CSCMP's Supply Chain [QUARTERLY]

Quarter 1 2015

Winning supply chain strategies for African markets

By ASHISH AVASTHY and ASHUTOSH DEKHNE

Africa's economies are growing, but poor infrastructure and difficult business conditions persist. Creative, flexible approaches to supply chain design and execution can help companies overcome these and other challenges.

This article marks the final installment of a three-part series by McKinsey & Company on managing supply chains in emerging markets. Part 1 discussed Latin America, Part 2 looked at Asia, and the current article, Part 3, explores supply chains in Africa. Each article includes an overview of business and logistical conditions, followed by recommendations for successfully navigating the supply chain challenges that are specific to that region.

Perceptions of Africa's business potential have shifted dramatically in recent years. Driven by strong fundamentals, the continent has become a priority for multinationals. In 2013, growth in Africa—which registered at 6 percent—outstripped that of Asia for the first time. Forecasts for the next decade suggest that Africa's growth will continue to rival that of emerging Asia, outpacing other emerging regions like Latin America, the Middle East, and Eastern Europe. Moreover, African economies are expected to expand more than twice as fast as those of the developed world.

For companies with goods and services to sell, the size of a region's consuming middle class is of critical importance. With its combination of growing population and rising wealth, Africa has a compelling story to tell here, too. In 2013, 49 percent of the continent's 220 million households had discretionary income. By 2015, that figure is expected to be 64 percent of 303 million households—an additional 86 million consuming households.[1]

Just as it is fast becoming wealthier, Africa's population also is becoming more urban. Forty percent of the continent's 1.1 billion people now live in cities, and the region has 54 cities of more than 1 million people—beating India's slightly larger population on both measures. [2]

Africa's economic development and its extensive natural-resources wealth have together encouraged significant foreign investment in recent years. Between 2006 and 2009, annual private-capital inflows rocketed from around US $30 billion to more than $80 billion, far outstripping both official development aid and remittances from African Ã©migrÃ©s around the world.[3] Businesses that put money into Africa have enjoyed strong returns on their investments, too. Rates of return on foreign direct investments in Africa have generally been higher than those for other regions over the same period.

[4]

Conditions for businesses vary dramatically from country to country. While a majority of countries in Southern Africa sit in the top half of the World Bank's global "ease of doing business" ranking, most of those in Central Africa are in the bottom quartile. Only one African country—Ghana—is in the top quartile by this measure. Moreover, Africa is home to nine of the 20 most corrupt countries in the world, according to Transparency International.[5]

The quality of logistics infrastructure also varies significantly across the continent. Today, for example, the airfreight hubs of Nairobi (Kenya), Addis Ababa (Ethiopia), and Johannesburg (South Africa) have relatively good air links with the East and South, providing sufficient capacity to meet current demand in those regions. Air cargo capacity in West Africa is still limited, however, although there are current projects in Luanda (Angola) and Abuja (Nigeria) that will deliver additional capacity within the next few years, allowing those cities to serve as air hubs for western African countries.

Similarly, there are significant variations in the logistics costs and lead times required to access different African markets; this is due to differences in the ease of cross-border trade. For example, importing auto parts through Port Appa, Nigeria, will take over three months. Importing the same parts through Durban in South Africa takes only one month, with port-capacity limitations and longer handling times accounting for most of the difference. Similarly, clearing customs at airports in the Democratic Republic of Congo can take more than 45 days, while customs clearance in South Africa takes only a few days. This means it might actually be faster, if not necessarily cheaper, to ship goods overland to the Congo from South Africa.

Navigating supply chain challenges

Africa presents unique, varied, and continually evolving challenges for supply chains. Even companies with long track records in the region are being forced to find new and creative ways to maintain growth and extend their reach into new countries and markets. While some of the lessons learned in other emerging regions are also applicable to Africa, it is likely that they will be only part of the solution. The rest will come from unique approaches tailored to specific countries, markets, and consumer groups.

In particular, companies will need to adapt their supply chain solutions in four specific ways:

1. Think of service and reliability first, then cost. Establishing a market in Africa requires, first and foremost, that customers have access to your products. Successful companies in Africa have invested significantly to make this happen, accepting higher initial costs in order to capture market share and customer loyalty.

