of that effort, designed to provide the user with actionable methods and tools based on value chain concepts that can help design interventions to increase the productivity and performance of SSA agriculture. A wide range of tools and approaches—traditionally considered to be relevant mostly to sophisticated private businesses as they develop their own strategies and implement their own business plans—are, in fact, proving to be useful to development planners and practitioners when it comes to designing subsector, commodity, and value chain strategies.

This Guide is intended for use by a number of audiences. Most directly, it provides planners, decision makers, and implementers with practical tools for creating effective value and supply chain development programs. It also provides public and private stakeholders with a common framework for designing strategies and prioritizing decisions on sector and subsector competitiveness. Policy makers, business leaders, members of the development community, researchers, and practitioners can use these methods and approaches to promote the development of traditional and nontraditional value chains in sub-Saharan Africa.

To introduce the individual tools, approaches, and case studies, the Guide also discusses several key topics that the tools embody or take into account. In this regard, however, the important “take-away” from this document is not the identification of common topics, but rather the insights and practical applications that value chain–based approaches provide for adding value, creating opportunities, and enabling

SSA’s agricultural farmers, entrepreneurs, and businesses to reach markets.

The literature and practice of development concerning value chains, both academic and applied, is very substantial (see section 3). Special mention must be made of the considerable body of work that is being developed by and with the sponsorship of international agencies. The U.S. Agency for International Development (USAID) has developed many useful materials centered on value chain analysis, and its work is well reflected in its modular value chain training program, the Value Chain Wiki (http://apps.develebridge.net/amap/index.php/Value_Chain_Development) and by its ongoing value chain work. Germany’s Gesellschaft für Technische Zusammenarbeit (GTZ) has also pioneered excellent work on value chains (for example, ValueLinks), as has the United Kingdom’s Department for International Development (DFID) (for example, Regoverning Markets), and several other agencies. The World Bank and International Finance Corporation (IFC) have also made available other toolkits and guides with complementary purposes and focus areas. This Guide provides a specific implementation focus on value chain applications in agriculture and agribusiness in the African context.

ORGANIZATION OF THE GUIDE

The Guide is organized as follows:

- **Section 1** introduces the Guide, its objectives, and its scope.
- **Section 2** includes the definition of value chains, a description of their structure, and background on using and analyzing value chains.
- **Section 3** reviews existing literature on value and supply chains, including current theories and applications.
- **Section 4** discusses individual tools used in value chain analysis.

This Guide begins by examining core concepts and issues related to value chains. A brief literature review then focuses

on five topics of particular relevance to African agricultural value chains, which can contribute to effective implementation tools and approaches. These are:

- Trust and cooperation
- Governance
- Market power
- Innovation and knowledge
- Focus/intervention points

These topics pertain to conditions and challenges faced by value chain participants and practitioners. They resonate throughout the many cases described in this Guide.

The core of the Guide presents methodological tools and approaches that blend important value chain concepts with the topics discussed and with sound business principles. The accompanying cases illustrate the application of the tools. The tools and case studies discussed in this Guide have been selected for their usefulness in directing and supporting market-driven private sector initiative and action to implement improvements in agricultural value chains.

This Guide offers 13 value chain implementation tools, presented within the implementation cycle of a value chain program. The cycle typically consists of six stages, corresponding to different entry points for using the value chain approach, depending on the specificities of the situation and problems to solve:

- 1) Designing strategies and business plans (and obtaining and using information)
- 2) Developing robust new businesses
- 3) Supplying the market (aligning supply to match market opportunity)
- 4) Reaching the market (market positioning and market opportunities)

- 5) Improving the business and policy environment
- 6) Monitoring results in value chain development

Each tool is followed by descriptions of one or more actual cases. These cases illustrate the tool's application, and are coupled with embedded mini-cases for additional perspective. Roughly 60 percent of the examples are from Africa, while the rest come from Europe, Latin America, and Asia.

NOTES

1. The trade ratio is widely used as a measure of integration into the world economy. Caution is needed, however, in interpreting it as an indicator of policy openness or competitiveness, because countries that are large or distant from major markets tend to have low ratios regardless of whether their policy regime is open. Similarly, small countries typically have a high trade ratio even with protectionist policies. Oil exporters also may have high trade ratios despite restrictive policy regimes.

2. Value added in agriculture measures the output of the agricultural sector less the value of intermediate inputs. Agriculture comprises value-added from forestry, hunting, and fishing as well as crop cultivation and livestock production. Data are in constant 2000 U.S. dollars.

3. Between 2001 and 2002, Zimbabwe's yield fell by two-thirds. This low yield for 2002 accounts for the growth between 2002 and 2006 despite a general trend toward lower yields over the last five years.

4. For a recent discussion of sustainability in supplier-buyer relationships, see *The Ties That Bind: Making Buyer-Supplier Relationships Stick*, USAID's Business Growth Initiative, J. E. Austin Associates, Inc. <https://www.businessgrowthinitiative.org/ResourceCenter/Pages/TechnicalBriefs.aspx>.



SECTION 2

Concepts and Definitions of Value Chains and Supply Chains

DEFINITION OF CONCEPTS

Chains composed of companies (or individuals) that interact to supply goods and services are variously referred to as productive chains, value chains, filières, marketing chains, supply chains, or distribution chains. These concepts vary mainly in their focus on specific products or target markets, in the activity that is emphasized, and in the way in which they have been applied. What they have in common, however, is that they all seek to capture and describe the complex interactions of firms and processes that are needed to create and deliver products to end users. Moreover, they all strive to identify opportunities for and constraints against increasing productivity.

Although it is impossible to draw clear distinctions among these often overlapping concepts, it is still worthwhile to provide some basic definitions and highlight some of the differences. Typically, “value chain” describes the full range of value-adding activities required to bring a product or service through the different phases of production, including procurement of raw materials and other inputs, assembly, physical transformation, acquisition of required services such as transport or cooling, and ultimately response to consumer demand (Kaplinsky and Morris 2002). As such, value chains include all of the vertically linked, interdependent processes that generate value for the consumer, as well as horizontal linkages to other value chains that provide intermediate goods and services. Value chains focus on value creation—typically via innovation in products or processes,

as well as marketing—and also on the allocation of the incremental value.

