TOOL 3

Conducting Benchmarking and Gap Assessments of Value Chains

BENCHMARKING BACKGROUND

At both the company and value chain levels, benchmarking is crucial. Benchmarking compares the performance of a company or value chain to itself at different points in time, to another value chain in the country, or to a value chain in another country in order to establish the current baseline position and provide comparative data to guide decisions and actions. Usually quantitative indicators are used, such as total gross domestic product (GDP), time to market, pricing data, and others. Qualitative data can also be used, although such information is harder to measure clearly and objectively.

Benchmarking allows practitioners and stakeholders to understand the performance of particular value chains in comparison to competitors, and especially to global best performers. Knowing what competitors do differently, and whether these differences are important drivers of value chain performance, gives clues as to beneficial changes that could be made to improve performance of the value chain.

Benchmarking can be used by all members of the value chain to build a common understanding and vision as the basis for prioritizing objectives and decisions. Members can benchmark against each other to determine whether their performance is up to par and pinpoint areas of improvement. They can also benchmark the entire value chain against other value chains in the same industry or other global value chains.

THE BENCHMARKING TOOL

It is possible to benchmark almost anything, so, too often, stakeholders do not adequately narrow down their field of focus when benchmarking. A scope that is too broad does not allow for real drivers of performance to be analyzed. Therefore, it is necessary to first refine the scope and select appropriate comparators. Those conducting the benchmarking must keep in mind that the results should lead to clear courses of action. Therefore, if the comparators that are selected are not appropriate, the results will not be useful and may even be misleading.

In assessing a value chain's competitiveness, several key aspects can be usefully examined. First, it is important to benchmark overall value chain performance, meaning how well the actors in the value chain deliver products to the final consumer in comparison to other value chains and other countries. Once the overall value chain is analyzed, it can be broken down into key performance components, such as yields, transport efficiency, market access, unit price, and many others. These key components and the underlying processes can then be individually benchmarked to identify relative strengths and weaknesses. Industry experts can identify important, detailed performance and competitiveness indicators; once these indicators are quantified, comparisons between different industries and countries can be made. The experts and the value chain leadership can then analyze how the better performance is being achieved.

Once benchmarking is completed and differences in performance have been identified and analyzed, the next step is to determine courses of action. In order to spur action by stakeholders, the results of the benchmarking exercise can be disseminated so that stakeholders understand their position and become a part of the action process. The information should generate dialogue to increase participants' insights into the need for intervention and achieving consensus on decisions and actions.

What benchmarking does

1. *Establishes a baseline of current performance.* Once the benchmarking exercise has been completed, a company, an industry, or a country understands its position relative to its comparators.
2. *Identifies areas and targets for improvement.* If benchmarking against best practices, then differences in performance along the entire value chain can be identified.

Shortcomings can be examined and steps can be taken to improve performance.

3. *Pinpoints potential critical factors for success.* Areas for improvement can be prioritized.

Steps to effective benchmarking

The benchmarking process is straightforward in nature. It generally includes the following steps:

- Determine what indicators and measures to benchmark
- Determine the benchmarking target groups
- Gather and analyze the data
- Convert benchmark data into action through:
  - Managed discussion
  - Prioritization and design
  - Implementation

Many widely available indexes measure elements of one country's competitiveness relative to other countries. Examples involve the World Economic Forum's Global Competitiveness Report, the World Bank Doing Business Report, the World Development Indicators, and a variety of standard economic indicators available through governments, universities, and international organizations. Although the data they provide can be general in nature, such data are a useful guide for specific discussions and action planning later in the benchmarking process.

In addition to the "broad strokes," decision makers and industry leaders need to understand the more detailed basis for the value chain's performance, the structure of the value chain, availability of services, and the value chain's operating environment. This targeted benchmarking is done in several steps, outlined below.

Determine what to benchmark

First, the value chain's performance must be accurately and objectively measured in the performance and operational areas most relevant to its competitiveness (for example, availability of inputs, time to export in national ports, and local transportation costs). Items that should be benchmarked will vary from value chain to value chain based on priorities determined by the value chain's strategy. It is important to select actionable items for a benchmarking exercise. It is not sufficient just to know that some process or step in the value chain is slow or costly. Selected indicators need to point to why the process is slow or exactly where costs are added (see box 4.2). This should be measured

Box 4.2 Ugandan Benchmarking Constraints in the Coffee Industry

Uganda, a major coffee producer, has only recently begun a concerted campaign to add value to their production. Grown in many areas of the country, Uganda's coffee is generally transported to Kampala and sent to Port Mombassa for shipment overseas.

In 2003, amidst a national decentralization initiative, coffee growers and processors were faced with increasing numbers of procedures as individual districts imposed levies on investments and shipments within and between the districts. Procedures were not combined or streamlined—indeed, the increasing fragmentation led to the need to devote substantial time to petty transactions and, reportedly, an increased incidence of "facilitation payments." These circumstances were echoed in other sectors, such as fish and wood products.