Coca-Cola, for example, has developed a sophisticated multisegment distribution system to get its products to a broad "universe" of different outlets. Some of its segments look similar to the soft-drink maker's distribution arrangements in other markets, with direct-to-store deliveries to larger outlets and key-account customers. To get its products to thousands of smaller, rural outlets located on poor roads, however, the company has developed a radically different approach. A network of small "MDCs" (micro distribution centers) serve as local distribution nodes. MDC owners have handcarts that allow them to move product down the narrowest roads to outlets in their regions. They are also given access to financing and training in sales and merchandising skills to help them develop Coke's presence in their local outlets. Since launching the concept in Ethiopia in 1999, the company has developed a network of more than 3,000 MDCs across East Africa. Coca-Cola says that its MDC network handles the distribution of more than 80 percent of its business in some East African countries, providing employment for 13,500 people.[6]

The cosmetics company Avon has always used local salespeople to distribute its products to neighborhood customers. The company has adapted this strategy with great success in South Africa, training less-advantaged women to become door-to-door salespeople in towns and cities across the country. This approach has helped Avon become one of the most recognized cosmetics brands in South Africa, and it has provided a reliable income to thousands of women who had previously been economically marginalized.

2. Build partnerships. Managing hundreds or thousands of subscale supply chains has the potential to be prohibitively expensive, even when treated as a long-term investment to build brand presence and market share. One key mitigating strategy adopted by successful companies in Africa is to find synergies and partnership opportunities that allow the costs and benefits of particular supply chain channels to be shared between noncompeting organizations.

A United Kingdom-based nonprofit called ColaLife, for example, uses Coca-Cola's distribution system to transport medicines to remote villages in Africa. The company has developed a wedge-shaped package that can fit into the gaps between bottles in the standard Coca-Cola crate, allowing drugs to be transported with no effect on the truck fill rates or the efficient packing and shipping of the core product. In addition, payment for transporting the medicines provides a useful additional source of income for the members of the Coca-Cola supply chain, from the manufacturer all the way to the rural retailers.[7]

In another example, a clothing retailer in South Africa joined with a state-controlled railway operator to develop a rail connection between its central distribution center and three ports located 400 to 1,000 km (250 to 620 miles) away. This link ensured faster, more reliable transportation for products imported from Europe and Asia, while pre-clearance arrangements and dedicated broker partnerships helped to speed customs clearance, which had previously taken a week or more.

Other organizations have recruited their own customers to play a more active role in their supply chains. A case in point is SMS for Life, a partnership involving drug maker Novartis, IT services company IBM, and mobile telephony company Vodafone. The three companies worked together to tackle the problem of poor supply chain visibility that leads to regular stockouts of malaria drugs in rural clinics in Tanzania. They built a system in which frontline health workers send a weekly stock count to a central database via short message service (SMS) text message. A simple Web interface allows health administrators to gain an immediate overview of drug inventory status, while the data also allow Novartis to ensure drugs are dispatched to the regions and clinics where they are most needed.[8]

Less than six months after rollout began, the SMS for Life system was collecting data from 129 health facilities. The improved transparency reduced the incidence of stockouts from 26 percent to 0.8 percent and improved the accuracy of stock-level information in the supply chain to 94 percent. The program's partners estimate that it has provided access to malaria drugs to an additional 300,000 people—a quarter of the region's 1.2 million population.

Another example comes from Ghana, where the mPedigree system has been developed to tackle the widespread problem of counterfeiting in the pharmaceuticals supply chain. Drugs are printed with a unique code, concealed by a scratch-off coating. When consumers obtain a package of drugs, they can send the code by text message to receive confirmation of the legitimacy of the product.[9]

3. Become a local citizen. Companies setting up in Africa today can face significant shortages in a number of areas, including skilled and experienced staff as well as component and materials suppliers. In the short term, most companies overcome these shortages by importing products, components, and talent from overseas. In the long term, however, a skilled local workforce and supply base are essential if organizations are to tailor their products to the needs of African markets and supply them at a price customers can afford.

Leading companies make the development of staff and suppliers a priority in their African operations. One automotive original equipment manufacturer (OEM), for example, brought in managers from India, the United States, and Europe for key roles in African facilities. While these skilled outsiders provided the drive and experience to ramp up operations and enforce global standards, they also provided extensive training to the local workforce to ensure sustainability as the company's business grew.

Building a strong local supply base in Africa takes time, so leading players start the process early, to ensure that local manufacturing capabilities are available to support future product development and manufacturing plans. For example, when one global engine maker set up facilities in South Africa, it encouraged four of its key suppliers to establish manufacturing or distribution operations close to its new facility. It then worked with local transportation providers to build an efficient delivery network between the new suppliers and its plant. Over time, five additional component suppliers have joined this network, setting up manufacturing locations or component warehouses to support just-in-time deliveries to the engine assembly plant.