By contrast, the term “supply chain” is used internationally to encompass every logistical and procedural activity involved in producing and delivering a final product or service, “from the supplier’s supplier to the customer’s customer” (Feller, Shunk, and Callarman 2006). Since the primary focus of supply chains is efficiency, the main objectives are usually to reduce “friction” (for example, delays, blockages, or imbalances), reduce outages or overstocks, lower transaction costs, and improve fulfillment and customer satisfaction.

The issue is not so much about which concept is superior or preferable, since they are complementary and their effective implementation can deliver improved business results.¹ It must be noted, though, that practitioners of the supply chain approach often fail to consider to what extent cost reduction and inefficiencies in supply chain logistics actually add value, and if so, who benefits. On the other hand, value chain proponents sometimes forget that effective value chains must rest in efficient supply chains.

“Clusters” represent collections of firms and institutions that perform many of the functions segmented and described in both the value chain and supply chain literature. Clusters themselves display horizontal and vertical links among enterprises that produce a single or closely related product or service, which in turn may combine to satisfy the demand of a particular value/supply chain. The literature on clusters stresses the benefits of enterprise agglomeration and

geographic proximity, which can generate economies of scale and positive externalities such as lower costs of intermediate inputs or services, better access to skilled personnel, or greater attractiveness to external procurement agents. Improving clusters typically requires more emphasis on the local environment (both policies and institutions, public and private) and context in which it operates.

Generally the “chain” concept, whether value or supply, places less emphasis on the enabling environment, while “cluster” analysis often neglects the necessary linkages to specific target markets that exist outside the cluster.

Another related concept is the Francophone *filière* (literally “thread” in English). “Filière” is used to describe the flow of physical inputs and services in the production of a final product, and is essentially similar to the modern value chain concept in its emphasis on vertical and horizontal coordination (Kaplinsky and Morris 2002). *Filière* studies do not have a single unifying theoretical framework, and its practitioners have borrowed from different theories and methodologies for their analyses. The concept is often used as synonymous to commodity chain or subsector. The *filière* was initially used to study contract farming and vertical integration in French agriculture in the 1960s. It was, soon thereafter, applied to agriculture in developing countries, such as the model implemented to develop the cotton sectors in West and Central Africa. Over time, *filière* analysis focused more on how public institutions affect local production systems, and how “interprofessional associations” can help glue together direct and indirect economic actors, that is, those who handle the product of interest versus those who contribute ancillary goods or services.

All of the commodity system concepts discussed—whether chain, cluster, or *filière*—underscore the importance of linkages to gain value and advantages to compete in global markets. The term value chain is primarily used in this Guide, as it is inclusive and incorporates supply logistics, value addition, transactions, and market linkages. We use other terms occasionally (particularly supply chain) where we believe that the Guide’s conceptual focus or a specific case warrants.

HOW VALUE CHAIN ANALYSIS HAS BEEN USED

Interest in value chains is not new. Businesses have been using value chain analysis and implementation principles for years to formulate and implement competitive strategies. Corporations use value chain analysis to answer questions such as, “Where in the value chain should my business be positioned to improve its performance?” The value chain’s

popularity has been reinforced by many important business strategy themes, including core competencies, comparative and competitive advantage, outsourcing, vertical and horizontal integration, and best practices.

Businesses (individually and in groups, such as clusters) have focused on value chains while searching for alternative ways to remain competitive. Value chain approaches have been used to guide product and process innovations, such as specialty or organic coffee, that final customers or receivers value. Further, there is increased awareness that procedures within a firm might not affect its own competitiveness unless other firms adopt similar or linked practices. Recognizing that partnerships and joint programs aimed at better category management and sustainability need not be a zero sum game has paved the way for businesses to use collaborative value chain concepts to identify efficiencies and competitiveness both within and among firms, acting on opportunities to build win-win relationships. Recent technological developments that permit high levels of information sharing have reinforced businesses’ capacity to upgrade value chain productivity and supply chain efficiencies.

More recently, governments and donors, realizing that upgrading the performance of individual firms can best be achieved in the context of market-based rewards for improved performance, have shown significant interest in value chain analysis and implementation. In their effort to devise interventions that can help reposition entire industries, build business competitiveness, and spur economic growth, governments and donors can use value chain–based approaches as robust tools to protect threatened links, facilitate upgrading of others to generate greater returns, and to promote foreign direct investment (FDI) programs. Additionally, value chain analysis has been used to examine constraints in the enabling environment in which the chains operate. Value chains have also been used as a tool for SME development, with new methods of linking SME suppliers and service providers to the value chains of lead processors or marketers.

More importantly, value chain analysis sheds light on the size of the firms participating in each link, how they are participating or could be participating in the chain, and opportunities to facilitate or improve those linkages. This is particularly crucial in agriculture, where governments and aid agencies are confronted with the challenge of including small farmers in modern value chains so that they can benefit from the globalization of markets. The value chain concept is therefore not only relevant to deal with growth, but

also with the equity dimension of the modernization of the agrifood systems.

ANALYZING AND EVALUATING VALUE CHAINS

Value chain analysis rests on a segmentation of the different activities and mapping of interactions that may generate costs or value in the production and sale of a product or service. Although it is also concerned with structure, conduct, and performance, it differs from traditional commodity system or industry analyses in some important ways:²

- It focuses on net value added instead of just overall revenue and gross physical output.
- It is concerned with cost build-up and value accretion, as well as the distribution of burden or benefit in both.
- It recognizes that linkages between productive activities and actors vary according to the specific product type and target market, even if the main actors are the same.
- It recognizes that economic activity is very dynamic, necessitating adjustments in strategy and tactics constantly as circumstances change.
- It recognizes that there are different kinds of value chains (buyer-dominated, supplier-dominated, balanced, or directed) depending on which actors or activities have the most leverage, information, and power.
- It looks not just at physical flows, but also informational flows.
- It seeks to better understand the constraints and opportunities within each segment, as well as the context in which the chain operates.