Reports indicated that once a shipment reached Kampala, it was not uncommon for the container to take a period of 20 days to reach Mombassa—but only two or fewer days are required for actual transport time. What accounted for the remaining 18 days? Lengthy and nonstreamlined border procedures accounted for some of the time, but most was taken up with multiple inspections and customs procedures. Reports also implied that numerous informal taxes were being levied. The impact on the industry in terms of product quality, losses, and the risk of missed deliveries was significant.

Ugandan stakeholders benchmarked this situation against those in other countries to see if these delays and costs were normal. Information from coffee exporters in Colombia, Costa Rica, and Vietnam indicated that instead of 20 days, the norms for delivery to port were between 1 and 7 days.

This information helped the industry and government to recognize the impact of a poor system of regulation and implementation and to focus attention on putting a streamlined system in place.

Author: Lisa Carse, J. E. Austin Associates, Inc., interviews.

at steps all along the value chain and in the services provided to the chain. It is important that the entire value chain be included so as to identify bottlenecks and added costs that may not be readily apparent.

The rationale for using data, and the data points themselves, can be gathered from industry and trade publications, local government sources, and through surveys. Surveying relevant firms and industry groups, and participants along the entire value chain, can provide a qualitative component that enhances understanding of the processes being measured and costs being tracked. How to conduct value chain performance gap analysis is discussed later in this section. The greater the level of specificity in the benchmarking activities, the more likely it is that the results will lead to practical applications.

Determine the benchmarking target(s)

Benchmarkers must determine comparator value chains (target comparators) and specific performance indicators that will provide the best basis for comparison. The target comparators should be value chains operating in other countries, or possibly in different regions of the same country. Once the home value chain data are obtained, the benchmarkers can turn their attention to the targets.

Including a knowledgeable outsider can facilitate the process, provide additional perspective, strengthen the objectivity of the data, and speed identification of key elements to benchmark. In choosing benchmarking targets, it is important not only to consider countries and industries that demonstrate global best practices, but also regional competitors or those countries that are operating successfully in a competitive space that the home value chain would like to occupy (positioning, see tool 8). The purpose of the benchmarking exercise within the context of the goals and strategy of the nation and/or value chain will determine which comparator indicators are examined; the key point is that the indicator should have high relevance as a standard or driver of performance. Objectives of the benchmarking might include:

- Operational improvements
- Reduced transaction costs
- More advantageous market positioning

Collecting the data—where is the benchmarking information?

A surprising number of public sources will provide useful information; sometimes the benchmarkers will have to dig more deeply. Some common sources include:

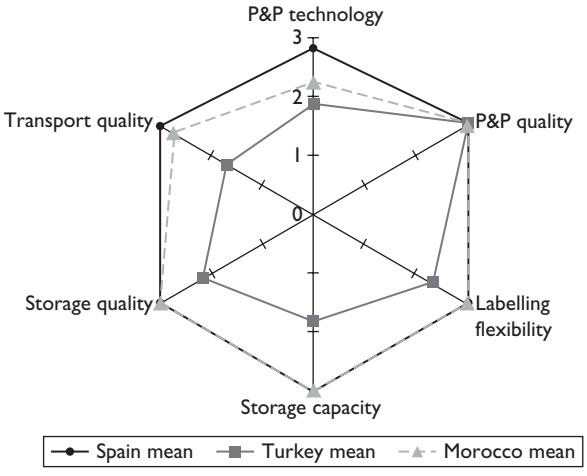
- Publicly available reports
- Published sources, especially trade publications and databases
- The target comparator value chain (and participant companies and clusters)
- Industry experts, consultants, and researchers
- Suppliers, service providers, and buyers

Utilizing the data

Once the data have been gathered, participants can carry out a careful analysis and draw insightful conclusions. Many analytical tools can be used to create clear comparisons and help identify areas for targeted intervention. Creating a graphical representation, such as the "spider" in figure 4.13, can help decision makers to easily understand certain strengths and weaknesses in their value chains so that actions can quickly be targeted in the appropriate areas.

Figure 4.13 describes the extent of coordination within the supply chains of citrus fruit and tomatoes in Morocco, Spain, and Turkey (Garcia 2003). In order to achieve EurepGAP certification, it is important for all members of the value chain to be in close communication to ensure quality and other elements required for certification. Morocco and Turkey were benchmarked against Spain in categories that contribute to seamless coordination along the supply chain. From figure 4.13, it is apparent that Spain is the best

Figure 4.13 Coordination within the Citrus Fruit and Tomato Value Chains, Comparison among Morocco, Spain, and Turkey



Source: Garcia Martinez et al. (2003).
Note: Higher value indicates better quality.

Box 4.3 Tanzanian Cotton—Benchmarking Costs

Cotton is a primary commodity produced in and exported by several West African countries. A field visit to Tanzania in 2004 examined Tanzanian ginning, benchmarking companies against a theoretical West African cotton company, and against actual costs in Burkina Faso and Cameroon. The theoretical costs were calculated for a West African cotton company operating at full capacity (with a volume of 50,000 tons of seed cotton) with the price of seed cotton at a level of FCFA 160 per kg, which is the actual price in Burkina Faso, Cameroon, and Mali.