4. Take advantage of economic agreements and growing trade corridors. To achieve economies of scale in African distribution networks, most companies with aspirations to serve large parts of the continent must adopt a regional approach. Picking the right regional breakdowns and developing the right network design within those regions can have a critically important effect on the reach, speed, and cost of such networks.

Many organizations find it useful to consider Africa as four zones, with roughly the same-sized GDPs. These zones are: Maghreb, Western Africa, South of Africa, and Eastern Africa (Figure 1).

For example, Supply Chain Management System (SCMS), a specialty supply chain partnership for medicines to support victims of human immunodeficiency virus (HIV), established regional distribution centers (RDCs) in three out of these four zones: in Ghana, Kenya, and South Africa.[10]

Ghana was chosen as the best location for the RDC in West Africa due to the availability of a nearby port facility, the country's relative economic and political stability, the willingness of the government to have the facility located there, and its proximity to Nigeria and CÃ´te d'Ivoire (two countries with high patent risk).

Kenya was chosen in East Africa for similar reasons, including the receptivity of the government to the RDC, its location in the center of the region, and the availability of a good airfreight hub, while South Africa's good infrastructure and access to ports for imports from the United States and Asia made it the logical choice for the South.

Some companies have developed supply chain approaches that serve regions beyond Africa itself. Ford Motor Company, for example, set up a parts distribution center in Nigeria to serve not only the entire African continent but also to reach several countries in the Middle East.

Recent investments in transportation infrastructure have provided better direct access to Africa's established industrial and urban markets as well as improved access to newer markets. For example, better rail networks have greatly improved the connections between smaller countries like Uganda, Rwanda, and Burundi with the port of Mombasa in Kenya. These links facilitate trade in both directions, allowing easier importation of foreign products while providing a more efficient means of exporting natural resources and agricultural products manufactured in the region.

Despite these improvements, much of Africa continues to struggle with poor logistics infrastructure and high distribution costs, requiring careful design of physical distribution networks (warehousing and transport) for commercial supply chains. Take road transportation as an example: The cost per ton-km in Africa exceeds the cost in Western Europe by at least 20 percent, and by as much as 120 percent, depending on the route.[11]

Increasingly, companies from consumer goods and mining industries are moving from national to regional distribution hubs as they push into Africa's smaller markets. While they continue to keep national distribution systems in Nigeria, South Africa, and many of the larger Northern African countries, they also are building regional distribution centers in West and East Africa to serve neighboring countries by sea, road, or air (or in some cases all three modes) and to optimize their logistics costs. For example, many companies use Dakar, Senegal, as a hub to serve francophone West Africa; Accra, Ghana, to serve English-speaking West Africa; and Tanzania or Kenya to serve East Africa. These countries tend to have more reliable inbound infrastructure—the airport in Dakar and the port in Accra are good examples—and their customs regulations are less onerous for exporting goods. In Senegal, for example, companies can use bonded warehouses for some products. In this model, there is no need to pay customs duties for products that will be distributed to other countries, only import duties at the final destination.

In addition to the traditional considerations, such as proximity to seaports and airports, transportation infrastructure, availability of labor, labor laws, and political stability, factors such as the strength of a country's legal institutions and the complexity and cost of regulatory processes need to be factored into the design of supply networks in Africa. One good example is Ford, which established its Ranger truck manufacturing operations in South Africa due to the strength of South Africa's legal system and the lower cost and complexity of compliance with business regulations there.

Some of the region's governments have formed economic alliances to enable a smooth flow of products within Africa. Although a pan-Africa alliance does not yet exist, and should not be expected in the immediate future, the current regional economic alliances are facilitating trade among their member countries (Figure 2).

Establishing distribution networks within these alliances should enable improved service levels to customers. However, there is significant variation in the legal and regulatory strengths of the countries within the economic alliances, something that should be taken into account as supply chains are developed. For example, relatively weak legal systems and more complex and costly processes make it more challenging to establish supply chains in the 15 members of the Economic Community of West African States (ECOWAS) than in the smaller East African Community (EAC). Meanwhile, the Southern African Development Community (SADC) is larger, better regulated, and simpler to operate in than either ECOWAS or EAC.