There are many ways to analyze or evaluate a value chain. Analysis can stem from research of secondary information, such as government or industry data, to interviews with industry participants. It can also be derived from participatory market assessments and market observations. Once the information is gathered, numerous tools and processes help interpret and inform the resulting analysis.

In general, an in-depth value chain analysis considers the following questions (SNV 2004):

- What are the target markets that the value chain of interest serves?
- What/where are the main competing value chains?
- What are the product types, forms, and presentation that each target market seeks?
- What are the pathways from source to each end-market?
- What are the value chain's comparative advantages?

- How do financial (and sometimes economic) costs rise as the product moves along the value chain?
- How does market value rise as the product moves along?
- Where is there the most potential for growth in sales or profitability?
- Who are the most important actors within the value chain and how do they behave?
- To what extent is trust and cooperation evident at each step in the chain?
- What is the share of volume and value associated with different types or cohorts of actors?
- Where are the apparent choke points or bottlenecks in the value chain?
- What is the overall size of the value chain of interest?
- How does this value chain connect to others, and what possible synergies exist?
- How has the value chain been evolving over time?
- How is the value chain governed, and who holds power or influence?
- In what ways is the value chain regulated from outside, or self-regulated?
- What is the institutional framework of the value chain (for example, producer or trade associations)?
- What factors in the enabling environment hinder or support chain growth and prosperity?
- What is the potential for improving or upgrading any of the above?

LIMITATIONS OF VALUE CHAIN ANALYSIS

As mentioned, there are many ways to analyze a value chain. For example, value creation can be disaggregated between each link in the chain, as well as within each link. Some chains are merely a directional map (such as the one in figure 4.25), which is, in itself, valuable for beginning to understand the actors and processes that intervene to create value for particular consumers. However, agencies and other sponsors that commission value chain analysis often find that the analysis as carried out is insufficient and cannot be used to guide them in making informed decisions—particularly in deciding on actions that will greatly impact value added, rather than merely reducing costs.

Indeed, many of these analyses have a common weakness: the tendency to focus excessively on cost efficiency or break-outs of cost components. While efficiency in production is increasingly becoming a necessary condition for penetrating global markets, it will not ultimately be the only factor that determines sustained participation and increased incomes for

value chain participants. The following sections contain examples of some related analytical weaknesses and challenges.

Value chains are not fixed or static

It is important to recognize that value chains are not fixed in terms of composition, relationships, or market positioning, and that there is a competitive need to alter and improve the value chain in light of strategic choices that businesses can make regarding the markets in which they compete. While a value chain's purpose is to link production to the target market advantageously, it is the private sector that decides which markets and where to compete—and alters the value chain accordingly. Value chain analysis too often focuses simply on improvements within the given value chain, rather than on how value chains can be shifted to target different, more attractive markets and business strategies.

Market dynamics matter

Value chains can be helpful instruments for serving the needs of a particular market sector, but focusing on a static value chain can also mask the need to segment and customize products for different markets. The key elements of building sustainable competitiveness are a solid understanding of market dynamics and a thorough analysis of the attractiveness of potential market segments and the competition. Businesses must choose which products and which markets can be served competitively and base their goals and strategy on good market analysis.

Quality and service are also important

Similarly, excessive focus on delivering a product (especially a commodity) may hide opportunities to deliver a package of products and services that the market or customer will find desirable. Too often, a value chain analysis is not designed to help businesses and planners weigh choices about delivering product quality, information, and service.

Considering the environment in which a value chain operates

Often, value chain analysts do not properly consider the business environment in which the value chain operates. In doing so, the analysis can fail to identify potential interventions for improved business and value chain performance.

Government regulations, international standards, trade regulations, and market forces typically shape the business environment. Michael Porter's diamond for depicting the major competitiveness factors, shown in figure 2.1 below, is a useful framework for assessing a value chain's business environment (the diamond is discussed further in section 4, tool 2.)

A simple cost analysis will not do

Some value chain analyses merely depict a cost build-up per activity without mapping the actors involved or identifying the value that is captured at each link of the chain. An evaluation of a value chain based only on an analysis of cost structure at various stages in the value chain is not sufficient to assess the competitiveness position of the value chain—because it disregards the market and value addition side of the equation. In some cases, it can even result in misleading conclusions.

Creating a cost build-up, and benchmarking it against competitors, will obviously provide ideas on areas for improvement. But the analysis will probably not shed light on which activities generate more value, whether the product can be produced at a competitive price for other markets, how well the chain is integrated, or how easily information flows throughout it. More importantly, a simple cost build-up will tend to focus on interventions that improve on costs, rather than on the broader and more comprehensive value chain approach that looks at repositioning the whole chain into more lucrative markets and products.

