

Social Enterprise – Market Solutions for Inclusive Economies

Yale University - African Studies 305/306

January – December 2020

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I. Executive Summary

Solicitation for Participation

Each calendar year, 15 Yale undergraduates embark on a practicum-based class that combines intensive case analysis with 10 weeks of summer experience working directly with mission-driven organizations on the African continent addressing the delivery of goods or services to Base the Pyramid (BoP) and aspiring populations. **As the class enters its 8th year, we seek the participation of up to 5 hosts for the summer of 2020.**

Hosts **do not** have a financial obligation to support student travel or living expenses but are instead selected on their willingness and ability to create a positive, project-based crucible for students to get direct field experience in the challenges and opportunities facing such organizations. Student expenses are funded from grants independently managed through Yale University.

Hosts and their suggested projects for 2020 will have been identified before November 30, 2019. Classes will begin the following January and by February students will be assigned to their respective hosts, providing ample opportunity to further refine project deliverables and plan summer travel dates. The remainder of this document seeks to provide greater detail to **prospective hosts** of past projects and host participants, but readers are encouraged to reach out directly to Professor Hopkins for more information.

II. Class Description

Harnessing the power of markets in the fight against poverty has been an area of much study and experimentation over the past 40 years. Increasingly, business innovators are using market-based practices to bring sustainable social benefits to locally impoverished regions of the world and potentially provide a financial return to investors. Commensurately, many socially-oriented and innovation-minded investment groups are looking for these types of investments – bringing additional capital to this growing marketplace. Philanthropic organizations and corporations also seek development of a more unified system of metrics to measure the impact of grants, program related investments or base of the pyramid investments. Through required readings and case study examples, this class explores the increasing importance of enterprise solutions as a means of fostering local empowerment to establish the building blocks of regional economic development.

Focusing on the African continent, this seminar class uses a case-based approach to promote active class participation. Discussions explore the many financial, political and cultural challenges faced by socially motivated organizations, their sponsors and collaborators. Over the summer between terms, students work in small teams with one of several host organizations on the continent. Introductory work with the host organizations begin in January and each student team of three will be spend 8-10 weeks of their summer completing field research with their host organizations. Funding for these trips will be provided by grants from the MacMillan Center and from other travel grants regularly available to Yale students.

Approximate Schedule for Students

Part 1 (January – April)

Structured as a case-based seminar, selected sophomores at Yale College will meet weekly as a class to discuss and explore the many commercial opportunities and challenges faced by socially entrepreneurial organizations and their sponsors in each of their unique circumstances.

Part 2 (10 weeks - Summer)

Student team members will travel in their individual groups (3 students per group) to a selected research “host” on the Africa continent which is directly involved in the promotion and development of businesses (profit or non-profit) whose mission prioritizes social benefit along with financial sustainability.

Part 3 (August - December)

Students will use class time to “deconstruct” their summer experience and contrast this to their earlier readings and pre-summer expectations, complete their research and finalize deliverables.

Class Deliverables (for grading)

1. A completed research/data analysis paper which meets the deliverables established by host organization/student teams established in the first term;

2. A “case study” featuring the specific aspect or challenge addressed for the host organization;
3. A “teaching note” to accompany the case detailing the importance of the case in relationship to learnings from the first term of class and the broader field of mission-driven enterprises.

A detailed syllabus for the class is provided in Appendix C.

III. Expectations for/from Project Hosts

Students will be on a graded assignment to complete detailed case studies of participating organizations and are not consultants to the organizations themselves.

Host Project

Prospective hosts are encouraged to develop (along with Professor Hopkins) specific deliverables for students to complete that will advance the mission of the organization. While there is no “typical” project, characteristics of previous projects that lead to success include research, data collection/analysis, interviews (often customer focused) and market studies. Host participants can expect to receive a team of three highly motivated students deeply interested in the field of social enterprise. However, as the average age of student is approximately 20 years, hosts should not be expecting trained consultants or immerse students in unstructured problem analysis. Students are best deployed when they have concrete products to deliver in a timely fashion with clear guidelines on execution. Essentially, the host can pick up approximately 1000 hours (3 students, 10 weeks, 35 hours per week) of productivity from some very smart, energetic talent. The challenge is to develop the scope and method to use these hours effectively. Professor Hopkins is a resource to help craft projects and will candidly share his views on success from the past 7 years. **For an example, please see Appendix D.**

Student Case Study

Though the host project is an important element of the summer experience, the broader goal is to give these students an opportunity to witness firsthand the complexity, opportunity and challenges of a working social enterprise.

