

Case Study: Spatial Innovision, Jamaica

Spatial Innovision (Spatial) is a digital geospatial and land mapping company based in Kingston, Jamaica. Silburn Clarke, an engineer, founded the company in 1998, after years of experience working in the Surveys, Lands and Titles Department of the Jamaican government and a stint in the private IT industry with Fujitsu Caribbean. Spatial offers three services:

1. Resells geospatial and land mapping technology (GPS and GIS systems) in the Caribbean.
2. Designs and builds land titling, geospatial, land mapping, and surveying infrastructure.
3. Interprets and analyses complex spatial data for clients.

Government agencies in the Caribbean are the firm's primary clients. Agencies purchase Spatial's products and services to inform land title location and ownership, tax collection, service delivery, and disaster relief. The firm's total revenue for 2009 was US \$ 3.7 million. After several years of growth, Spatial Innovision faced a strategic challenge: the firm could rely on its first-mover advantage as the preferred reseller of GPS equipment, or pursue a "value-added" model by offering sophisticated consulting services. To choose this option Clarke would need to invest heavily in his employees and create a highly competitive and expert workforce.

Business Challenge: Rely on First-Mover Advantage or Offer Sophisticated Service

Spatial Innovision was founded in response to a government need for land mapping services. Land mapping systems can make many government tasks more effective. For example, governments can collect taxes more equitably and efficiently with accurately mapped land. Governments also require organized information on population density, topography and demographics, to plan public services such as schools, hospitals, and fire stations. Spatial created its offerings to meet these types of needs.

Spatial's products and services revolve around two key technologies: GPS and GIS. The Global Positioning System (GPS) is a worldwide radio-navigation system generated from 24 satellites and a series of ground towers. The system creates reference points from which any position on earth can be calculated with the use of a GPS device. Spatial is a reseller of GPS devices and works exclusively with Trimble, a California-based company that specializes in positioning products. Trimble currently allows Spatial to resell its products at up to a 35% margin.

Geographic Information Systems (GIS) integrate all land mapping and positioning products including hardware, software, and data. GIS allows users to interpret trends using land data, and perform complicated analysis such as scenario forecasting, that relies on such data. GIS is therefore necessary to process and present geographically referenced information. Spatial Innovision is a regional distributor for the GIS company Environmental Systems Research Institute (ESRI). Overall historically, reselling of both GPS and GIS accounted for 90% of the firm's profits; the remaining 10% came from consulting services.

Mr. Clarke was the first to notice and fill the land mapping space in Jamaica. His initial success was based primarily on three factors: 1) an arrangement to resell a particular model of GPS devices and GIS products; 2) Mr. Clarke's personal relationships within key government agencies; 3) the smallness of Caribbean markets from the perspective of international industry leaders. Though very successful with this model, it presented several problems. First, Mr. Clarke's arrangement with Trimble and ESRI may erode. Supplying companies can look for other retailers creating a price war that bids down profits. Second, the contacts he maintains in government may leave office or be forced to look for other options. Third, the market may change quickly and radically.

For example, international companies may decide the Caribbean market is too valuable to overlook; and there is a threat from remote Internet systems like Google Maps that could offer some similar services for free. Finally, Mr. Clarke needed a way to expand his market. In the Caribbean, there is a lack of awareness about geo-spatial analysis, and how it may benefit an industry. Few Caribbean industries have applied geo-spatial analysis to their businesses. This is in spite of the fact that similar industries in other regions have used it to great benefit. Examples of potential clients are utility companies, environmental managers, construction firms, insurance companies, economic development agencies, and planning and zoning bodies. While he is a good salesman, Clarke wanted to expand more quickly.

Realizing these challenges Clarke faced a choice of whether to continue to rely on a reseller strategy of being the first-mover in the market, or to look for something that would strengthen his competitive advantage, by adding a more sophisticated level of service through consulting.

Alternatives

Option 1: Reseller model. Many firms base their strategy on an arrangement to resell a particular product or service in a local market. Though Mr. Clarke's agreements were not formalized, he enjoyed the role of exclusive distributor of Trimble GPS and ESRI products on the one hand, and a Jamaican government that preferred these products, on the other. This, in essence, was the strategy used to build the firm: buy from Trimble and ESRI, and sell to Jamaica. A reseller model is based on very low overhead, minimal staff and just-in-time inventory. The first to occupy this space, Mr. Clarke had successfully placed himself in a near-monopoly position as the preferred distributor between these parties, creating a lucrative role for Spatial. To fully maximize this position Clarke would need to significantly streamline the company.

