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Entrepreneurship: A Case Study in African Enterprise Growth

Information Technology from the United States to Cameroon: Rebecca Enonchong and AppsTech

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REBECCA ENONCHONG LOOKED SATISFIED as she surveyed the construction of AppsTech's new office on Boulevard de la Liberté, Douala's main thoroughfare. She was her usual bubbly self as she bantered with the construction workers, chastising them about the delays in construction and their choice of fixtures. However, her cheerfulness belied the concern she felt about her latest venture—setting up a software consulting firm in Cameroon. Rebecca had come full circle since she left Cameroon many years ago for the United States, where she had worked and established a successful consulting firm. The entrepreneurial spirit of the Cameroonian people, their rapid adoption of technology and the upcoming stock exchange situated opposite AppsTech's new office all exemplified the hope and opportunity that Cameroon held for her. On the other hand, she faced several immediate hurdles: a poor economy, government interference and corruption and a prospective customer base that was not ready for AppsTech's services. Would AppsTech be able to overcome these seemingly insurmountable obstacles? Even if it did, what effect would it have on the firm's operations in the United States and Europe? Finally, was her approach of building a consulting practice in Cameroon the right strategy to follow? Rebecca mulled over these questions as she continued her day-to-day tasks in Douala.

1. Rebecca

Born in Cameroon in 1967 to a Cameroonian father and American mother, Rebecca moved to the United States in 1982. Rebecca started her career in accounting and finance and gained exposure to software technology through her financial work. She soon became enamored with the power of technology and spent endless hours obsessively reading application manuals from cover to cover to enhance her skill set. Rebecca moved into IT training and was soon recognized as an expert in Oracle products, becoming one of the earliest Oracle Financials certified instructors. She had her first brush with consulting while training staff at Egghead Software, a computer retailer. She found that her expertise in merging business issues with the usage of technical software applications was actively sought out by small-business customers, who asked her to install and handle their accounting systems. Rebecca quickly realized that people were willing to pay for her expertise in financial systems, and through this she gained confidence for her career move into financial systems consulting.

Rebecca had a prolific career as a financial systems consultant with both public- and private-sector clients, such as EduTech Computer Solutions and the Inter-American

Development Bank (IDB). Her training experience and recognition as an Oracle expert helped establish her credibility in the IT consulting world. Typically, Rebecca signed one- to two-year consulting contracts with organizations, as she preferred the flexibility provided by being a contractor rather than a full-time employee. In 1999, Rebecca had the opportunity to work as a subcontractor with Alleygius, a consulting firm that was staffing a project with GlobalOne. When she told a friend about it, he suggested that she sign a contract as if with a company rather than a person. This was the push Rebecca needed to catalyze her nascent entrepreneurial ambitions; she took his advice, and Application Technologies (AppsTech) was born when she won the consulting contract.

2. AppsTech[1]

Rebecca built AppsTech around what she knew best: helping organizations set up and run financial and enterprise resource planning. She got additional consulting projects, which she staffed primarily with IT consultants who were subcontractors to AppsTech. Rebecca then built the firm by employing some of these initial subcontractors and hiring people with whom she had come into contact during her teaching career. She had kept track of her best students and brought them to work at AppsTech. AppsTech also made strategic acquisitions when possible; it bought Apprio Inc. in June 2001, primarily for its Oracle-based application service provider (ASP) expertise.

AppsTech gets its revenues through the implementation of financial systems (primarily Oracle products) and from such application management services as database maintenance contracts. Ninety percent of AppsTech's customer base uses its application management services, which have low margins compared to system implementation. However, 30 percent of its clients have long-term contracts with AppsTech, providing it with a cushion through the current economic downturn. AppsTech charges clients a fixed price for its ASP services and does not base the price on the number of people working for a client. While a costly strategy initially, AppsTech reduced costs through learning and economies of scale. AppsTech started its ASP services with an average of eight database administrators (all contractors) per client, costing about $150,000 per month. Now it has brought the number down to 1.5 database administrators (all employees) per client, while providing the same or better quality of service. Today, AppsTech provides consultation, implementation, integration and support of IT solutions to both public-sector and private-sector clients through seven offices and close to 60 employees in the United States, Europe and Africa. In 2001, the firm made a profit of $2 million on sales of $6.3 million.[2]

[1] More details about AppsTech are in the exhibits.
[2] Source: Dun & Bradstreet.

3. Success Factors

In a time when software firms are imploding everywhere, AppsTech has been a remarkable success. Some of the most important success factors are discussed as follows:

3.1. "Chutzpah"

AppsTech's first successes were derived in part from Rebecca's initial resourcefulness; she created the aura of a "global" company at a time when AppsTech was simply a one-woman operation that staffed a couple of temporary consultants. Once, when a potential client from France flew to Maryland to see her operations, she managed to borrow some space on the floor where her own office was located, borrow some computers (and staff) from neighboring offices and set up a "call center" staffed by some temps she brought in for the day. AppsTech won the contract.

3.2. A Global Vision

From day 1 Rebecca envisioned AppsTech as a "global" company. Accordingly, she set out to build a sustainable business that had the resources and talents to compete internationally. Fundamental to her business were "globally minded" employees who shared her vision. She recruited talented people who were born or had lived outside the United States (most were from Africa) and/or spoke second and third languages. These employees gave the company the insight and language capabilities to serve customers with worldwide operations.

Rebecca also understood that a successful global company would be one that was built to compete based on its own merits and competence. She refused to compete for government work on the basis of being a minority-owned company[3]; to her, winning such business sidetracked her from the goal of being globally competitive in any context. When asked for her thoughts on being an African woman trying to do business in the United States, she scoffed, "I don't think about it. I can't consider about what I am or am not; I only know that AppsTech has to be better than everyone else."