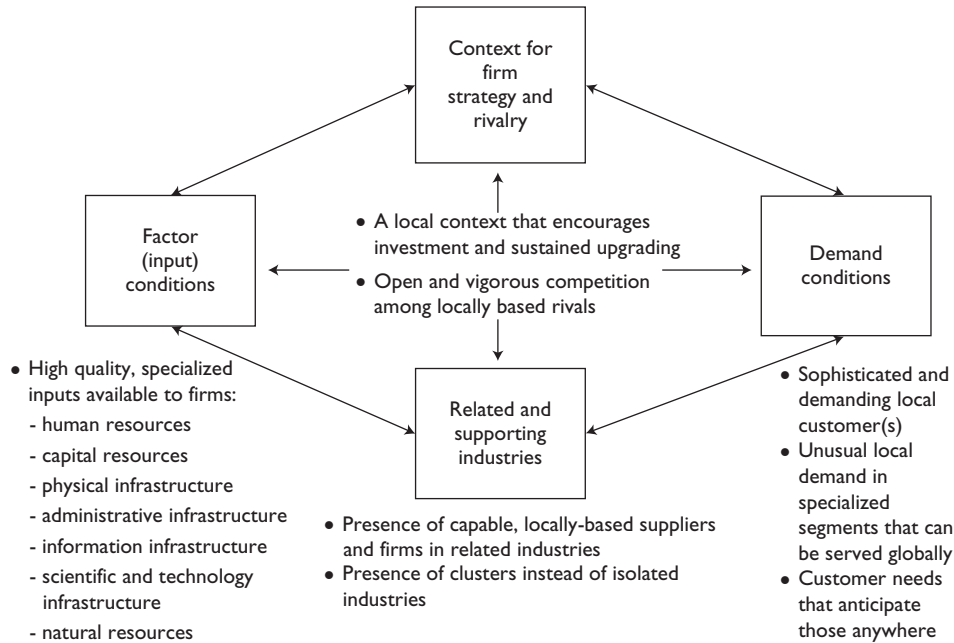
Shifting value within a value chain, rather than creating more value

As mentioned earlier in this section, donor agencies and governments have sometimes used value chain analysis to identify and protect threatened links along chains. Additionally, some stakeholders continue to look at value chain analysis as a zero sum game focused on shifting value from one link of the chain to another. This cutthroat perspective obscures opportunities to upgrade the whole system to the benefit of all value chain participants.

IMPLICATIONS OF THE OPERATING ENVIRONMENT: BEYOND THE VALUE CHAIN

While value chain analysis is extremely useful, its weaknesses highlight the fact that many other important considerations

Figure 2.1 Competitiveness Diamond



Source: Michael Porter, 2009.

are necessary to increase the net value generated for the entire chain or some of its participants. It is important to understand market dynamics, competitive forces, and the operational environment that can affect the value chain's performance and growth.

Yet at the same time, there is a need to focus on fundamentals. Every target market and value chain role has key elements and drivers that are important for competing successfully. Interventions to build competitiveness should not attempt to make quick, comprehensive improvements throughout an entire value chain. Rather, a competitiveness-building strategy should target priority elements for improvement. In other words, improvements should not be made irrespective of a strategy that has set goals and objectives and is based on identified opportunities, given the value chain's relative position. It is crucial to identify success factors and driving forces in the target markets in question and subsequently benchmark these elements against top performers and competitors.

While reductions in production or transaction costs are always desirable, competitors can and will easily imitate them. Value chain interventions should therefore concentrate at least as much, if not more, on achieving: (1) products

of higher unit value; (2) more volume of products of the same value; (3) a different mix of products; and/or (4) delivery of a given set of products into more diverse markets.

Product innovations such as new varieties, new formulations, new presentations, or entirely new manufactured products are one way to add value. Process innovations such as changes in technology, production or manufacturing practices, certification, traceability, identity preservation, or branding are another major way. New business models and their business-to-business relationships are a third. All such innovations can benefit from inward as well as externally provided investment, technical support, or mentoring.

NOTES

1. In fact, Feller, Shunk, and Callarman (2006) argue precisely for the need to stop thinking of supply chains and value chains as different entities, but rather, for integration of the two.

2. Some of these differences were adapted from Kaplinsky and Morris (2002), "A Handbook for Value Chain Research," p. 46–47.



SECTION 3

Review of Existing Literature on Value Chains and Supply Chains

This section, through a review of value chain literature, provides a summary of and commentary on the state of knowledge and available information on several main topics currently being discussed by researchers and practitioners regarding how value chain-based implementation is framed, focused, and realized. The literature review emphasizes key topics from value chain development and identifies the bases for appropriate tools used to guide decision making and action in the agricultural sector. While not specific to Africa, the topics below are highly applicable to African agricultural value chains and are woven throughout the tools and cases presented in section 4.

This section highlights a number of issues, patterns, and topics; the discussion of their contexts and relevance establishes a good background for understanding the implementation tools that follow. Although the documents reviewed here indicate the remarkable breadth of work that has been done on value chain development, they are only a small portion of the available literature. This section is not intended to comprehensively review the entirety of value chain literature; the reference documents presented and cited here were selected for their coverage of the topics most relevant to the tools and approaches presented in this Guide.

The Guide's bibliography includes a comprehensive list of the resources consulted. Those documents, specifically mentioned below, are highlighted for their usefulness in discussing topics, models, theoretical considerations, lessons learned from past program implementations, operational implications, and illustrative examples.

This literature review emphasizes five topics, currently the focus of much consideration, that are of particular relevance to African agricultural value chains and that can contribute to effective implementation tools and approaches:

- Trust and cooperation
- Governance
- Market power
- Innovation and knowledge
- Focus/intervention points

These topics pertain to conditions and challenges faced by value chain participants and practitioners and can help answer questions such as:

- Why do certain firms find it in their interest to cooperate or develop win-win relationships?
- Why do certain firms have the most market power and the ability to determine price to their advantage?
- What is a strategy for maintaining market share?
- How does a supply or value chain get pulled by market demand?
- How is innovation allowed to flow among members of a chain?

These common topics were extracted or developed from various works. A partial list (and their emphasis) is shown in table 3.1 We particularly note:

- *A Handbook for Value Chain Research*, Kaplinsky and Morris, International Development Research Center.

- *Global Commodity Chain Analysis and the French Filière Approach: Comparison and Critique*, Raikes, Jensen, Ponte Royal Dutch Veterinarian and Agricultural University.
- *Globalization and the Small Firm: A Value Chain Approach to Economic Growth and Poverty Reduction*, Downing, Field, Kula, United States Agency for International Development.
- *Governance in Global Value Chains*, Humphrey and Schmitz, Institute of Development Studies at the University of Sussex.
- *Implementing Sustainable Private Sector Development: Striving for Tangible Results for the Poor: The 2006 Reader*, Miehlbradt, McVay, Tanburn, International Labor Organization of the United Nations.
- *Info-Cadena: Instruments to Foster Value Chains*, Springer-Heinze, German Agency for Technical Cooperation (GTZ).
- *Integrating SMEs in Global Value Chains: Toward Partnership for Development*, Kapinsky, Readman, United National Industrial Development Organization.
- *AMAP BDS Knowledge and Practice Task Order: Lexicon General*, Dunn, United States Agency for International Development.
- *Commodity Chains and Global Capitalism*, Gereffi, Korzeniewicz, 1994.
- *ValueLinks Manual*, GTZ.
- *Regoverning Markets: Small Scale Producers in Global Agrifood Markets*, UK Department for International Development.