Below, the price breakdown of cotton lint production is set against comparator countries, including the West Africa theoretical model.

Comparison among Tanzania, Theoretical Costs in West Africa, and Actual Costs in Burkina Faso and Cameroon

	US$[a]/kg of cotton lint			
	Tanzania	W. Africa theoretical	Actual Burkina Faso	Actual Cameroon
Collection of seed cotton	0.094	0.083	0.103	0.097
Processing costs	0.082	0.135	0.163	0.134
Financing costs (short term)	0.023	0.038	0.067	0.013
Cost from ginnery to free on board (FOB)	0.100	0.128	0.155	0.162
Subtotal	**0.299**	**0.383**	**0.488**	**0.406**
Capital costs (on investment)	0.009	0.035	0.036	0.036
Taxes	0.042			
Overhead and contingencies	0.009	0.052	0.034	0.053
Dagris[b] fee			0.012	0.012
Total intermediary costs	0.358	0.470	0.569	0.507
Purchase cost of seed cotton	0.833	0.755	0.755	0.755
CDF levy (passbook)	0.055			
Critical functions (extension, research, seeds)		0.019	0.029	0.047
Total FOB cost	**1.247**	**1.244**	**1.352**	**1.308**
Minus: value of seeds	0.079	0.038	0.038	0.050
Net FOB cost	**1.168**	**1.206**	**1.315**	**1.259**

Tanzania has a cost advantage over the theoretical figure and the actual prices from Burkina Faso and Cameroon. Knowing this allows Tanzania to develop an industry growth strategy to take advantage of its favorable cost position. Tanzania's net FOB costs are 13 percent lower than Burkina Faso's and 8.5 percent lower than Cameroon's.

Source: Lisa Carse, J. E. Austin Associates, Inc., based on Tschirley, David, Colin Poulton, and Patrick Labaste, ed., 2009, "Organization and Performance of Cotton Sectors in Africa." World Bank, Washington, DC.

[a] The comparison, in U.S. dollars, is based on the actual exchange rate (US$1 = FCFA504 and TZS1,200) at the time of writing the report in 2004.

[b] Dagris is a company involved in cotton marketing chains that holds shares in cotton enterprises in several African countries.

performer, followed by Morocco and Turkey. Turkey falls short of Spain in every category, while Morocco actually matches Spain's score in several categories. Illustrating this information in this type of graph helps value chain participants to weigh their options for which improvements to address first. In this case, Turkey needs to make improvements in every category, while Morocco can choose whether to focus on areas in which it falls far short of Spain (for example, through improvements

in market orientation, production flexibility, vertical integration, vertical coordination, and IT systems), or attempt to gain a competitive advantage by outperforming Spain in areas where it is already close to achieving that goal (for example, through improvements in segregation or traceability systems).

Gap analysis is a basic tool that is useful in understanding differences among comparator value chains and in helping value chain participants to identify the areas where interventions and reforms should take place. This analytical tool, when presented graphically as a comparison of elements of value chains (or clusters—see tool 12 for comparison of the content of cluster maps) can provide strong visual impact in understanding and communicating a value chain's relative strengths and weaknesses.

Gap analysis can also be presented in a table format, as shown in table 4.3, using data gathered in a benchmarking exercise conducted for the cigar industry in the Dominican Republic.

Gap analysis can also be based on the perceptions of value chain leaders through an exercise that quantifies what members of the value chain already know. In the example below, members of the value chain use a qualitative benchmarking exercise to begin to identify both the specific areas in which they believe the chain lags behind its competitors and ideal models or industry trends. This "quick and dirty" approach to gap analysis is based more on leaders' perceptions (correct or incorrect) than on hard data. But it is a useful means of quickly starting a benchmarking dialogue and a good strategist/facilitator can use the method and discussion to encourage the value chain participants to look more deeply into the assumptions and conclusions.

In the example illustrated in table 4.4, value chain A is the country of interest, while value chain B is the best practices target or global industry standard. The participants identify the indicators that they believe are the current drivers of their industry's global competitiveness. Members of the value chain in country A then give themselves scores for how well the chain performs on each indicator. This score is compared to the best practices score, and the gap between the two scores is recorded.

Once the participants recognize the gaps and understand the reasons for them, they will be able to make choices for a prioritized strategy change. The gap analysis and the proposed action prioritization can be used as an effective basis for public-private dialogue along with value chain and firm-level decision making (for example, see the cases in tools 2 and 8). However, because it is unlikely that value chain actors will be able to effectively manage everything at once, decision makers will need to weigh the feasibility of possible initiatives, their implementation capacity, and the relative payoff of each intervention in determining priorities. Value chain stakeholders will initially need to target high impact gaps and objectives or ones that establish a platform for follow-on steps and successes.