3.3. Hard Work

As in any entrepreneurial success story, AppsTech required its share of sheer hard work and perseverance. In the first year of AppsTech's operations, Rebecca did not have a home of her own and slept at the homes of relatives and friends. She insisted, "I did not want to have to think about tending an apartment, cooking or cleaning. I could not have any distraction that would take me away from thinking about my business . . . not even for a moment." Her dedication was so extreme that when the company had a French client six

[3] Certain government contracts gave minority-owned businesses bonus points in the bidding evaluation. Rebecca qualified for these contracts on the basis of being a woman of color.

time zones ahead, Rebecca slept with her computer in her bed, stirring from her sleep to respond when she received an e-mail notification. A global business never slept, and neither could she.

Rebecca also watched her competitors like a hawk. She believed that her company's success rested on a keen sense of the competitors' next moves and she spent one to three hours nightly on competitive analysis. For example, she would check the domain names registered by competitors to get insight into their strategic moves. Rebecca attributed her ability to think strategically about the competition to her years in politics; she learned to watch and anticipate the opposition party's moves and form her own party's strategy accordingly.

3.4. Focused Strategy

Rebecca also believed that AppsTech could not afford to be opportunistic despite the many profit possibilities made available by her firm's robust technical skill set. When AppsTech had lulls in business, it resisted taking such jobs as Web site development or other small projects, even those current customers requested. While many of AppsTech's competitors were striving to be "full-service, one-stop shops" for their customers, AppsTech was committed to doing one thing and getting it right.

3.5. Internal Financing

Funds were limited, as Rebecca was neither willing to take on debt nor accept venture capital funding that would dilute her equity control of the firm. She had seen other firms fail due to pressure from external financiers and worried that giving up control would jeopardize her ability to make the right decisions quickly. Thus, she relied solely on internally generated funds (reinvested profits) and temporary lines of credit to feed and grow her company. Even the acquisitions were paid for with cash, avoiding any dilution in equity control of the firm.

Unlike other technology start-ups of the late 1990s that burned through cash at alarming rates, AppsTech did not have the luxury of external financing. It put in place strict processes that forced all employees to make efficient decisions about resources. For example, Patricia Gbeti, AppsTech's financial controller, had the final say on all expenditures. Rebecca joked that despite being the CEO, even she could not cross Patricia!

3.6. Leadership

Rebecca was the daughter of a Cameroonian chief, and perhaps she learned the art of leadership from him. She believes that people adopt attitudes and behaviors that they respect in others. Accordingly, she set high expectations of discipline, work ethic and excellence among the employees and motivated them to share her "won't take no for an

answer" attitude. Rebecca also fundamentally believes that in any situation the realm of possibilities far exceed what is apparent. So, when employees approached her for help, because a certain issue with a client could not be reconciled, she would insist that they consider other possibilities and search harder for a solution. On a technical level, Rebecca was known to stop employees in the office halls and test them on their software knowledge.

3.7. Employees

When hiring, AppsTech specifically looked for people with business, product and global knowledge. Such behavioral traits as open-mindedness and the ability to disagree without animosity were also key. Through all this, Rebecca created not only a culture of excellence, but also a culture in which employees cared about one another and believed that their AppsTech colleagues were a second family. Their dedication to one another had been recently tested: Slowing business in light of a declining economy necessitated that AppsTech implement significant cost-cutting measures. Employees came together and proposed a cost-reduction solution of taking cuts in their personal benefits in order to avoid any layoffs. Furthermore, in a sign that they shared Rebecca's vision, they never even broached the subject of reducing AppsTech's support for philanthropic activities related to Africa, which required significant effort and financing.

4. A Desire to Do Good

Through all her years in the United States, Rebecca had not forgotten Africa. She was arrested at the tender age of 17 for participating in a "Free South Africa" demonstration outside the South African Embassy in Washington. She was an active member of the Cameroonian and African communities in the United States, and a strong supporter of democracy, peace and human rights. The Cameroonian media and Voice of America highlighted her involvement in Cameroon's prodemocracy movement.

In 1999, along with other entrepreneurs of African origin, Rebecca founded the Africa Technology Forum to promote technological advancement and the development of entrepreneurship in Africa. When asked about the source of her drive, Rebecca responded: "The power of technology excites me almost as much as a good meal. The desire for all to have a good meal drives me harder."[4] Rebecca wanted to spark a "technology movement" that would allow for greater access to modern computer technology in Africa.

[4] *Enterprise Africa*, "Question and Answer with Rebecca Enonchong," interview transcript.

5. Africa

Rebecca and her colleagues at AppsTech felt strongly that business could be used as a force for good: to accelerate economic growth, improve business efficiency and reduce poverty in Africa. Creating a successful company led by African entrepreneurs with significant operations in Africa would provide tangible proof that businesses can succeed in Africa today. They also believed strongly in the power of technology, as it gave hope to the millions of educated and unemployed youth in Africa. Growing AppsTech's operations in Africa would not only create local jobs, but also help spread technology. Finally, building a successful firm without using corrupt business practices could lead to broader economic gains if others followed their example. Accordingly, Rebecca and her team always had a fourth, unspoken aim for AppsTech: to build a sustainable technology business in Africa. They planned to do this by targeting a growing customer base of newly privatized corporations, government agencies and international organizations that needed integrated IT systems solutions.

While AppsTech was building on its successes in the United States and France, it also took a few tentative steps in Africa. It started with Oracle training work in Lagos (Nigeria) and Bamako (Mali). Though these initial forays were not good experiences for AppsTech, they did provide valuable lessons about how to build a business in Africa: AppsTech would have to be physically present on the ground in order to control the working environment. Additionally, Rebecca and her team would need to be selective with clients if they wanted to build a business the right way: that is, treating employees well, adding value to clients and not resorting to bribes.