For references specifically focusing on sub-Saharan African agricultural value chains, we turned most frequently to commodity-specific or program implementation reports. These reports were useful for African perspectives and for understanding key geographic aspects of value chain program implementation. Some of the most pertinent reports that provided African perspectives were:

- “Successes and Challenges in Promoting Africa’s Horticultural Exports,” by Gabre-Madhin and Minot, World Bank, 2003.
- “Partnerships for Agribusiness Development, Agricultural Trade, and Market Access: A Concept Note for NEPAD,” by TechnoServe, November 2004.
- “The Market for Non-Traditional Agricultural Exports,” by Hallam, Liu, Lavers, Pilkauskas, Rapsomanikis and Claro, Commodities and Trade Division, FAO, 2005.
- “Etude sur la Compétitivité des Filières Agricoles dans l’Espace UEMOA,” Union Economique et Monétaire Ouest Africaine (UEMOA).

- “Exporting Out of Africa: The Kenya Horticulture Success Story,” by Jaffee and Okello, World Bank.
- “Globalization of the Agro-Food System: Success and Challenges for Promoting Africa’s Horticultural Exports,” by Gabre-Madhin and Minot, International Food Policy Research Institute, 2004.
- “Guide to Commodity-Based Export Diversification and Competitiveness Strategies for African Countries,” by Stryker and Salinger, Associates for International Resource Development.
- “High Value Agricultural Products for Smallholder Markets in Sub-Saharan Africa: Trends, Opportunities, and Research Priorities,” by Temu and Temu, ICTA.
- Programme de Développement des Marchés Agricoles—AgMarkets Sénégal, GEOMAR International Inc.
- “The European Horticulture Market: Opportunities for Sub-Saharan African Exporters,” edited by Patrick Labaste, 2005.

In table 3.1, each document’s technical focus is distinguished according to focus on private sector development (PSD), value chain, and agribusiness. Documents with an Africa focus are indicated specifically.

Undoubtedly, academics, international organizations, bilateral development institutions, and nonprofit organizations have done a great deal of work related to these common topics. There is broad agreement on the importance of these identified topics and concepts. But the nomenclature is still ambiguous and not universally accepted. Attempts have been made to define and provide a lexicon, but inconsistencies persist. The concepts and definitions used in this Guide result from experience, generally accepted expert terminology, and, in some cases, ad-hoc definitions that will be made explicit.

CREATING TRUST

At the heart of value chain development is the effort to strengthen mutually beneficial linkages among firms so that they work together to take advantage of market opportunities, that is, to create and build trust among value chain participants. Nearly all of the documents on value chain development contain this notion of the importance of interfirm cooperation and creating economies of scale through increased coordination.

Most value chain-based initiatives work with a range of business types to strengthen both vertical linkages (between firms that buy from and sell to one another) and horizontal linkages (between firms that serve the same functions in the value chain). These interfirm connections are especially

Table 3.1 Key Documents Utilized in the Literature Review

Value chain or agribusiness resource document	Geographic focus	Technical focus	Relevant value chain topic covered					Author (s)	Affiliated or donor organization
			Trust	Governance	Market power	Innovation and knowledge	Intervention		
Addressing Marketing and Processing Constraints That Inhibit Agrifood Exports: A Guide for Policy Analysis and Planners	General	Agribusiness		√	√			Westlake	FAO
Agri-Supply Chain Management: To Stimulate Cross-Border Trade in Developing Countries and Emerging Economies	General	Agribusiness	√	√				Roekel, Willems, and Wageningen	World Bank
AMAP BDS Knowledge and Practice Task Order: Lexicon	General	VC	√	√	√	√	√	Dunn	USAID
Commodities, Diversification, and Poverty Reduction	General	Agribusiness	√	√	√			Humphrey	FAO
Commodity Chains and Global Capitalism	General	VC	√	√	√			Gereffi, Korzeniewicz	
Competitive Strategies for Agriculture-Related MSES: From Seeds to Supermarket Shelves	General	Agribusiness					√		USAID
Compilation of Insights on the Online Debate, Value Chains in Rural Development (VCRD): The Role of Donors in Value Chain Interventions	General	VC		√			√	Roduner, Gerrits	SDC
“Customized Competitiveness” Strategies for Horticultural Exporters: Central America Focus with Lessons from and for Other Regions	General	Agribusiness			√			Reardon	USAID, MSU
Etude sur la Compétitivité des Filières Agricoles dans l’Espace UEMOA	Africa	VC		√	√		√	Faivre Dupaigne, Baris, Liagre	ECOWAS
Exporting Out of Africa: The Kenya Horticulture Success Story	Africa	Agribusiness		√	√			English, Jaffee, Okello	World Bank
Globalization and the Small Firm: A Value Chain Approach to Economic Growth and Poverty Reduction	General	VC	√	√	√		√	Downing, Field, Kula	USAID
Globalization of the Agro-food System: Success and Challenges for Promoting Africa’s Horticultural Exports	Africa	Agribusiness		√				Gabre-Madhin, Minot	IFPRI
Governance in Global Value Chains	General	VC		√	√			Humphrey and Schmitz	IDS
The Governance of Global Value Chains	General	VC		√	√	√		Gereffi, Humphrey, Sturgeon	Rockefeller Foundation

(Table continues on the following page.)