Option 2: Focus on consulting services. Spatial was beginning to understand client needs in a deeper way through its relationships with both suppliers and the Jamaican government, and having supplied and managed much of the industry infrastructure. In Jamaica foreigners are often employed for sophisticated land mapping consultant services; but Clarke felt that his firm could offer competitive consulting by building upon both sales and infrastructure work. To offer these services he would need to upgrade his workforce through rigorous training and education. By adopting this model, Clarke would be able to offer a level of service to customers that would be very difficult to imitate.

Action Taken

In spite of his commendable first-mover advantage based on relationships with Trimble, ESRI, and the Jamaican government, he realized that it might not last. To remain competitive Clarke made a strategic decision: he would focus on consulting services by strengthen the value of his workers and ensuring they were the very best in the industry. Spatial now does this through training its workforce, and retaining talent.

1. Train workforce. Maintaining a technical edge means that Spatial invests strategically in industry training and education opportunities for its staff. Mr. Clarke pays for short courses at local training institutes in areas such as communications and project management. He also pays for technical training using the international resources of Webinars and industry conferences. Additionally, Clarke offers interest-free loans for local study and bonded scholarships for international study. Mr. Clarke also personally models an aggressive learning approach: in addition to his Bachelor's degree he also has three Master's degrees including an MBA, and is currently pursuing his PhD part-time. A highly skilled technical team is critical to Spatial's overall competitive advantage. This advantage lies in two areas. One, it maintains industry insight and technical expertise that enable the firm to craft specific

and targeted solutions for clients. Two, it keeps a pioneer's grasp on the emerging trends, new products, and innovative technologies with which it can better target the market.

2. Retain talent. Once trained Clarke's workforce must be retained to leverage their expertise for the firm. To keep them, Clarke provides various incentives. Spatial workers enjoy sales incentives and performance-based pay centered on acquiring new business. In this way Clarke keeps his skilled staff at the front lines of business development. Staff are empowered to be "segment owners" and responsible for particular market areas. The strategy allows Spatial to increase its revenue base, as all employees become potential sales representatives for the company and have the chance to earn commissions on top of regular salaries. The system is designed to transform the culture at Spatial by helping employees think of themselves as wealth creators, rather than merely wage earners. Mr. Clarke explains that this "transforms the mental models of Spatial personnel".

Results

To date, the results have meant profitability, and the emergence of an important firm for Jamaica. As mentioned the firm's total projected revenue for 2009 was US \$ 3.7 million largely grown from revenues earned from successful contracts won from highly competitive fields of international bidders for land titling and geospatial services in Jamaica and Trinidad. In 2010 expected revenue tops US \$ 4.8 million. These totals are in contrast to US \$ 1 million in revenue for 2006, representing nearly a five-fold increase. As CEO Mr. Clarke has received several awards for his entrepreneurial vision and contributions to Jamaica. His firm also fills a critical role for future economic development in Jamaica, by offering services to make future business and public sector ventures more effective.

The COW-F Framework provides a means of assessing the sustainable growth potential of a firm.¹ Sustainable growth can only be achieved if a firm can satisfy all four of its stakeholders: customers, owners, workers, and future generations. The following table offers a summary of the value created for these four different stakeholder groups by Spatial Innovation.

Spatial Innovation and the COW-F Model

Stakeholder Community	Current Value Offering
Customers	<ul style="list-style-type: none"> • In addition to product sales Spatial offers full training and technical support, something missing from other providers. • Spatial has captured the majority of the existing market in Caribbean Geospatial needs. • By building National Spatial Data Infrastructure in Jamaica, Spatial can leverage proprietary know-how in other nations.
Owners	<ul style="list-style-type: none"> • As a firm, Spatial is clearly profitable, and viable plans are in place for growth, however, ownership is exclusive and there is no successor in place.
Workers	<ul style="list-style-type: none"> • Workers are well paid; enjoy benefits package and sales incentives. • Technical training and upgrading of skills is a regular part of employee experience. • Education opportunities are readily available and additional education is encouraged. • Coaching and exercises for practical application of skills are part of the firm's culture. • Management models professional growth.
Future Generations	<ul style="list-style-type: none"> • The owner is actively involved in helping Jamaica become a more technology and knowledge based economy. • Spatial donates equipment and human resources to various governments for post-disaster relief work. • Company offers the largest training on GIS technology in Jamaica. • Provides summer employment programs to help others gain work skills and experience, and supports academic and business award programs.

¹ The COW-F Model was developed by Michael Fairbanks. It first appeared in *The Natural Advantage of Nations*, Hargroves and Smith, 2005.