Table 4.3 Gap Analysis of the Dominican Cigar Industry versus Cuban Cigars

Critical success factors	Dominican cigars	Cuban cigars	Follow-on questions
Sales volume	120 million sold	80 million sold	At what price point? What are industry profits?
Flavor	#2 in blind taste tests	#1 in blind taste tests	What are the key determinants of flavor?
Packaging	Imported wrapper	Local wrapper	How important is the wrapper to consumer choice? How does the wrapper affect production costs?
Research and development (R&D) capacity	Weak (but improving)	Strong	What institutions are needed to develop R&D capacity?
Distribution channels	Mostly sells to Davidoff	Controls European distribution channels	What kinds of distribution channels are most in line with the business and growth model? How can these be developed?
Final market	Over-reliance on U.S. embargo of Cuba	Strong European penetration	Where are current customers? Future/potential consumer bases?
Industry management	Dynamic enterprises	State-owned enterprises	What are managerial weaknesses? How can they be improved?
Marketing	Rising image as a "cigar country"	Strong "Cuban" brand	How can sellers develop an effective and differentiated branding strategy?

Source: J. E. Austin Associates, Inc., based on interviews.

Table 4.4 Illustrative Gap Analysis

Driving forces of industry	Country A	Country B	Gap
Health qualities	1	5	4
Branding and promotion	2	5	3
Convenience of packaging and availability	4	5	1
Guarantee of quality and standards	3	5	3
Logistics	2	5	3

Source: J. E. Austin Associates, Inc.
Note: Rating: 5 = excellent; 4 = good; 3 = average; 2 = below average; 1 = weak or poor.

A STEP-BY-STEP SUMMARY OF TOOL 3: CONDUCTING BENCHMARKING AND GAP ASSESSMENTS OF VALUE CHAINS

- Determine which value chain performance indicators and measures to benchmark. Identify the elements that are important. The indicators should point to where costs, time, quality, service, and value are added along the value chain to help identify bottlenecks, unnecessary costs, and upgrading opportunities.
- Determine the benchmarking target groups (comparators). Value chains and companies that represent global best practices, as well as regional value chains, should be compared against to identify areas of operational improvement, ways to reduce transaction costs, quality and service improvements, availability and quality of supporting services, and ways to improve competitiveness strategies.
- Identify data sources. There may be many sources, including studies and research, industry reports, trade publications, and other available material. Knowledgeable experts (within the industry and within comparator value chains and organizations), buyers, and service providers can be consulted. First-hand visits to observe operations may be warranted.
- Gather and analyze the data. A variety of tools are available to analyze and communicate benchmark data. These tools include, but are not limited to, gap analysis, spider graphs, diamond analysis, and illustrative tables.
- Convert benchmark data into strategy and action. Accurate data from benchmarking exercises provide the private sector, practitioners, and policy makers with relevant indicators highlighting the strengths and weaknesses of any value chain. These data can then be used as a springboard for discussions among stakeholders about which areas of a value chain should be priorities for intervention.

CASE STUDY 4

Ugandan Floriculture—Benchmarking and Gap Analysis

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INTRODUCTION

Benchmarking and gap analysis serve to establish the levels of performance of comparator industries, value chains, or firms. In 2002, the World Bank's "Regional Study on Agricultural Trade Facilitation/Non-Traditional Export Promotion in SSA: Uganda Horti-Floriculture Sector Technical Note 2" benchmarked the cost structure and other elements of Uganda's floriculture industry against those of Kenya, a country with similar natural attributes, ranked number one in African floriculture exports to the Dutch auctions. Therefore, Uganda's floriculture sector was not only benchmarked against its main regional competitor, it was also benchmarked against Africa's best performer in terms of total export value. The benchmarking was used to inform a gap analysis—the identification of areas of weakness relative to comparators—and create a strategy for future growth based on Uganda's competitive position.

BACKGROUND AND INDUSTRY DESCRIPTION

Uganda, a landlocked country in East Africa, has achieved considerable diversification from traditional agricultural crops such as coffee, tea, and cotton, to nontraditional exports including fish, tobacco, cut flowers, and a wide variety of vegetables. The push toward diversification of the economy was particularly important in response to falling prices for traditional goods.

Floriculture was first developed in Uganda around 1993, so it is a relatively new industry for the country. Floriculture specifically describes the cultivation of flowers and cuttings, which currently includes the majority of Uganda's horticulture production. The World Bank's 2002 assistance in studying the Ugandan floriculture sector was intended to help the industry and the government of Uganda assess growth potential and design a strategy for its development.

The value of Uganda's horticulture exports, comprising flowers, plant cuttings, fresh fruits and vegetables, vanilla, cocoa, and papain, nearly quadrupled from US$10.7 million in 1995 to US$40.7 million in 2002 (see table 4.5). Floriculture exports represented the largest share of Uganda's exports in the horticulture sector. However, experts estimated that Uganda was producing far below its potential.

In 2002, commercial floriculture was a major nontraditional agricultural export sector, valued at US$21 million freight on board (FOB). There were 20 commercial farms in production with a total acreage of 122 hectares. Export volume had increased from 721 tons in 1995 to 3,820 tons in 2002.

