



The Duke MBA Global Consulting Practicum 2010 Project Summary

Project Title: Petters Research Institute: Capacity Building in Technology
Dangriga, Belize

Client Information:

- Petters Research Institute; <http://www.pribelize.org/>
- Dr. Arlie Petters, Founder

Period of Performance: December 2009 - April 2010

Duke MBA Team:

- Sai Balasubramanian (Fuqua 2011)
- Faatin Chaudhury (Fuqua 2011)
- Marcy Guttman (Fuqua 2011)
- Lawrence Pang (Fuqua 2011)
- Sandeep Pasrija (Fuqua 2011)
- Devanjan Sinha (Fuqua 2011)

Instructor: Arlie Petters and Paul Bloom / Pranab Majumder / Matt Nash

Partner Description:

Petters Research Institute (PRI) is a non-profit, private, politically-neutral institute in Belize that aims to create an interdisciplinary center of excellence in the application, theory, and pedagogy of STEM fields (Science, Technology, Engineering, and Mathematics). Further, PRI actively promotes outreach programs to scholars and professionals outside science, and to the community at large, to encourage collaboration and mutual understanding for the betterment of the Belizean people.

Problem Statement:

PRI believes that the Belizean economy needs to diversify away from tourism and agriculture. The nature of these industries in Belize does not require education past the grade school level, making them ineffectual in developing human capital in Belize. Given that 62% of the population is below the age of 24, providing quality education and building skills among the population is crucial to the development of the economy. PRI aspires to address this need by building an organization that will train Belizean youth to assemble and repair desktop computers, and will meet the computer needs of various institutions in the country such as schools, hospitals and the military.

Objectives:

- Explore whether a service model can drive sustainability for a computer assembly company in Dangriga, Belize.
- Examine the viability of such a business from the demand and supply side, assess the market need, determine the types of services, and understand the capacity of potential employees.
- Attempt to support PRI's theory of change, which states that if PRI can introduce a large number of computers to the Belizean population and then create a service model whereby young people can learn a new skill set and find employment, it will improve job opportunities and income levels in Belize.

Approach / Methodology:

Our research involved two phases. Prior to the trip, we conducted background research into the economic, political, and cultural environment of Belize. Additionally, we spoke with a number of IT professionals who had previous experience working in



Belize, including a former owner of a computer services company in Dangriga, and a past consultant to PRI. We further explored and made contacts with other organizations engaged in similar technology projects in developing nations.

In addition, a major part of our pre-departure research involved investigating the operations of computer repair businesses in the United States to better understand how they operate and achieve their margins. Through this research, we were able to develop a business model to use as a foundation for our study. While this was instructive, we realized that our learning was not transferable to Belize, and the information we gathered was trumped by more country specific findings.

The second phase of this project was our field research in Belize, using Dangriga as a case study. The nature of this research was qualitative, based on a series of focus groups and interviews targeting three main groups of stakeholders in Belize: customers, competition, and the potential talent pool. Through this research, we were able to glean important information from which we have drawn some meaningful insights and have made a number of recommendations.

Our final deliverables included a financial model of the maintenance and repair services company; a narrative report with recommendations detailed, and an implementation plan.

Recommendations:

- Pursue the largest market segments – Educational institutions, government ministries and the tourism industry
- Vocational learning – provide certifications, e-Learning
- Partnerships to create market demand and build capacity: InterVol and Peacework, IBM Corporate Service Corps, joint ventures with companies and universities.
- Microfinance: vital to providing necessary financial access to the base of the economic pyramid; in order to generate demand for training as well as computer related services, microfinance may prove to be a critical catalyst.