Students will be trained in case study development and should be expected to dedicate some of their time learning about the organization, utilizing unstructured observation time (just collecting their own thoughts and processing the new information that they see and learn about) and building an environment of “trust” through familiarity between themselves and the host organization. Also, during this time, the students may visit the surrounding area – filming set up shots, and more importantly, becoming grounded in the size and complexity of the environment. Students will spend independent time to develop a “story-board” and interview guide based on

everything they have learned. Finally, they (and their case) will benefit from scripted interviews with key members of management to get the organizational story straight and provide context for the written part of the case. To the extent customers can be interviewed to understand the importance of the enterprise to the community – the more the better.

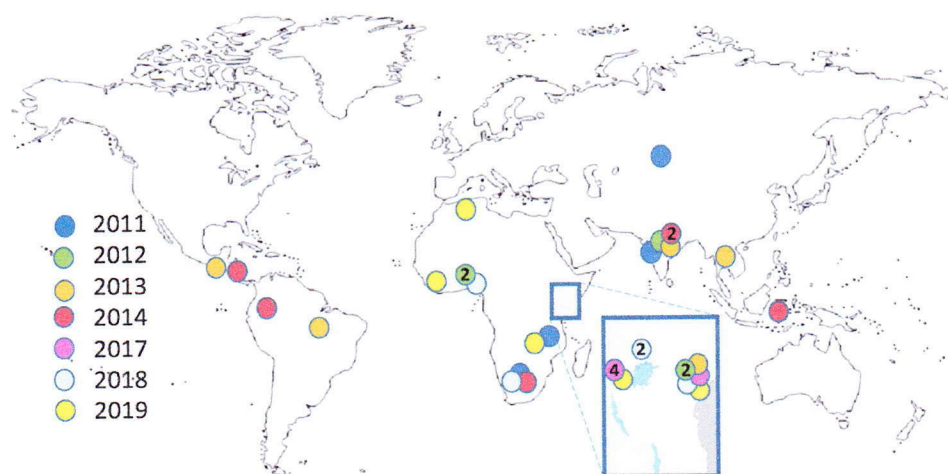
Students will not require excessive handholding by the host organization, but should be permitted to try and schedule meetings, interviews or site visits as will be mutually convenient. Nevertheless, the organization should have a dedicated point person to assist the students and provide translation services should it become necessary. To the extent students can be introduced into the community by staying locally with or near families involved with the host organization, the learning experience will only be richer for all.

Please see Appendix A for a completed case study and teaching note example. The M-Peso case is the written version of an online case format that we use for the class. The M-Peso case won the 2014 Next 4 Billion case competition (administered by the Ross School of Business at the University of Michigan). **Additional online case examples are presented in Appendix B with a brief summary and a link to the online version.**

Student teams will finish the case preparation work once they return to the classroom in the fall, but host participants should expect some contact from the Yale team members during the term to answer follow-up questions.

There can be no guarantee that any case will be published by Yale until the final drafts completed and reviewed by both the host organization and the Yale case writing committee. **Hosts are expected to have final say over any content included in the case write-up and may work with students to edit or exclude elements of the case at their sole discretion.** Once sign-off from the host is received, Yale will determine if/how the case is published and distributed.

Map of Previous Host Cases (see Appendix E for complete listing)

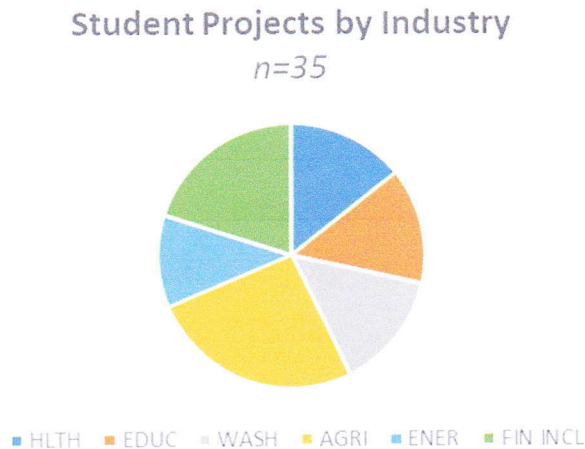


Market Solutions: 105 Students / 33 Hosts / 18 Countries / 7 Years

For more information, please visit <https://se-hopkins.yale.edu> or contact Professor Hopkins by email: bo.hopkins@yale.edu

The summer of 2020 will be the eighth year of the class and summer projects. Since 2017 the class has focused exclusively on enterprises working on/for communities within the African continent. The map above illustrates where students have traveled in previous years. More information on hosts and specific projects can be found on the class website <https://se-hopkins.yale.edu> and **Appendix E lists each project host by geographic region.**

Over the past 7 years, hosts have been reasonably equally divided across six core areas of expertise or operation: healthcare, education, water & sanitation, agri-business, energy and financial inclusion.