Table 3.1 Key Documents Utilized in the Literature Review (continued)

Value chain or agribusiness resource document	Geographic focus	Technical focus	Relevant value chain topic covered					Author (s)	Affiliated or donor organization
			Trust	Governance	Market power	Innovation and knowledge	Intervention		
Guide to Commodity-based Export Diversification and Competitiveness Strategies for African Countries	Africa	Agribusiness		√				Stryker, Salinger	AIRD
A Handbook for Value Chain Research	General	VC	√	√	√	√	√	Kaplinksy and Morris	IDRC
High Value Agricultural Products for Smallholder Markets in Sub-Saharan Africa: Trends, Opportunities and Research Priorities	Africa	Agribusiness			√			Temu and Temu	ICTA
Implementing Sustainable Private Sector Development: Striving for Tangible Results for the Poor: The 2006 Reader	General	PSD	√				√	Miehlbradt, McVay, Tanburn	ILO
Integrating SMEs in Global Value Chains: Towards Partnership for Development	General	VC	√			√	√	Kapinsky, Readman	UNIDO
Participatory Market Chain Approach	General	VC	√	√				Bernet, Devaux, Ortiz, Thiele	—
Promotion of Commercially Viable Solutions to Subsector and Business Constraints	General	Agribusiness					√	Lusby, Panlibuton	USAID
Strategies for Diversification and Adding Value to Food Exports: A Value Chain Perspective	General	VC		√				Humphrey and Oetero	UNCTD
Successes and Challenges in Promoting Africa's Horticultural Exports	Africa	Agribusiness	√	√	√	√		Gabre-Madhin, Minot	World Bank
Trade, Micro and Small Enterprises, and Global Value Chains: microREPORT #25	General	VC		√	√		√	Barber and Goldmark	USAID
Upgrading Global Value Chains	General	VC		√	√	√		Humphrey	ILO
Value Chain Analysis for Policy-Makers and Practitioners	General	VC		√	√		√	Schmitz	ILO, Inst. Dev. Studies
Value Chains and Their Significance for Addressing the Rural Finance Challenge	General	VC		√	√		√	Akin, Fries	USAID

Note: VC = Value Chain. — = not available.

important to consider when examining how agile a value chain can be regarding market developments, or how able it is to link to markets. Positive outcomes undoubtedly result when there is a strong market drive for linkages, strong investment from many businesses in the chain, and a market system in place to replicate improved models and practices (ILO 2006).

More specifically, interfirm cooperation refers to the joint action between two or more firms in a value chain. It includes horizontal and vertical linkages between firms and can be formal or informal. Examples include information sharing, bulk purchasing of inputs, contract farming, and industry branding campaigns. Unfortunately, value chain participants frequently do not work cooperatively, and market conditions sometimes propel firms to adapt cutthroat measures while competing for highly segmented market rents.

Too often, many participants in a value chain choose not to collaborate among themselves due to lack of leadership, mistrust of competitors, weak information, or lack of scale. Without a strategic direction for the value chain and effective management of its economies, a cutthroat and zero-sum mentality can take hold among value chain participants, who then ignore or cannot see the benefits of cooperation, including the mechanisms that foster it. Competition is, of course, useful, but that usefulness is limited if it blinds the participants to productive collaboration and incentives. For example, if a lead exporting firm or monopoly is able to concentrate its buying power, it can rely on multiple suppliers for inputs and ignore price incentives for service and quality. Given its situation, the lead firm might restrictively determine the price, erect barriers to entry, and prevent the dissemination of information or opportunities to innovate.

A situation that prevents collaboration (beyond simply transactional relationships) can leave producers/suppliers competing among themselves for less lucrative rents and with little opportunity to capture more value. In such low-trust value chains, the lead firm(s) may perpetuate its short-term advantage by switching (or threatening to switch) suppliers in constant pursuit of cost advantages.

In this respect, the level of development of the value chain is important. In many instances in SSA, value chains lack the required ingredients for trust building merely because of their lack of effective performance, which in turn leads actors to opt for opportunistic and risk mitigation behaviors.

Characteristics of value chain relationships that have the largest effect on the level of trust between participants include (Kaplinsky and Morris 2002):

- Length of trading relationship
- Ordering procedures

- Contractual relationship
- Inspection
- Degree of dependence
- Technical assistance
- Communication
- Price determination
- Credit extended
- Outsourcing payment terms

The literature frequently emphasizes the idea that building trust by rewarding collective action among stakeholder participants is crucial for upgrading a value chain. Indeed, working within value chains requires establishing relationships in order for participants to gain the “win-win” perspective. When trust, learning, and benefits are shared among firms (vertically and/or horizontally), there is a greater likelihood of generating collective efficiency and scale. Increased trust has also proven to lead to greater specialization by the value chain, as well as eventual outsourcing that provides cost advantages (adapted from Moran [2001]). For instance, less time and money need to be invested to monitor performance when suppliers can be trusted to meet quality, quantity, and time requirements. High-trust situations enable lead firms within the value chain to assist each other in achieving common objectives.

Value chain development initiatives have orchestrated stakeholder meetings by providing neutral outsiders to help build trust among the participants. Oftentimes, removing the zero-sum mentality among value chain participants requires more objective assistance and successful early initiatives to trigger change. An outside and neutral facilitator can drive home the concept of participating in a mutually beneficial commercial relationship, but it remains necessary that the value chain participants drive the entire process.

More recently, observers have questioned the sustainability and utility of non-profit-motivated organizations and government agencies acting as market advisors to value chain participants. Their argument states that, for sustainability purposes, market conditions, rather than government agents or nonprofit professionals, should determine the role that participants take and the relationships that are formed. There is substance to this criticism, but depending on the focus of the development intervention, a facilitative role of a neutral broker may be very often critical in order to stimulate or create markets in underserved areas, or where market demand has not yet been recognized (ILO 2006). However, the general consensus among practitioners is that a good exit strategy must accompany such

approaches from the very beginning, or else distortions or dependencies will result.

GOVERNANCE: WHAT TYPE OF POWER RELATIONSHIP EXISTS, AND IS INFORMATION SHARED?