The Ugandan floriculture industry mainly produces sweetheart roses and chrysanthemum cuttings. Almost all exports are destined for Europe, with the Netherlands receiving the largest share. While most of the flowers produced in Uganda are sold through the Dutch flower auction (table 4.6), small quantities are also sent directly to Belgium, Germany, and the United Kingdom. In 1998, Uganda ranked eleventh among the suppliers of roses at the Dutch auction market; by 2002, it had moved up to sixth place (see table 4.6).

Producers in the floriculture industry in Uganda are large commercial farms that are vertically integrated and

sell directly to importers in Europe. The value chain at the producer level is consolidated mainly because of the large amount of capital that must be invested in growing flowers suitable for export and putting a working cold chain in place (figure 4.15).

Figure 4.14 Map of Uganda

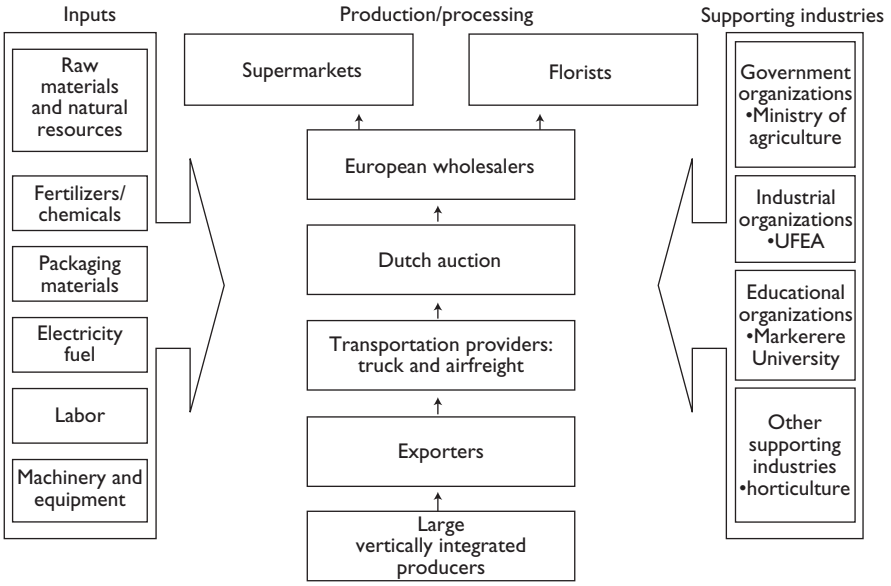
Source: World Bank.

The 2002 assessment included analyses of the Ugandan floriculture value chain and production cost structure, which were then benchmarked against those of Kenya. The value chain analysis for roses showed that, due to strong competition and exchangeability of suppliers, profit margins are very small in the flower value chain (see figure 4.16). Producers receive around 40 percent of each euro spent by a consumer on flowers. At the next step of the value chain, the exporter keeps another 40 percent of the final consumer price, although the exporter pays the associated airfreight costs. When flowers reach the Netherlands, an importing agent unpacks the flowers, rehydrates them, and palletizes them for sale to the Dutch flower auction, which adds a 5 percent fee. Wholesalers and other retailers then add another 15 percent before the final consumer pays the corresponding final price.

USING BENCHMARKING: VALUE CHAIN ANALYSIS

To help assess Uganda's competitiveness in floriculture, the World Bank benchmarked part of the Ugandan producers' value chain and production cost structure against those of Kenyan producers. Kenya was selected because it is located in the same geographic region (although with slight a difference in climatic conditions, especially the altitude for growing similar products) and is a competitor

Figure 4.15 Ugandan Floriculture Value Chain and Cluster Map



Source: J. E. Austin Associates, Inc., from Uganda Horti-Floriculture Sector Technical Note 2, 2004.

Table 4.5 Growth Performance of Ugandan Horticultural Exports, 1995–2002

Product	Value of exports (US$ Thousands FOB) 1995	Value of exports (US$ Thousands FOB) 2002	Total growth (%) 1995–2002	Annual growth (%) 1999–2000	Annual growth (%) 2000–2001	Annual growth (%) 2001–2002	Average annual growth 2000–2002
Roses	2.3	14.1	513.04	–8.34	26.32	22.40	13.46
Plant cuttings	—	7.03	—	28.21	24.44	25.54	26.06
Fresh produce	0.63	4.24	573.02	0.96	1.27	32.50	11.57
Vanilla	0.24	9.43	3829.17	34.67	183.17	64.86	94.23
Cocoa	0.64	4.97	676.56	–27.86	33.66	84.07	29.96
Papain	4.46	0.71	–84.08	–76.67	–26.53	–1.39	–34.86
Other	2.4	0.2	–91.67	–28.57	20.00	–66.67	–25.08
Total	10.67	40.68					

Source: de Vette and Gabre-Madhin 2004.