The early work in Africa convinced Rebecca that AppsTech should initiate its work in Africa by first establishing itself in Cameroon. Several reasons led to this decision: the signs of change in Cameroon, Rebecca's contacts, her knowledge of the local methods of doing business and AppsTech's relationship with Soft-Tech, a software firm in Cameroon. Rebecca had long known Soft-Tech's founder, Tham, having worked with him for a period in the United States. Rebecca admired the quality of the people at Soft-Tech and the kind of projects they worked on. She was confident she could use the firm's good name in the market to establish AppsTech.

6. Cameroon

The Republic of Cameroon, formed when the former French Cameroon and part of British Cameroon merged in 1961, is one of Africa's most geographically and culturally diverse countries. It is shaped somewhat like a boot, with an area of 475,000 sq. km. (about the size of Spain). Cameroon has rainforests stretching north from the Atlantic Ocean, giving way to savannah and semidesert in the north, with mountainous regions in between and in

the northwest, near Nigeria. The variations in rainfall from one region to the next are astounding, from barely any rain in the extreme north to over more than 200 inches in the southwest around Mount Cameroon. Most of the country's 16 million people live outside of the swelling cities of Yaoundé, the capital, with about 1.4 million people, and Douala, the largest city and an industrial center, with 1.9 million people. Cameroon's cultural diversity is also amazing, with more than 130 ethnic groups in the country speaking dozens of languages, as well as the legacy of its French and British colonial past.[5]

Because of its oil resources and favorable agricultural conditions, Cameroon has one of the best-endowed primary commodity economies in sub-Saharan Africa. Real GDP is forecast to grow by 4.8 percent in 2001–02 and 5.1 percent in 2002–03. It has many of the serious problems facing other underdeveloped countries, such as a top-heavy civil service and a generally unfavorable climate for business enterprise. The president, Paul Biya, keeps a tight grip on the machinery of the state, the military, the judiciary and the media.

Cameroon's economic policy is, however, greatly influenced by the IMF though the heavily indebted poor countries (HIPC) initiative. The government agreed to several reforms focused on improving governance and speeding up privatization under the 2000–03 poverty reduction and growth facility (PRGF). The policies include reforming the public procurement system, setting up anticorruption units in ministries, completing the privatization of water and telecommunications services and two large agroindustrial companies, Sodecoton and the Cameroon Development Corporation (CDC), and selecting a private company to operate the container terminal at the port of Douala. The pace of reform has been slow due to the government's limited institutional capacity and political factors, and privatization has become increasingly unpopular because of the disappointing performance of the newly privatized electricity and railway companies.

7. Market

The market for implementing enterprise applications is limited in Cameroon, primarily because they are complex and require about a year to install and implement. The costs are also quite substantial, ranging from $100,000 for a simple Oracle Financials package to a couple of million dollars for more complex software solutions. Given the costs, the demand for AppsTech's services is quite limited at present. Rebecca and her team are willing to invest in building a sustainable business in Cameroon for at least one to two years. The profits from AppsTech's European and U.S. work will easily be able to sustain AppsTech in Cameroon during this period. Rebecca and her team are focused on getting their first client within this time period and hope that privatization and economic growth will result in a larger client base in two to three years.

[5] Source: Lonely Planet.

Potential clients for enterprise applications include such multinationals as AES-Sonel (a subsidiary of AES, the U.S. power company), MTN (the local subsidiary of a telecom firm based in South Africa) and Mobilis (a wireless phone service provider owned by France Telecom). The multinationals are receptive to using technology to improve business performance, but the decision about technology solutions is often made at the multinational level and not at the country level. Furthermore, the choice of software at the local level is driven by issues of compatibility with software used by the rest of the firm. Local firms that could use AppsTech's services include Potayangma's insurance firm, Sakom and Citacam (the local tobacco company). While they do not have parent companies to answer to, they present their own set of challenges (discussed in a later section).

8. Competition

Several small software firms are currently operating in Cameroon, though none have a focus on or expertise in enterprise applications. Most firms focus on custom software development, and their products and services are used by small- to medium-sized businesses. Soft-Tech, with which AppsTech has a relationship, is one such firm. CGComm, ICCNet and CDI also operate in this market. CDI is Soft-Tech's and AppsTech's primary competitor; it has more software developers and was also the local Oracle representative. CDI is, however, more of a sales organization focused on selling Oracle's database products, unlike AppsTech, which concentrates on implementing Oracle applications. Furthermore, CDI's credibility in the market is questionable, given that it uses Informix products internally while selling Oracle products to clients. It also relies on suspect means to generate sales, especially where government agencies are concerned.

In addition to the local competition, AppsTech also has to consider the complementary role of Oracle. Oracle has started its fully owned sales office for Africa, and Guy Wanji, the former head of CDI, heads Cameroon's Oracle Africa office. Given Soft-Tech's and AppsTech's histories with CDI, the relationship with Oracle Africa is not good. Still, Rebecca and her team do not see this as a problem because AppsTech has a very good relationship with Oracle in the United States and because they don't think that the service provided by Oracle Africa adds much value. Overall, AppsTech is much more worried about competition in the global arena than in Cameroon.

9. Doing Business in Cameroon

Being an entrepreneur in Cameroon is no easy task. Registering the business takes several months, requiring several forms, affidavits and trips to Yaoundé, the Cameroonian capital. Such administrative necessities as setting up corporate bank accounts are also a hassle, as

most bankers (in the United States or Cameroon) do not take entrepreneurs seriously. For AppsTech in Cameroon, this situation was compounded by the fact that it is a technology business and had few assets with which to persuade a bank to approve a corporate account.

The business situation for AppsTech in Cameroon is further complicated by the lack of widespread use of technology within firms. The abundance of Internet cafés and computer centers in Douala is evidence of people's belief in technology. This belief, however, finds few adherents at the corporate level; executives are skeptical of the productivity gains possible through the use of enterprise applications. In some ways, the situation in Cameroon is similar to that in the United States a decade ago, when most managers needed to be educated about the importance of enterprise technology to their firms. AppsTech plans to do this by creating a buzz for its services through seminars, demos to potential clients and advertisements in such business publications as *Economia* and *Jeune Afrique* and by focusing on its credentials as a global technology firm. Another obstacle to market acceptance of AppsTech's services is that some managers feel threatened by enterprise applications, because it could improve transparency within the firm and thus prevent them from manipulating business records for their needs.