“Governance” is a description of the dynamic distribution of power, learning, and leadership in standards and strategy-setting among a value chain’s firms. While the term can have many meanings, in this instance we use it to describe the sharing of information and systematic standards promoted by the “governing” entity in a value chain.

Governance can be characterized along a continuum of four types of relationships that center on information and the use of market power (Dunn 2005):

- **Market relationship:** Arms-length transactions in which there are many buyers and many suppliers. Repeat transactions are possible, but little information is exchanged between firms, interactions are limited, and no technical assistance is provided.
- **Balanced relationship:** Both buyers and suppliers have alternatives, that is, a supplier has various buyers. There are extensive information flows in both directions, with the buyer often defining the product (that is, design and technical specifications). Both sides have capabilities that are hard to substitute, and both are committed to solving problems through negotiation rather than threat or exit.
- **Direct relationship:** Main buyer takes a large percentage of supplier’s output, defines the product (that is, design and technical specifications), and monitors the supplier’s performance. The buyer provides technical assistance and knows more about the costs and capabilities of the supplier than the supplier does about the buyer. The supplier’s exit options are more restricted than those of the buyer.
- **Hierarchical relationship:** Vertical integration of value-added functions within a single firm. The supplier is owned by the buyer or vice versa, with the junior firm having limited autonomy to make decisions at the local level.

Governance ensures that interactions between firms along a value chain exhibit some level of organization rather than simply being random. Value chains are governed when the parameters requiring product, process, and logistic qualification that are set have consequences up or down the value chain, encompassing bundles of activities, actors, roles, and functions (Kaplinsky and Morris 2002). Of course, one

objective of value chain development is to engender informed, incentive-producing governance targeted at achieving high-value results.

In many sub-Saharan Africa cases, certain key actors—the lead firms or “governors of value chains”—have the capability and power to define and set the parameters of contracts and subcontracts in their supply chains. For example, they can define chainwide product and process standards, quantities, and conditions of delivery. This power may be based on ownership of well-established brand names, proprietary technology, or exclusive information about different product markets, which enable the firm to act as a system integrator (Altenburg 2006).

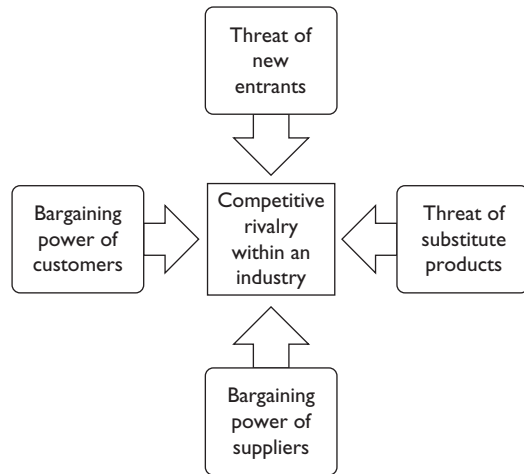
The governing entity is often a lead firm that is closer to the market or business environment that the value chain inhabits. Leadership or being a “lead” firm implies success, efficiency, a competitive composure, or direct information. As such, working with lead firms is often the most efficient and effective way for a development program or market partner to reach a large number of chain participants. The advantages are an easy entry point, a possibly guaranteed market or reliable supplier, leveraged technical expertise, and marketing connections. The disadvantages are that the lead firms too often seek exclusive producers, resist replication, and limit competition, while small value chain participants risk becoming too dependent on one lead firm (ILO 2006).

In economics, a competitive lead firm is said to arise in a contestable market. Contestable markets are ones in which monopoly/monopsony-type market distortions do not arise despite dominance of the value chain by few (or even one) firm(s). These firms do not exercise their ability to manipulate prices because low barriers to entry guarantee that new firms will quickly enter and return the market to equilibrium prices. Hence, the threat of competition is sufficient to induce competitive pricing. In the context of African value chains, contestable markets are particularly important in the West African cotton sector, where the pricing power of monopolistic, often parastatal firms, is ostensibly checked by the threat of competition.

MARKET OR BARGAINING POWER (BUYER VERSUS PRODUCER)

All approaches to value or supply chains identify the crucial impact of power relations among different actors. Power relations determine how economic gains and risks are distributed among value chain actors (see figure 3.1) and to what extent dominant firms may set and enforce standards

Figure 3.1 Power Relations in Value Chains



Source: Michael Porter, 2007.

with the aim of raising entry barriers for competitors and achieving market foreclosure. The concept of “governance of value chains” implies that “there are key actors in the chain who take responsibility for the inter-firm division of labor, and for the capacities of particular participants to upgrade their activities” (Kaplinsky 2000).

“Market power” refers to the idea that one firm in the market may be able to exert significant influence over the goods and services traded or the price at which they are sold. Governance plays a large part in determining and explaining various firms’ market power. However, commercial competence, market forces, and technical capabilities also determine the market power of value chain participants.

A commercial transaction’s price is determined by the bargaining power of the transacting entities. In economics, bargaining power refers to the ability to set prices or wages, usually arising from some sort of monopoly, monopoly-like position, or non-equilibrium situation in a market. The economic actor with greater bargaining power has the greater decision-making freedom. Typically, value chains feature two types of bargaining power relationships: buyer-driven and producer-driven.

Buyer-driven value chains refer to a market context where producers have few options for selling their goods or services. These chains typically have low barriers to entry at the producer level, or they may have locational/logistics limitations to whom the producer can sell (for example, “captive” tea producers for a tea estate or cotton producers for a ginner). This type of market condition is referred to as a “buyer’s market” (if not a monopolistic one).

International brand name and retailing companies (“buyers”), therefore, define the rules of the game in particular industries and appropriate the largest share of the gains from those industries’ production. In the developing world, buyer-driven value chains are often characteristic of labor-intensive industries like agriculture, clothing, and furniture. The typically low barriers to entry on the production side of buyer-driven value chains mean that a multitude of suppliers compete for very low rents. Essentially, the buyer has an advantage because these numerous producers compete to offer goods and services at the lowest cost. Quality and other standards tend to be imposed by the buyer or appear as entry requirements to the buyer’s geographic marketplace (for example, GlobalGAP, formerly EurepGAP).