Table 4.6 Rose Sales at the Dutch Auction, 2002

		Value	Stems	Average price
Rank	Country	€ mil.	€ mil.	€ ct /stem
1	Kenya	148.5	1,027.9	14.4
2	Israel	133.1	866.4	15.4
3	Zimbabwe	67.2	474.0	14.2
4	Ecuador	21.7	75.4	28.8
5	Spain	15.5	168.4	9.2
6	Uganda	12.8	136.6	9.4
7	France	10.0	63.5	15.7
8	Zambia	10.0	79.1	12.6
9	South Africa	9.1	31.1	29.3
10	Tanzania	7.0	55.1	12.7
	Others	46.8	299.1	15.6
	Total	481.7	3,276.6	14.7

Source: Verenigde van Bloemenveilingen Nederland (VBN), from Uganda Horti-Floriculture Sector Technical Note 2.

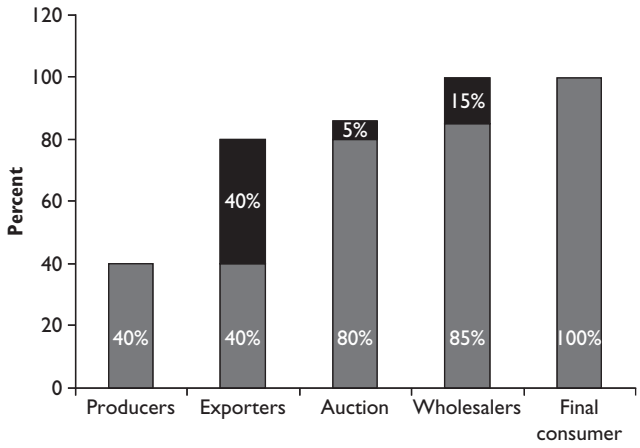
across many industries. Table 4.7 benchmarks Uganda's sweetheart rose production cost structure with that of Kenya's; this is illustrated in figure 4.17 (See table 4.8 and figure 4.18 for a comparison of the cost structure for cuttings production.)

Uganda produced more stems than Kenya, but Kenya's stems commanded a slightly higher price. Uganda was at a disadvantage in terms of the costs for airfreight, fertilizers and chemicals, and electricity and fuel. Net profit in Kenya was lower than in Uganda, despite Kenya's premium of half a cent per stem.

Understanding Uganda's cost position relative to its competitors allows for the development of a strategy. For example, in this case, if Uganda could lower its airfreight costs, and the costs of inputs, such as fertilizers, chemicals, and electricity, through efficiency gains, it could sell more flowers at a slightly lower price than Kenya.

In benchmarking the cost structure for cuttings, the most apparent conclusion is that Uganda does not have much comparative advantage in relation to Kenya. Again, airfreight costs and input costs are higher in Uganda, but net margin is still slightly greater in Uganda.

Figure 4.16 Value Chain Analysis for Flowers from Uganda



Source: World Bank Uganda Horti-Floriculture Sector Technical Note 2 (2004).

USING BENCHMARKING: CLUSTER STRUCTURE

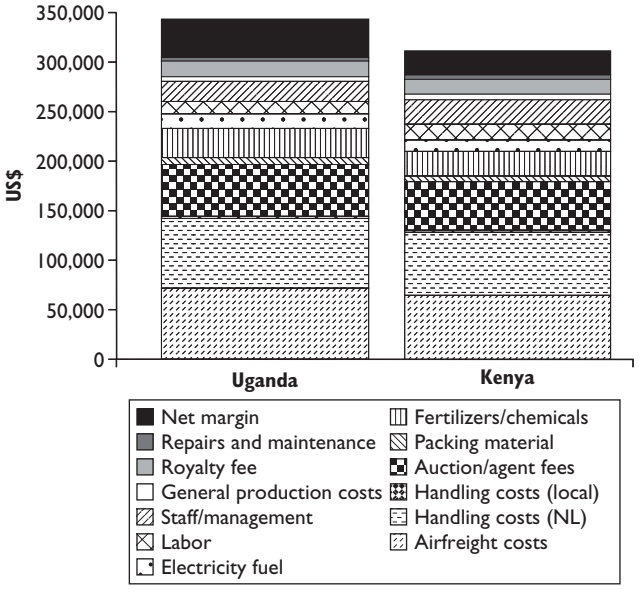
The assessment also benchmarked the structure of Uganda's floriculture cluster against those of Kenya and the Netherlands (see tool 12 for more information on clustering). The cluster assessment included important elements that are part of a value chain analysis, but also looked at the linked impact on cluster participants of driving forces and critical success factors. In table 4.9, Uganda is seen to be the weakest of the three countries. The Netherlands was included as a best practice case, against which Kenya performs moderately well. However, both Uganda and Kenya lack the specialized equipment and services needed to reach their potential. Prices for inputs in Uganda are about 10 to 20 percent higher than in Kenya. Also, several flights per day directly link Kenya to Europe and can be used for exporting flowers. Uganda has fewer direct flights to Europe, and exporters must often ship through Nairobi rather than directly to Europe. Both countries sell their flowers on the Dutch auction.