The technology infrastructure in Cameroon is very basic and does not allow AppsTech to offer ASP services and Web hosting, services that are offered by the firm in the United States and Europe. AppsTech faces problems even with its regular consulting services, as clients are not used to software consulting. They prefer to pay for just the product rather than pay over a period of time for the consulting and training services required. Another challenge is an existing perception among Cameroonians that the services of foreign firms are better than those offered by local firms. Rebecca worries that local clients will not be willing to pay AppsTech's fees for Cameroonian consultants; they will expect foreigners.

Personal relationships govern how business is done in Cameroon, a significant deviation from Rebecca's professional, merit-based approach in the United States and Europe. Initial discussions about the business can never be conducted over the phone. It is essential to first meet personally with the client before discussing business. Furthermore, the initial contact has to be made through mutual friends; cold-calling to set up a meeting leads to a swift end to hopes of doing business. Vincent Miko, AppsTech's business development manager for Canada and Africa, describes the selling process in Cameroon as one that requires a good deal of patience. Identifying a client's needs and pinpointing the best solution takes several times longer than in the developed world. Finally, there is the issue of personalizing a business, whereby AppsTech could be regarded as Rebecca's firm and not as a separate entity. This potentially could lead firms and people to work against AppsTech to get back at Rebecca or her father, a prominent chief and judicial official.

10. People

Enterprise applications are primarily a driver of business performance. Therefore, people selling these products and services need to be skilled in both the technology and the business aspects. While Cameroonians are technically very skilled, they often lack adequate business knowledge. For this reason AppsTech expects to relocate employees from the United States to work in Cameroon. AppsTech has tapped into a vein of people of African origin who want to go back to their homeland. It believes it will be able to relocate people without having to pay them dollar- denominated salaries, keeping costs down in Cameroon. The local salary levels, however, have to be high enough to guarantee a comfortable standard of living, something that few people are willing to compromise on when relocating. Eventually AppsTech hopes to hire locally and train these employees in the United States and Europe and alongside the employees relocated to Cameroon.

11. The Future

Rebecca and her team always kept their long-term plans for Cameroon in the back of their mind: they wanted to see Cameroon developing as an offshore center for technology, much like India had done in the 1990s. Given Cameroon's bilingual and technically trained workforce, they were optimistic about this possibility. AppsTech planned to use Cameroon as a base for developing homegrown applications (such as wireless extensions to Oracle financial applications) that could be offered to clients throughout the world.

There were, however, a lot of hurdles to overcome before their vision would become real. AppsTech would first have to be successful in Cameroon. So far it had not faced any external threats to its business, but would the government continue to refrain from interfering with AppsTech given Rebecca's father's prominence and her past political activities? Another important issue was the difficulty of running a business in the United States and Europe in a demanding business environment while simultaneously shepherding its fledgling operations in Africa. Would the dual needs prove to be too much for Rebecca and her top management team? Furthermore, though AppsTech's employees supported the attempt to establish a business in Africa, it was not certain whether their support would remain unconditional in the future. Finally, was AppsTech doing the right thing by trying to first build a business in Cameroon, or should it immediately attempt to build on the offshore development model? Rebecca and her team had these serious issues to grapple with over the next couple of years.

Exhibit 1. AppsTech's Management Team[6]

Seasoned experts. Global leaders.

Rebecca Enonchong, Founder and Chief Executive Officer

Rebecca Enonchong is founder and CEO of AppsTech (www.appstech.com), a leading global provider of enterprise application solutions.

Prior to founding AppsTech, Enonchong worked for such organizations as EduTech Computer Solutions and the Inter-American Development Bank (IDB) and as an independent consultant serving multinational clients. Enonchong has also held senior finance positions with the Atlantic Companies, the Washington Business Group and Hyatt Hotels.

In addition to her wide array of professional achievements, Enonchong's accomplishments also include an extensive list of personal initiatives in the nonprofit arena. A native of Cameroon, Enonchong has devoted much of her life to promoting African interests, both in Africa and in the United States. She is founder and chairman of the Africa Technology Forum (www.africatech.org), a nonprofit organization dedicated to promoting technology in Africa. She also serves on the UNIFEM (United Nations Development Fund for Women) Global Advisory Committee on the Digital Divide.

A recipient of *Enterprise Africa*'s 2001 African Entrepreneurship Award, Enonchong was also named a Global Leader for Tomorrow (GLT) by the World Economic Forum of Davos, Switzerland, as part of the annual award that recognizes outstanding leaders around the world. Enonchong has been featured in several leading newspapers and magazines, including th*e Wall Street Journal,* the *Washington Post*, *MBE* magazine and *ComputerWorld* and has appeared on both CNN and CNNfn.

Enonchong holds both a Bachelor of Science and a Master of Science in Economics from the Catholic University of America and is fluent in English and French.

Muyiwa Idowu, Chief Operating Officer

Muyiwa Idowu directs AppsTech's global expansion and oversees the company's finance and human resources departments. Idowu, who was raised and educated in Nigeria, has more than 20 years of experience designing and implementing financial and other IT solutions for governments and corporations and has advanced expertise in Oracle Financials software.

Prior to joining AppsTech, Idowu was an advisory consultant to the U.S. Department of Education, where he was credited with streamlining the department's core treasury and cash management processes. He also played a major role in the accomplishment of the U.S. Small Business Administration's first unqualified audit opinion in 1997. In the United Kingdom, Idowu led audits of companies in various industries while working with Ernst & Young in London and served as financial controller for the Programmes Group of Companies.