Producer-driven value chains are often characterized by knowledge intensity, relatively higher levels of technology or skills, scarcity, high levels of marketing, or capital-intensive production practices. These high-level factors, scarcities, and differentiations produce barriers to entry for competition. These barriers to entry include the large amounts of capital needed for investment and, therefore, entry, limiting the number of producers. Similarly, environmental factors, such as location, can present physical barriers. The products of producer-driven value chains often require high research and development (R&D) expenditures or have been branded with costly marketing efforts in order to increase barriers to entry and protect market shares.

Examples of producer-driven value chains are perhaps most readily seen in complex technology industries, such as the commercial airline, automobile, or computer industries. But they are also often present in agricultural sectors when freshness standards and protected varieties are important, when there is high product differentiation, when packaging and logistics are complicated, or when R&D and other knowledge elements in production or processing are critical. In such situations, the producer can capture a higher profit because sales are high margin and based on factors such as quality management or differentiation, rather than on strictly cost-based competition. Examples from the agricultural sector include: bananas produced by the leading multinationals, organic products like cotton, branded products like processed and packaged agricultural products, quality-differentiated products like specialty coffees, or high-value processed products like essential oils.

Power and governance in value chains are common topics in the literature, but their relation to the prospects of upgrading value chains in developing countries is inconclusive. The literature seems to recognize that, in reality, value chains are not purely buyer driven or producer driven, and

that they can and do change. Indeed, the creation of competitive advantage by elements of the value chain is a means to alter the power balance among actors within the chain, or in relation to competing chains.

INNOVATION, INFORMATION, INFORMATION SHARING, AND KNOWLEDGE

In competitive markets, innovation helps maintain or grow market share or profits and can be a route to competitiveness and the development of competitive advantage. Innovative production and processing can create cost efficiencies and improved services that translate into higher margins or more competitive pricing. Innovations in logistics can also provide cost efficiencies, as well as improved service. In terms of value chain development, innovation must be viewed as necessary for overall chain competitiveness by capturing more value or upgrading the value chain. The production factor of “know-how” is one core factor regarding the upgrading of value chains (Porter 1998a). A value chain’s access to information (for example, regarding market trends) can itself be a competitive advantage.

The way that knowledge is transferred is determined by the information flows or linkages between firms within a value chain. Targeted transfer of knowledge by the lead firms, using backward linkages, is usually seen in the development of product specifications (for example, quality, preferences, or certifications) and other expectations (for example, price, quantity, or time) that are communicated by the lead firm to its suppliers. This relationship is often part of an “embedded services” relationship between buyer and producer. In such relationships, firms or producers pay for the services of technical assistance or innovation in the price they get for their products.

In general, learning processes among firms are most effective where they are located close to one another and are therefore able to benefit from a high level of communication, networking, and other exchanges of information. If the rate of innovation is lower than that of competitors (whether firms or competing value chains), this may result in declining market share and value added; in extreme cases it may also involve negative growth. Thus, innovation has to be placed in a relative context—pace compared to competitors—that can be referred to as upgrading.

Upgrading refers to the innovation that increases firm and/or value chain competitiveness. According to the Accelerated Microenterprise Advancement Project (AMAP)/ Business Development Services (BDS) lexicon developed by USAID, there are five categories of upgrading (Dunn 2005).

1. **Process upgrading:** Increasing efficiency (that is, more output for same level of inputs or same output for lower level of inputs), achieving standards and certifications (for example, organic, HACCP, and ISO).
2. **Product upgrading:** Improving product quality, new product development, new varieties, or line extension.
3. **Functional upgrading:** Operating at a new level in the value chain.
4. **Intrasectoral upgrading:** Operating in a new market channel within the same value chain.
5. **Intersectoral upgrading:** Producing a completely different product in a completely different value chain.

The concept of upgrading explicitly recognizes relative endowments and, hence, the existence of value. Upgrading approaches emphasizes issues of knowledge creation, transfer, and appropriation. Critical questions are raised regarding the manner in which knowledge flows along value chains, firms acquire information and upgrade processes, firms “unlearn” certain capabilities as they specialize, types of knowledge are transferred by technology proprietors, and firms disclose their core competencies. However, this field requires substantial further research.

INTERVENTION ENTRY POINTS AND INITIAL FOCUS

By “entry point” we refer to the elements of the value chain structure, relationships, market linkages, or strategic or operational objectives that provide effective leverage points for working with or influencing the value chain actors. Many documents, including many project reports, describe elements of value chain operation or strategy around which an initiative can take root, and methods that various types of development shareholders use to work with value chains. The choice of an initiative’s entry points, partners, tools, and approaches strongly depends on the characteristics of the value chain, its participants, the business environment, and many other factors.

It should be axiomatic that interventions be based on well-considered needs or strategies of the value chain and its participants, rather than a “solution looking for a value chain.”

CONCLUSION

As mentioned, we have selected topics for emphasis that are highly pertinent to upgrading and improving value chain

targeting, linkage, and operation and that are the current focus of much innovative thinking and practice. These topics are particularly applicable to Africa's agricultural value chains.

These topics resonate throughout the many cases described in the following section of the Guide. The Guide's tools and approaches make use of the thematic principles that this section has highlighted, as well as several other intervention ideas.

Improving value chain competitiveness in Africa presents challenges, but is, of course, subject to the same worldwide

trends, competitive forces, and business principles that are common to value chains in the global economy. The specifics of any value chain initiative are nonetheless highly contextual.

The second portion of this Guide discusses methodological tools and approaches that incorporate important value chain concepts with the topics discussed and with sound business principles. The accompanying cases, mostly from Africa but also from the Americas, Asia, and Europe, illustrate the application of the tools.