Table 4.7 Sweetheart Rose Production Cost Structure per Hectare: Uganda versus Kenya (*in USD*)

Description	Uganda	Kenya	Difference (Uganda minus Kenya)
Production (stems)	3,750,000	3,250,000	500,000
Average price per stem	0.088	0.094	–0.006
Gross sales	330,000	303,875	26,125
Airfreight costs	71,205	63,503	7,702
Handling costs (NL)	9,821	9,408	414
Handling costs (local)	1,473	2,352	–879
Auction/agent fees	52,800	48,620	4,180
Total marketing costs	135,300	123,883	11,417
Net sales	**194,700**	**179,992**	**14,708**
Packing material	6,250	5,559	691
Fertilizers/chemicals	30,000	25,500	4,500
Electricity fuel	15,000	11,250	3,750
Labor	12,775	16,425	–3,650
Staff/management	20,000	25,000	–5,000
General production costs	5,000	5,000	0
Royalty fee	15,400	15,400	0
Repairs and maintenance	4,000	4,000	0
Operational costs	108,425	108,134	291
Gross margin	86,275	71,858	14,417
Depreciation investments	30,000	30,000	0
Interest loans	18,000	18,000	0
Net margin	**38,275**	**23,858**	**14,417**

Source: World Bank Uganda Horti-Floriculture Sector Technical Note 2 (2004).

Figure 4.17 Components of Total Cost of Sweetheart Roses in Uganda and Kenya



Sources: J. E. Austin Associates, Inc.; World Bank Uganda Horti-Floriculture Sector Technical Note 2 (2004).

OUTCOMES

Based on the results and findings of the benchmarking exercise, floriculture industry leaders worked together to develop the *Ugandan Floriculture Competitiveness Plan: 2005–2010*. Elements of the strategies presented in the plan build upon the benchmarking exercise. The benchmarking exercise highlighted shortcomings in several areas, including product diversification, research and development, and transport costs. The plan looks to improve the Ugandan floriculture industry's performance through the accomplishment of five key targets and associated substrategies:[1]

1. Increase export volumes and values
   - Expand in existing markets with existing products
   - Open new markets with existing products
   - Establish a Europe-based unpacking distribution facility
   - Diversify and expand product offerings

2. Increase internal and foreign direct investment
   - Clarify strategic industry status
   - Develop and implement a floriculture investment incentives package
   - Develop an upland expansion plan
   - Develop financial support mechanisms for the industry
   - Develop and carry out investment promotion program

3. Improve technology and practices
   - Set up and maintain an effective cold chain management system
   - Facilitate expansion of fresh management services
   - Establish the Floriculture Training Development Center
   - Develop and install a product expansion program

4. Develop and launch a quality, branding, and marketing campaign
   - Strengthen Uganda's position as a quality service provider
   - Standardize export packaging
   - Develop and launch a floricultural branding program
   - Develop and implement a marketing program

5. Position the Uganda Flower Exporters Association (UFEA) for sustainability
   - Prepare and implement industry development support program
   - Produce revenue generation and sustainability plan

Today, the volume and value of exported cut flowers continues to grow, reaching 7,596 mt and US$34.72 million in 2006 (see figure 4.19). UFEA supports the industry through research, training, and market promotion. Producers are also focusing on quality assurance, standards, and certification, with several farms already applying for EurepGAP certification. A majority of the Ugandan growers have received MPS-ABC certification, indicating that they meet standards for EurepGAP's international environmental program focusing on pesticide use, recycling, and energy and water use. Therefore, Uganda is not only competing on the basis of lower costs, it has also moved toward competing on value, as seen by improvements made in quality and standards certifications.

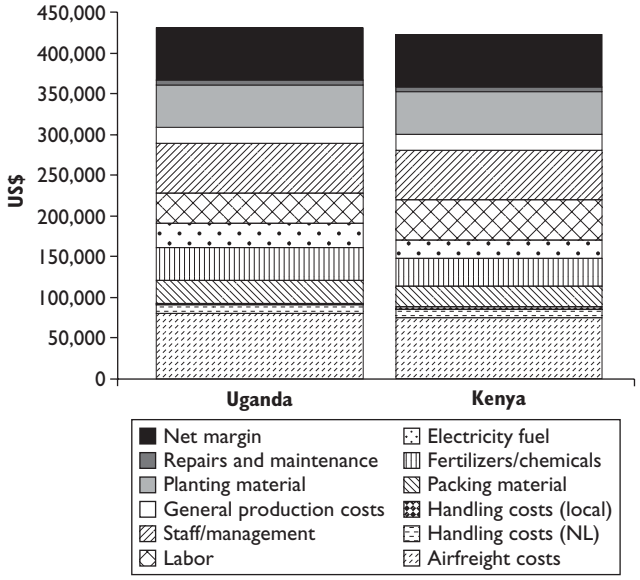
Most flowers are now shipped directly to Europe, rather than via Nairobi. Approximately 50 percent of the flowers are sold on the Dutch auction, with the other 50 percent sold directly to wholesalers and retail outlets in Europe.[2] Uganda has also begun shipping small quantities of cut flowers to the United States, which represents a new market opportunity for African flowers. In terms of product diversification, Uganda's competitiveness plan focuses on continuing to expand exports of sweetheart roses. However, one grower has established a farm at higher elevations to attempt growing larger-headed, higher-value roses.