Student Funding

The host is not expected to absorb any significant expense over the summer. **The students (through a previously secured grant) will be responsible for all expenses associated with international travel and daily living costs.**

Nevertheless, the host may incur some soft expenses in project development time, broad supervisory support and – in some cases – local transportation or translation expense to assist students as they learn their way around.

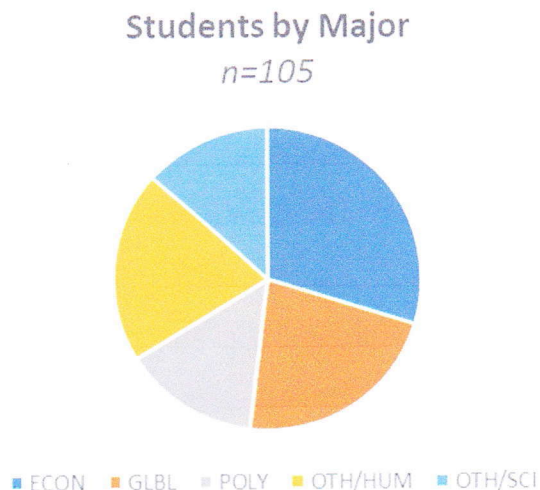
Hosts from previous years are also encouraged to submit new or follow-on project proposals.

IV. Student Profiles

Each January during the first weeks of spring term students apply for this year-long, seminar style class. Based on a written application demonstrating interest and previous experience, 15 students are selected to participate. Most often students will be in the second half of their

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sophomore year at Yale, though periodically a Junior or accomplished freshman may be admitted. Generally, students are drawn from across the spectrum of majors; summarized in the following pie chart.



Economics, Political Science and Global Affairs account for about 65% (excluding second majors). African Studies usually has representation by one or two each year, and not all students are declared when they enter the class. African Studies is frequently cited as a second major. Demographically, students are representative of the broader Yale campus with participants coming from an increasingly international cohort. Whenever possible, we encourage students of African descent or origin to apply for the class. On average about 20-25% of any class may be comprised of students with deep ties to Africa. Asian, South-Asian and North American students typically represent about 60% of the class with students from Europe, MENA and South America making up the balance.

Student Alumni

While the data is inexact and subject to change as more students complete the class, every year one or two graduating students go on to work in the (broadly defined) field of social enterprise. In some cases, students may get full time employment with a project or host an organization they encountered from cases and readings in class. Examples include MicroEnsure, TechnoServe, Gulu Agricultural Development Co, Enveritas, and Selco. Often students will follow up the class with an internship with an organization in a related field of impact investing, philanthropies or foundations. **Please see the website for examples of student alumni and their careers.**

In all cases, it is a desired outcome of the class to introduce young creative minds to the relevance and excitement of global organizations who prize the delivery of goods and services to populations that may be otherwise overlooked in traditional market settings.

V. Host Application Process

From the experience of Professor Hopkins, there are three characteristic successful host/student

1. **Scale:** Organizations are large enough to be able to devote at least some staff time to integrate students. Furthermore, they should have enough confidence in the stability of ongoing operations to allow for the time lag between project scoping (September/October) and project execution (the following May-July) – see calendar below;
2. **Scoping:** Developing a project for three Yale undergrads that can span 10 weeks of summer is challenging. Well scoped projects generally have a concrete deliverable with a clear path to execution. Examples may be customer surveys, market studies, monitoring/evaluating outputs, etc. Some hosts have preferred to assign students directly into departments (e.g. customer care) supporting day-to-day operations instead of creating a unique project. **A defined project scope is not a pre-requisite to the application process but should be developed before students arrive for their summer experience.** Professor Hopkins is always available to work with prospective hosts to develop a well-designed project.
3. **Collaboration:** Participant hosts will be identified before class begins in January. As students do not arrive until summer, time during the term can be reserved for onboarding students (remotely), assigning pre-departure reading or research and other team and content building exercises that may allow students to ramp up much faster than coming in cold over the summer. Professor Hopkins strongly encourages pre-departure collaboration and, depending on the workload requested, can free up time in the curriculum (i.e. homework) to assure students they have time to complete such requests.