Idowu holds a Bachelor of Science in Economics and Accounting from the University of Ife, Nigeria, and is a chartered accountant and a certified information systems auditor.

Jean-Michel Texier, Executive Vice President of Technology Solutions

Jean-Michel Texier oversees the implementation and support of AppsTech's ASP (application service provider) and onsite e-business solutions worldwide. Texier has more than 17 years of global IT experience, with advanced expertise in Oracle products, including ERP (Enterprise Resource Planning) applications, database engines and development tools.

[6] Source: www.appstech.com.

Prior to joining AppsTech, Texier was Chief Information Officer (CIO) of the World Wildlife Fund (WWF), the world's largest independent conservation organization, with a global network of five million supporters and 27 national organizations. As CIO, Texier was instrumental in upgrading the WWF's legacy and proprietary systems and in introducing Web-based solutions to streamline the data consolidation process between WWF headquarters and all of its field offices worldwide. In addition, Texier also held several senior management and analyst positions at Applied Research Laboratories and Federal Polytechnic University, both in Lausanne, Switzerland.

Texier holds a Master of Science in Information Technology degree from Federal Polytechnic University in Lausanne, Switzerland, and a Bachelor of Science degree in Math and Physics from the Scientific University of Orsay in Paris, France. A French national, Texier is fluent in English, French and Spanish.

Olukunle Malomo, Chief Strategy Officer and Head of Mobile Applications Group

Prior to joining AppsTech's board of executives, Olukunle Malomo was founding president and chief executive officer of HummingBox, Inc., a communications infrastructure company based in Philadelphia, Penn. and chairman of the board of AfricSoft Inc., an offshore software development company based in Nigeria.

Malomo's background and experience include positions with both IBM Global Services and Cap Gemini US and U.K., as well as a wide array of professional accomplishments. Recently, Malomo was selected by the World Economic Forum as one of its 100 Global Leaders for Tomorrow in Davos, Switzerland. Previously featured in *Fortune* magazine, the *Wall Street Journal*, *Smart Money* magazine and *World Link* magazine, Malomo was a recipient of both the Shils Zeidman Fellowship for Entrepreneurship and the Henry Morgenthau Fellowship at the University of Pennsylvania's Wharton Business School, as well as the winner of Wharton's Whitney M. Young New Venture Competition.

Malomo is also an active participant in the Digital Nations initiative at the Massachusetts Institute of Technology Media Lab and sits on the advisory boards of several organizations, including Diaspora Development Corporation, Encabler, Inc. (broadband interactive TV and smart agent technologies), and the Adriatic Research Institute (optical networking and MEMS).

Malomo holds a Bachelor of Science in Electrical and Electronic Engineering from Obafemi Awolowo University, Ile-Ife, Nigeria, and an MBA from the Wharton School, University of Pennsylvania.

Exhibit 2. About the Firm[7]

Strategy

There are three key elements to the firm's strategy:

- Obtain affiliations with industry leaders in enterprise applications, such as Oracle and SAP
- Offer clients added-value services by closely customizing outsourced IT packages to their specific business needs
- Establish long-term customer relationships

Rationale for Choosing a Client

AppsTech examines potential client assignments along the following dimensions:

- Can we do the work, i.e., are we technically capable for the work?
- Can we add value to the client?
- Will we get paid in a timely manner?[8]
- Are we the best for the client?

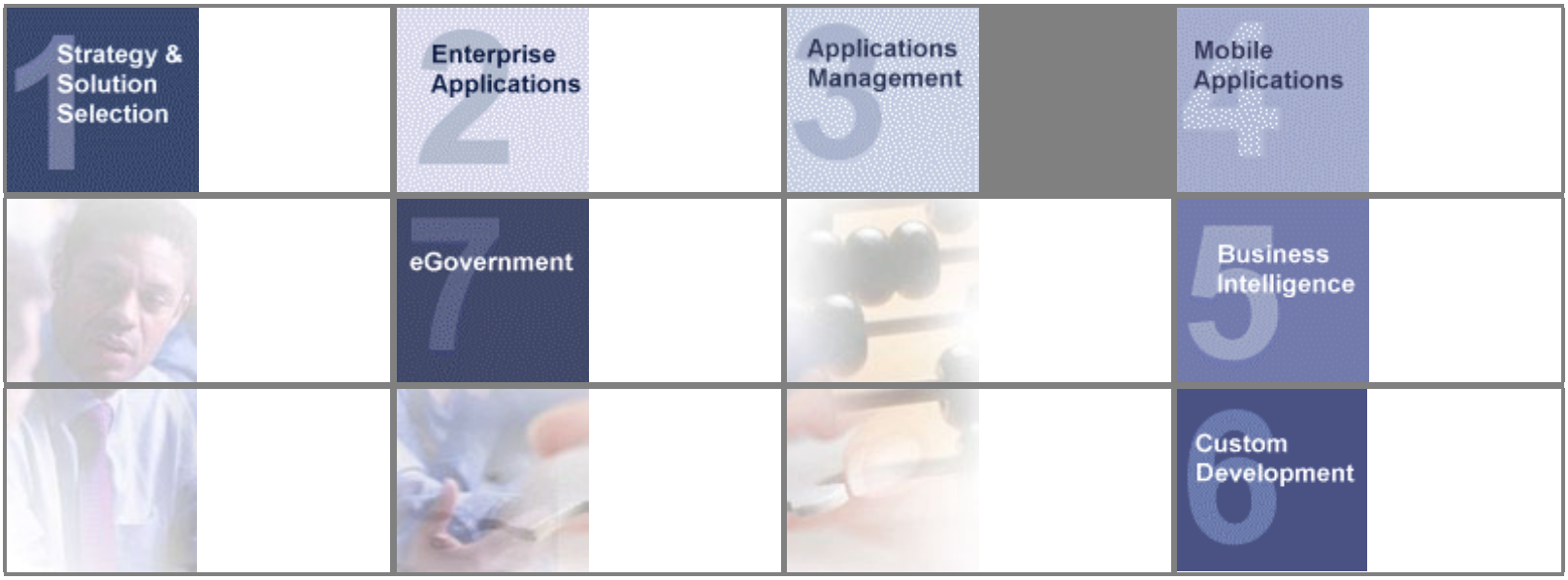
Client Acquisition

- After deciding on a potential client, AppsTech uses the following steps:
- Approach clients through functional heads (CFOs, VPs) rather than technical heads
- Create a need for AppsTech's services by emphasizing the transactional and informational efficiencies of financial systems
- Follow a process for each of its clients: Presales Consulting → Implementation → Training → Maintenance

[7] Source: Interviews with Rebecca Enonchong and Vincent Miko.
[8] In Africa, governments often fail this criterion.