Be creative and flexible

Africa is growing more strongly today than at any time in its recent history. The continent's rising wealth is creating a surge in demand for a broad range of products. Meeting that demand across Africa's diverse physical, economic, and political conditions will require companies to be extremely creative and flexible with their supply chain solutions, however. The most successful organizations will be those that tailor their business and supply models to suit Africa's unique and varied needs.

Notes:

1. Canback & Company, Canback Global Income Distribution Database (C-GIDD); McKinsey Global Institute.
2. United Nations; IHS Global Insight; McKinsey Global Insight CityScope 2.2, *Urban world: Cities and the rise of the consuming class* (June 2012).
3. World Bank; International Monetary Fund; United Nations Conference on Trade and Development (UNCTAD) *World Investment Report 2013}*; McKinsey Global Institute Capital Flows Database.
4. United Nations Educational, Scientific, and Cultural Organization (UNESCO), *Adult and Youth Literacy: National, regional, and global trends, 1985-2015* (June 2013): 16.
5. Transparency International, "Corruption Perceptions Index 2013".
6. "Micro Distribution Centres: How Coca-Cola is helping entrepreneurs in Africa to set up their own businesses".
7. ColaLife.
8. "SMS for Life."
9. mPedigree Network.
10. Supply Chain Management System.
11. McKinsey & Company Supply Chain Practice analysis.

Article Figures

[FIGURE 1] AFRICA'S FOUR DISTINCT ZONES

MAGHREB

US $340 billion GDP (~20% of Africa) featuring sustained growth (4% per annum)

90 million inhabitants with a GDP per capita of ~US $7,000 (~2.4x African average)

US $260 billion trade flows (~20–25% of Africa) with moderate growth versus continent's peers (9% per annum)

Two distinct clusters of countries: (1) Net exporters (oil and gas reliant) (2) Net importers

Strong commercial ties with Western Europe (first partner for exports and imports)

Limited intrazone trade

EASTERN AFRICA

US $560 billion GDP (~31% of Africa) featuring fast growth (7% per annum)

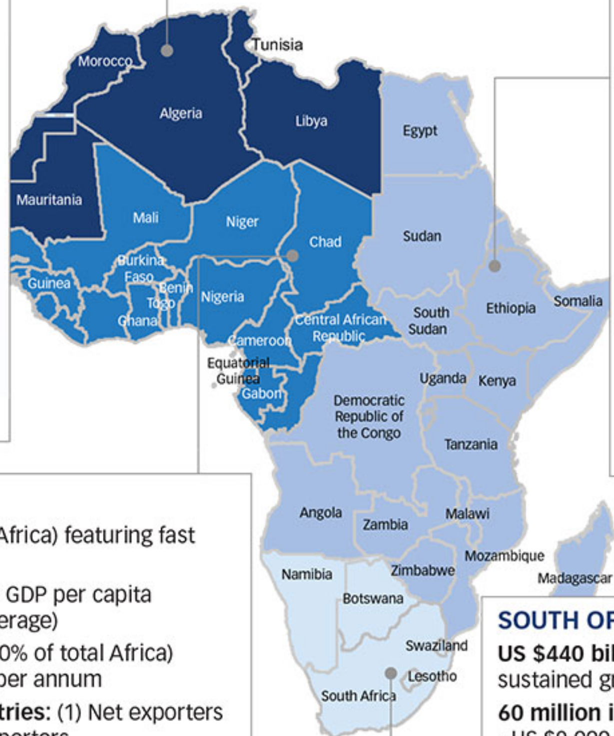
460 million inhabitants} with a GDP per capita of ~US $2,000 (~0.7x African average)

US $300 billion trade flows (27% of total Africa) featuring a fast growth rate (21% per annum)

Two distinct clusters of countries: (1) Net exporters (oil and base metal reliant) (2) Net importers

Strong commercial ties with China (first partner for imports and exports)

Extensive intrazone trade, with 500% growth for Common Market for Eastern and Southern Africa (COMESA) in the past decade



WESTERN AFRICA

US $450 billion GDP (~25% of Africa) featuring fast growth (6% per annum)

350 million inhabitants with a GDP per capita of ~US $2,000 (~0.7x African average)

US $350 billion trade flows (30% of total Africa) featuring a growth rate of 19% per annum

Two distinct clusters of countries: (1) Net exporters (oil and wood reliant) (2) Net importers

Strong commercial ties with China and USA

Extensive intrazone trade, with a strong monetary union and common stock exchange market

SOUTH OF AFRICA

US $440 billion GDP (25% of Africa) featuring sustained growth (4% per annum)