A scoping proposal from the summer of 2018 is presented as example in Appendix E.

Proposed Timeline

June/July 2019: Pool of prospective hosts identified and receive information (this package) and begin to evaluate the opportunity.

August/September 2019: Prospective hosts begin speaking with Professor Hopkins to affirm interest, discuss preliminary project ideas and address questions or concerns

October/November 2019: Hosts selections are finalized. In early December, Mr. Hopkins will begin pre-marketing the 2020 class to prospective students and will seek to attract candidates that demonstrate specific interest in one or more of the 5 projects/host participants on offer.

January/February 2020: Students are formally accepted into the class (appx Jan 20) and select into or are assigned to a specific host by early to mid-February. Student teams are formed, summer budgets developed and grant applications begin for grant funding.

March/April 2020: Students, in their teams, are available to collaborate with host representatives to develop a rapport, establish/confirm intended project deliverables (Professor Hopkins will be engaged with each team) and begin travel planning.

April/May 2020: Students receive funding awards and begin to book airline tickets and accommodations. Visas applications submitted, inoculations scheduled, and necessary Yale travel notifications/approvals are completed.

May thru August 2020: Window in which students/hosts scheduled up to 10 weeks for the summer experience. **Students will travel together as a team, not sequentially.**

If you have requested or received this package and have interest to learn more about becoming a project host, please contact Professor Hopkins directly to log your interest. Early dialogue will center around your organization, the type of work it does, your location (not all African countries are eligible for student travel) and your ability to absorb students into operations.

Please contact Professor Hopkins directly at:

Bo.hopkins@yale.edu

Mobile: 914-953-6222

Appendix A: Completed Case Example w/Teaching Note

Our class is designed to provide students with distinct learning opportunities in each of three segments in which it is presented:

Term One – exploration of concepts and case examples of enterprises which seek to provide goods or services to underserved populations on the African continent;

Summer – direct practical experience working with organizations that embody the concepts addressed in term one;

Term Two –by developing the online case study, students (in their teams), demonstrate additional comprehension of nuances, complexities and overarching challenges these unique organizations face as they strive to achieve the intended mission.

Term Two is centered around the narrative exercise of developing a “case study” describing the host organization, its core mission and the principal customers and/or beneficiaries of its operations. Furthermore, students are also required to develop a “teaching note” which is meant to allow students to show how their case relates specifically to one or more of the broader educational concepts from **Term One**. Case studies sometimes include specifics of the projects students work on over the **Summer**, other times the project serves as a general pathway from which students become conversant about their host partner.

The attached case, M-Peso, illustrates student work from 2014 which was released for publication after it achieved first-place in the Next Billion case competition. The case 17-page case is followed by the accompanying 5-page teaching note. Not all cases are published or entered into competitions, of course, but this example does represent the intentions of the class as a whole.

First Place

case 1-429-424
April 3, 2015

MPESO: Democratizing Financial Services in Nicaragua

Introduction

As Haroldo Montealegre waited at the last intersection on his way to the office, multiple buses, each with the words “Solo Tarjeta” (“Card Only”) visible in the front window, crossed in front of him, transporting his fellow Managuan residents. Montealegre continued toward his office, smiling as he thought about how much the bus system in Nicaragua had changed in the past year. He remembered the sleepless nights he spent wondering how long it would take for the bus cooperatives to accept his proposal to automate the bus fare collection system while his company bled funds. Institutional change is never easy, especially in a developing economy like Nicaragua, but Montealegre now slept easier knowing that MPESO was covering costs and witnessing steady growth in its user base and daily transaction numbers. Just three years ago, Montealegre never would have thought that his vision for bringing mobile money to Nicaragua would rely on a partnership involving most buses in Managua, nor could he have imagined how crucial this partnership would be. Looking back now, he realized he could not have reached a critical mass of over 700,000 users in any other way — without the bus partnership, his company surely would have failed.

Montealegre was the founder and CEO of MPESO, a mobile money social enterprise based in Managua, the capital and largest city in the Central American nation of Nicaragua. In Nicaragua, a majority of the population lacked access to traditional banking services. Through MPESO, Montealegre saw an opportunity to replicate in Nicaragua the success that mobile money had experienced in Africa, both as a social innovation to improve the lives of his fellow citizens and a vehicle to earn financial returns in a space where he would operate as a first mover.