Exhibit 3—AppsTech's Solutions[9]

Comprehensive. Scalable. Flexible.



With products from such providers as Oracle, SAP and PeopleSoft, AppsTech's full suite of e-business integrated solutions address the complete range of e-business challenges faced by businesses and organizations today. Our multidisciplinary expertise and global approach equip us with the knowledge capital necessary to develop customized solutions based on each client's specific business requirements.

The scalability of our applications allows our e-business tools to increase or decrease in performance and cost, regardless of changes in application or system processing demands, thereby guaranteeing our clients maximum flexibility and ROI.

We offer integrated solutions in the following areas:

- Financials
- Human Resources
- Customer Relationship Management
- Supply Chain Management
- Manufacturing
- Procurement
- Business Intelligence
- Order Management
- Self-Service Applications

BUSINESS OBJECTS®

ORACLE®

PEOPLESOFT®

SAP

[9] Source: www.appstech.com.

Exhibit 4. AppsTech's Clients[10]

Our single focus. Our strongest partners.

AppsTech works with private- and public- sector corporations around the world, spanning the entire gamut of industry and government corporations, educational institutions and nonprofit organizations. Not only are these companies our clients, they are our partners. Their challenges are our challenges. Their success is our success.

Our partners all have one common vision—success in the new economy. At AppsTech, we help make this vision a reality. AppsTech is proud to provide our clients with necessary strategic capabilities to become leaders in their marketplace.

	U.S. Department of Education Government Strategy - Project Management - IV&V
equant GlobalOne	**Global One/Equant** Communications Applications Management - Custom Development - Implementation
BROCK TOOL & SUPPLY	**Brock Tool & Supply** Distribution Implementation
MERVIS DIAMOND IMPORTERS	**Mervis Diamond Importers** Retail Implementation
GTS	**Global TeleSystems** Communications Strategy - Implementation - Custom Development
Net2000 COMMUNICATIONS	**Net2000** Communications Implementation
Nabors Industries, Inc.	**Nabors Industries** Energy / Industrial Knowledge Sharing / Education
	U.S. Department of Commerce Government Strategy - Implementation - Applications Management
xmlsolutions VITRIA	**XML Solutions / Vitria** Technology Implementation - Applications Management
CDC	**Centers for Disease Control** Government / Health Care Implementation
Québec	**Government of Quebec** Government Knowledge Sharing / Education
LAGOS STATE	**Lagos State Government, Nigeria** Government Implementation

[10] Source: www.appstech.com.

Exhibit 5. Cameroon[11]

Religions: Indigenous beliefs 40%, Christian 40%, Muslim 20%
Languages: Twenty-four major African language groups, English (official), French (official)
Literacy: Total population 63.4%, male 75%, female 52.1% (1995 est.)
Labor force by occupation: Agriculture 70%, industry and commerce 13%, other 17%
Unemployment rate: 30% (1998 est.)
Currency: Communaute Financiere Africaine franc; the responsible authority is the Bank of the Central African States

[11] Source: *The World Factbook 2002;* www.cia.gov/cia/publications/factbook/geos/cm.html.

Exhibit 6. Cameroon's Indicators[12]

Population trends

	1999	2015
Total population (m)	14.6	20.2
Annual population growth rate (%)	2.7	2.1
Urban population (% of total)	48.0	58.9
Population under age 15 (% of total)	43.4	39.5
Population aged 65 and above (% of total)	3.6	3.8

Source: UN, *Human Development Report*, 2001.

Health indicators, 1999

(% of total population unless otherwise indicated)

	HDI ranking[a]	Life expectancy[b]	Infant mortality[c]	HIV[d]
Cameroon	125	50	95	7.73
Gabon	109	52.6	85	4.12
Equatorial Guinea	110	50.6	105	0.52
Nigeria	136	51.5	112	5.06
Chad	155	45.5	118	2.69
Central African Republic	154	44.3	113	13.84

[a] The UN Development Programme ranks 162 countries according to a range of variables to produce an overall human development index (HDI). [b] At birth, in years. [c] Per 1,000 live births. [d] Percentage of the 15-49 age group with the virus.

Source: UN, Human Development Report, 2001.

Main economic indicators, 2000/01[a]

Real GDP growth (%)	5.5
Consumer price inflation (av; %)	1.2
Current-account balance (US$ m)	47
Exchange rate (av; CFAfr:US$)	735.8
External debt (US$ bn)	9.4[b]

[a] Fiscal year ending June 30th. [b] Calendar year 1999.

Sources: Banque de France, *La Zone franc, Rapport annuel*; World Bank.

[12] Source: The Economic Intelligence Unit Country Profile (2001). The EIU is part of the Economist Group.