Table 4.8 Cost Structure for Cuttings Production per Hectare: Uganda versus Kenya (*in USD*)

Description	Uganda	Kenya	Difference (Uganda minus Kenya)
Production	30,000,000	27,500,000	2,500,000
Average price	0.017	0.018	-0.001
Gross sales	495,000	484,000	11,000
Airfreight costs	79,750	74,250	5,500
Handling costs (NL)	11,000	11,000	0
Handling costs (local)	1,650	2,750	–1,100
Auction/agent fees	0	0	0
Total marketing costs	92,400	88,000	4,400
Net sales	**402,600**	**396,000**	**6,600**
Packing material	28,000	25,667	2,333
Fertilizers/chemicals	40,000	34,000	6,000
Electricity fuel	30,000	22,500	7,500
Labor	38,325	49,275	–10,950
Staff/management	60,000	60,000	0
General production costs	20,000	20,000	0
Planting material	52,500	52,500	0
Repairs and maintenance	6,000	6,000	0
Operational costs	274,825	269,942	4,883
Gross margin	127,775	126,058	1,717
Depreciation investments	40,000	40,000	0
Interest loans	24,000	24,000	0
Net margin	**63,775**	**62,058**	**1,717**

Source: World Bank Uganda Horti-Floriculture Sector Technical Note 2 (2004), VEK.

Figure 4.18 Components of Total Cost of Cuttings in Uganda and Kenya



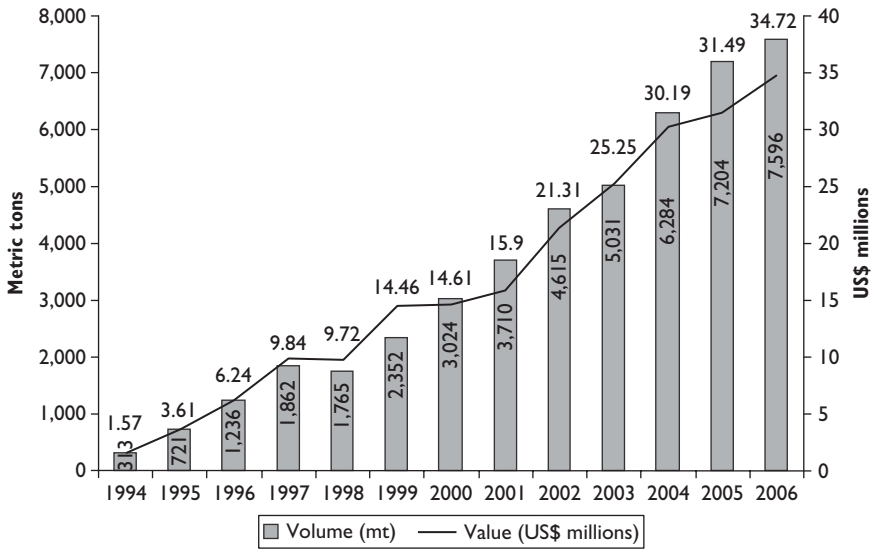
Sources: J. E. Austin Associates, Inc.; World Bank Uganda Horti-Floriculture Sector Technical Note 2 (2004), VEK.

Table 4.9 Driving Forces and a Comparison between Uganda, Kenya, and the Netherlands

		Uganda	Kenya	Netherlands
Driving forces	Society	+	+	++
	Entrepreneur	+	+	++
	Government	+/-	+/-	+
	Horticulture sector	+/-	+	++
Critical success factors				
Minimum set	Land and climate	+	+	+
	Labor	+	+	—
	Local infrastructure	+	+	+
	Agricultural input supply	-	+	++
	Water	++	+/-	+/-
	Access to the market	+/-	+	++
	Loans and credits	-	+/-	++
Additional set	Producer associations	+	+/-	++
	Skilled management	-	+	++
	Cargo handling facilities	++	+	++
	Promotion organizations	-	+/-	+
	Horticulture education	-	+/-	+
	Research and training	-	+/-	+
	Extension service	-	-	+
Sector network				
Services and production of inputs and materials	Seeds and plant material	—	+/-	++
	Soil and water testing facilities	-	+/-	++
	Growing medium	-	-	++
	Packing material	-	+	++
	Consultancy services	—	-	++
	Bookkeeping and accounting	—	-	++
	Certification institute	—	-	+
	Selection and breeding	—	-	++
	Greenhouse construction	—	-	++
	Greenhouse equipment	—	-	++
	Greenhouse covering material	—	-	++
	Fertilizers and chemicals	—	-	+
	Specialized transport	—	-	++
	Biological crop protection	—	—	++

Source: World Bank Uganda Horti-Floriculture Sector Technical Note 2 (2004).

Figure 4.19 Uganda's Flower Exports, 1994–2006



Source: Reprinted from USAID APEP Program.

NOTES

1. Building Uganda's Global Competitiveness in Agribusiness—The Uganda Floriculture Competitiveness Plan: 2005–2010. USAID.

2. Author interview with Christine Kiwanuka, USAID APEP Program.