60 million inhabitants with a GDP per capita of ~US $9,000 (~3.2x African average)

US $220 billion trade flows (20% of total Africa, 50% of GDP) featuring a fast growth rate (21% per annum)

Net importers, import mainly oil; also export minerals, metals

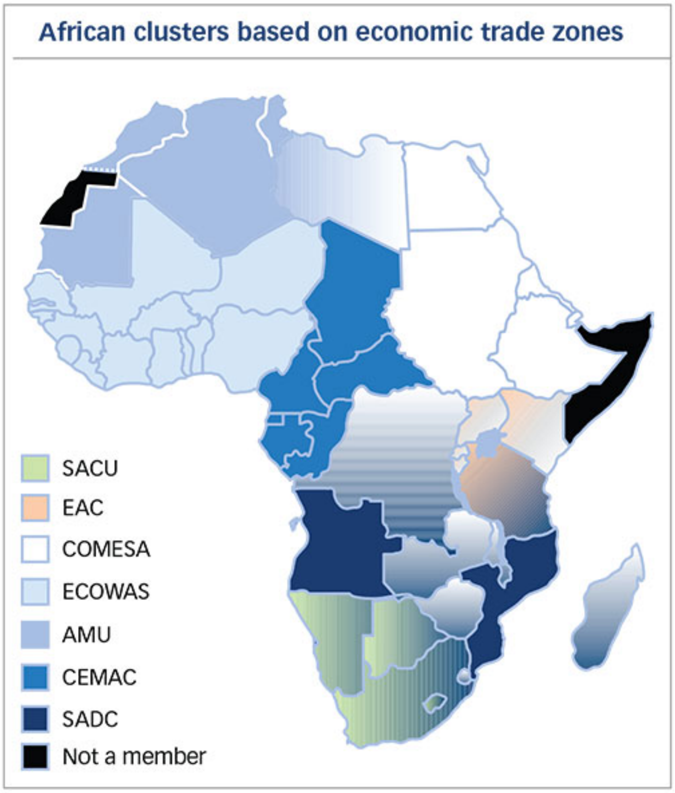
Strong commercial ties with China (first partner for imports and exports)

Extensive intrazone trade

GDP = gross domestic product

[SOURCE: WORLD BANK, MCKINSEY & COMPANY RESEARCH, TRADEMAP]

[FIGURE 2] CURRENT ECONOMIC ALLIANCES



1. All GDP (gross domestic product) and population figures are for 2012.
2. Libya is a member of both COMESA and AMU.
3. Democratic Republic of Congo is a member of CEMAC, SADC, and COMESA.
4. Madagascar, Malawi, Mauritius, Seychelles, Swaziland, Zambia, and Zimbabwe are members of both COMESA and SADC.
5. Tanzania is a member of both SADC and EAC; Kenya, Uganda, Burundi, and Rwanda are members of both EAC and COMESA.
6. All SACU members also belong to SADC.

Key facts[1]

COMESA: Common Market for Eastern and Southern Africa
- 19 member states
- Total GDP: US $561 billion
- Total population: 464 million

ECOWAS: Economic Community of West African States
- 15 member states
- Total GDP: US $416 billion
- Total population: 303 million

AMU: Arab Maghreb Union
- 5 member states[2]
- Total GDP: US $398 billion
- Total population: 89 million

CEMAC: Economic and Monetary Community of Central Africa
- 6 member states[3]
- Total GDP: US $70 billion
- Total population: 41 million

SADC: Southern African Development Community
- 15 member states[4]
- Total GDP: US $622 billion
- Total population: 281 million

EAC: East African Community Customs Union
- 5 member states[5]
- Total GDP: US $95 billion
- Total population: 143 million

SACU: Southern African Customs Union
- 5 member states[6]
- Total GDP: US $421 billion
- Total population: 58 million

[SOURCE: GLOBAL INSIGHT WORLD MARKET MONITOR, TRADING BLOC WEBSITES, WORLD TRADE ORGANIZATION]

CSCMP's Supply Chain Quarterly, Tower Square, Number 4, 500 E. Washington St., North Attleboro, MA 02760
CSCMP's Supply Chain Quarterly is published by Supply Chain Media LLC, a joint venture of CSCMP and AGiLE Business Media LLC. The views and opinions expressed in articles appearing in CSCMP's Supply Chain Quarterly are the authors' and do not necessarily reflect those of the Council of Supply Chain Management Professionals or of Supply Chain Media LLC.