Exhibit 6. Cameroon's Indicators (continued)

Comparative economic indicators, 2000

	Cameroon[a]	CAR	Gabon	Chad	Congo	Equatorial Guinea
Nominal GDP (US$ bn)	9.7	1.0	5.1	1.4	3.1	1.4
Real GDP growth (%)	5.5	1.4	–1.2	–0.3	7.5	16.8
Consumer price inflation (%)	1.2	3.1	0.5	3.0	–0.3	4.6
Current-account balance (US$ m)	66	13	605	–13	368	–48
External debt (US$ bn)[b]	9.4	0.9	4.0	1.1	5.0	0.3
Debt-service ratio, paid (%)	24.3	12.1	19.3	10.3	1.4	0.8

[a] Fiscal year beginning July 1st. [b] 1999.

Sources: Banque de France, *La Zone franc, Rapport annuel*; World Bank.

Privatisation programme, 1999-2001

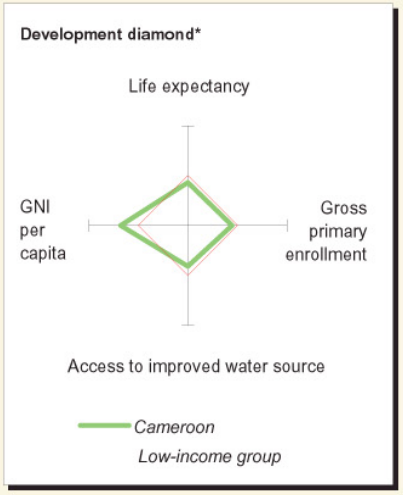
	Sector	Equity (CFAfr bn)[a]	Share in public ownership[b]	Status
Cameroon Development Corporation (CDC)	Agriculture	15.626	100	Privatisation stalled owing to dispute over indigenous land rights
Société de développement du coton (Sodecoton)	Agriculture	4.529	70	Privatisation delayed by a legal dispute, which is now resolved
Société nationale d'électricité (Sonel)	Electricity	30.000	95	Privatisation completed
Société nationale des eaux du Cameroun (SNEC)	Water	6.500	95	Successful bidder selected. Negotiations with government near completion
Cameroon Airlines (Camair)	Transport	5.250	96	New management appointed to restructure company before privatisation
Société camerounaise des dépôts pétroliers (SCDP)	Transport	n/a	n/a	Privatisation delayed, but invitation to tender scdeduled for 2002
Société de transport de conteneurs (Camtainer)	Transport	360	25	Privatisation at preliminary stage
Cameroon Telecommunications Corporation (Camtel)	Telecoms	n/a	100	Successful bidder selected but negotiations at a standstill
Camtel-Mobile	Telecoms	n/a	100	Privatisation completed
Société camerounaise d'assurance et de réassurance (Socar)	Insurance	800	56	Privatisation completed
Caisse nationale de réassurance (CNR)	Insurance	1.000	100	In liquidation
Banque internationale du Cameroun pour l'épargne et le crédit (BICEC)	Bank	3.000	100	Privatisation completed

[a] June 1998. [b] %.

Source: Ministry of Economy and Finance.

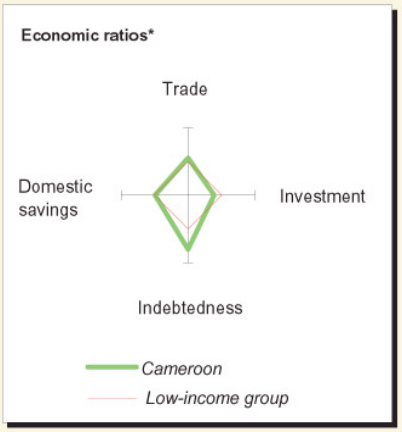
Exhibit 7. Cameroon at a Glance[13]

POVERTY and SOCIAL	Cameroon	Sub-Saharan Africa	Low-income
2000			
Population, mid-year *(millions)*	15.1	659	2,459
GNI per capita *(Atlas method, US$)*	570	480	420
GNI *(Atlas method, US$ billions)*	8.6	313	1,030
Average annual growth, 1994-00			
Population *(%)*	2.7	2.6	1.9
Labor force *(%)*	2.8	2.6	2.4
Most recent estimate (latest year available, 1994-00)			
Poverty *(% of population below national poverty line)*	..	..	..
Urban population *(% of total population)*	49	34	32
Life expectancy at birth *(years)*	51	47	59
Infant mortality *(per 1,000 live births)*	77	92	77
Child malnutrition *(% of children under 5)*	22	..	..
Access to an improved water source *(% of population)*	62	55	76
Illiteracy *(% of population age 15+)*	24	38	38
Gross primary enrollment *(% of school-age population)*	85	78	96
Male	..	85	102
Female	..	71	86

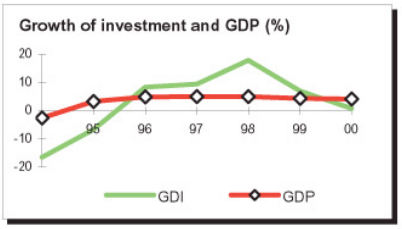


KEY ECONOMIC RATIOS and LONG-TERM TRENDS	1980	1990	1999	2000
GDP *(US$ billions)*	6.7	11.2	9.2	8.9
Gross domestic investment/GDP	21.0	17.8	18.7	16.4
Exports of goods and services/GDP	28.2	20.2	24.4	30.7
Gross domestic savings/GDP	21.7	20.7	18.4	20.3
Gross national savings/GDP	5.1	16.1	14.6	14.7
Current account balance/GDP	-5.1	-1.8	-4.1	-1.7
Interest payments/GDP	1.8	1.8	..	..
Total debt/GDP	37.3	46.3	102.8	112.1
Total debt service/exports	14.6	22.5	45.2	20.5
Present value of debt/GDP	..	..	71.9	..
Present value of debt/exports	..	..	292.6	..

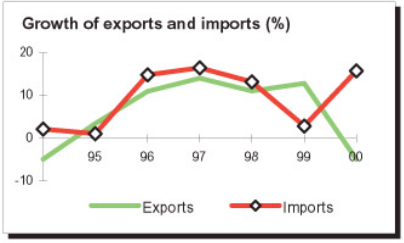
	1980-90	1990-00	1999	2000	2000-04
(average annual growth)					
GDP	3.4	1.7	4.4	4.2	5.4
GDP per capita	0.6	-1.1	1.6	3.0	2.5
Exports of goods and services	5.9	3.2	12.9	-4.9	-2.2



STRUCTURE of the ECONOMY	1980	1990	1999	2000
(% of GDP)				
Agriculture	31.3	24.6	43.5	43.8
Industry	25.6	29.5	20.2	20.3
Manufacturing	9.6	14.5	10.9	10.9
Services	43.1	46.0	36.2	35.9
Private consumption	68.6	66.6	71.6	69.5
General government consumption	9.7	12.8	10.0	10.2
Imports of goods and services	27.4	17.3	24.7	26.8



	1980-90	1990-00	1999	2000
(average annual growth)				
Agriculture	2.2	5.6	6.8	6.8
Industry	5.9	-0.8	6.3	7.7
Manufacturing	5.0	1.4	9.4	11.3
Services	-0.5	0.2	-0.2	2.6
Private consumption	3.5	2.9	-1.2	12.9
General government consumption	6.8	0.7	10.6	7.3
Gross domestic investment	-2.6	0.9	7.0	0.9
Imports of goods and services	3.6	5.1	2.9	15.8



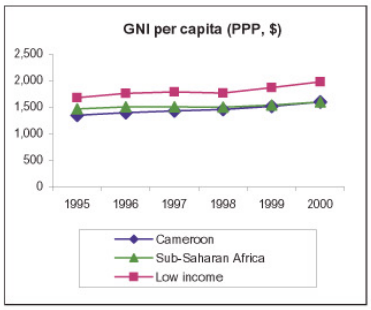
Note: 2000 data are preliminary estimates.

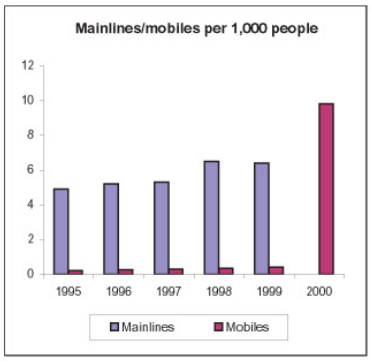
* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

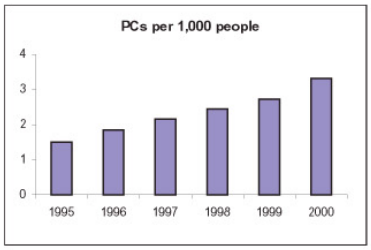
[13] Source: The World Bank.

Exhibit 8. Cameroon's ICT Infrastructure[14]

Country background information	Cameroon		Sub-Saharan Africa	Low income
	1995	2000	2000	2000
Population, mid year (millions)	13.3	14.9	658.9	2,459.8
Poverty (% of population below $1 a day)	..	*33.4*	..	..
Adult literacy rate (% ages 15 and over)	69.6	75.8	61.6	62.4
Urban population (% of total population)	44.7	48.9	34.4	31.9
GNI per capita (Atlas method, $)	660	580	470	410
GNI per capita (PPP, $)	1,350	1,600	1,600	1,980
GDP growth (1990-95 and 1995-2000, %)	-2.2	4.8	3.0	3.5
Scientists and engineers in R&D (per mill. people)	..	..	..	..
Expenditures for R&D (% of GNI)	..	..	..	*0.5*
ICT infrastructure & access				
	1995	2000	2000	2000
Telephone mainlines				
Per 1,000 people	5	*6*	14	23
In largest city (per 1,000 people)	30	*38*	*33*	*117*
Waiting list (thousands)	42	*50*	*1,295*	*8,880*
Waiting time (years)	..	6.2	4.4	4.4
Revenue per line ($)	1,179	*729*	1,266	*199*
Cost of local call ($ per 3 minutes)	0.08	0.05	0.06	0.03
Mobile phones (per 1,000 people)	0	10	17	5
International telecommunications				
Outgoing traffic (minutes per subscriber)	364	*293*	241	155
Cost of call to U.S. ($ per 3 minutes)	..	*3.39*	..	..
Daily newspapers (per 1,000 people)	6	*7*	*12*	..
Radios (per 1,000 people)	150	*163*	*202*	*157*
Television sets (per 1,000 people)	24	34	59	91
Computers & the Internet				
	1995	2000	2000	2000
Personal computers				
Per 1,000 people	1.5	3.3	9.2	5.1
Installed in education (thousands)	..	..	..	..
Networked PCs (%)	..	..	..	..
Internet				
Users (thousands)	..	40	3,695	9,337
Monthly access charges by service provider				
Service provider charge ($)	..	..	..	..
Telephone call charge ($)	..	..	..	..
ICT expenditures				
	1995	2000	2000	2000
Total ICT ($, millions)	..	..	..	..
ICT as % of GDP	..	..	..	..
ICT per capita ($)	..	..	..	..
ICT business & government environment				
(ratings from 1 to 7; 7 is highest/best)	1995	2000	2000	2000
Internet speed and access	..	..	..	..
Internet effects on business	..	..	..	..
Highly-skilled IT job market	..	..	..	..
Competition in ISPs	..	..	..	..
Government online services availability	..	..	..	..
Laws relating to ICT use	..	..	..	..
Secure servers	..	..	552	279







Notes: Figures in italics refer to an earlier year.

Sources: Country background information, UNESCO and World Bank; ICT infrastructure and access, ITU and UNESCO; Computers and the Internet, ITU and WITSA; ICT expenditures, WITSA; ICT business & government environment, World Economic Forum's *Global Competitiveness Report 2001-2002* (ratings) and Netcraft (secure servers). See Definitions and Sources for more complete information.

Development Data Group, World Bank

[14] Source: The World Bank.