In Montealegre’s view, physical money posed several inherent problems, including sanitary and personal safety concerns. It also placed a high burden on poor individuals to keep meticulous track of the little money they did have. MPESO thus aimed to revolutionize life at the Base of the Pyramid (BoP) — a diverse group encompassing 3 billion people spending less than \$3 a day, and up to 1.5 billion additional people spending up to three



Published by *GloboLens*, a division of the William Davidson Institute (WDI) at the University of Michigan.

©2015 Rodrigo Cuestas and Julian Chernyk. This case was written by Yale University students Rodrigo Cuestas and Julian Chernyk to be the basis for class discussion rather than to illustrate either the effective or ineffective handling of an administrative situation.

times that much — by replacing and eventually eliminating cash-based transactions in favor of cashless ones. The long-term goal of the organization was to empower low-income individuals to overcome the constraints associated with limited capital and a lack of financial services.

When Montealegre launched his company in 2011, he did not realize how crucial the partnership with the bus cooperatives would be. As it turned out, no matter how useful MPESO's technology was, nor how much it would improve the lives of the unbanked majority in Nicaragua, people would not adopt mobile money until they had a compelling reason to do so. It was the implementation of a cashless bus fare system requiring an MPESO account that provided the impetus.

By May 2014, MPESO had over 700,000 users, and the company processed over 1 million transactions worth 20 million Nicaraguan córdobas (NIO) or USD 700,000 on a daily basis.¹¹ The company was in the black, but Montealegre knew that for his mission to become a reality, he had to continue to innovate and grow MPESO. Most Nicaraguans used MPESO to pay their bus fares only, despite the fact that the array of services offered by the company was far more extensive. The main dilemma Montealegre faced was where to focus operations in the short term. Should he aim to expand MPESO's array of services for Nicaraguans? Or would it be more worthwhile to focus on expanding the bus fare collection system abroad? The bus fare product was true and tested, and although it was limited in its social impact and profit margin, expanding it into other markets such as the Dominican Republic and Costa Rica would help MPESO grow its geographic footprint.

Mobile Money Background

More than 2.5 billion people in the world lacked a bank account,² yet 6 billion had access to a mobile phone.³ This was largely because banks found it too expensive to open branches and ATMs in poor and rural locations. People at the BoP were often left with only informal networks through which to transfer and store money. These unofficial channels were prone to risk. For example, low-income individuals who saved by stuffing money under a mattress or investing it in livestock were vulnerable to theft or material loss. Mobile money filled this void at the BoP by providing a more secure range of financial services, from simple transfer and savings mechanisms to more complicated products such as business or group loans.

As an example, in sub-Saharan Africa, mobile phone penetration in 2013 stood at 80% for urban households and 63% for rural ones.⁴ In contrast, only 41% of people in developing economies had an account at a formal financial institution in 2012.⁵ Statistics such as these were the driving force behind the emergence of over 100 mobile money deployments in emerging markets as of July 2011 — at least 84 of them had originated in the preceding three years.⁶ Yet few mobile money platforms had managed to reach a sustainable scale. These included GCASH and Smart Money in the Philippines; Wizzit, MTN Mobile Money, and FNB in South Africa; MTN Mobile Money in Uganda; Vodafone M-PESA and Airtel in Tanzania; Celpay Holdings in Zambia; and MTN Mobile Money and Orange Money in Côte d'Ivoire.⁷

M-PESA

Montealegre looked to M-PESA, the industry pioneer, for inspiration and as a model for his operations. Started in 2007 in Kenya by Vodafone and Safaricom — the largest mobile network operators in Kenya and Tanzania — M-PESA ("M" for mobile and "PESA" for money in Swahili) was one of the most successful mobile money platforms. Safaricom originally envisioned the platform as a microcredit repayment service, but changed direction during the pilot stage after monitoring transactions and customer feedback, which indicated customers preferred to use the service for remittances. Rural Kenyans who had moved to urban communities seeking employment began using the service to send money home.⁸

i The córdoba-dollar exchange rate as of May 2014 was NIO 25.81 to USD 1.

When it was launched, M-PESA was structured as an electronic payment and money storage system accessible through mobile phones. It was branded as a simple service — “send money home.” Users were required to register at an authorized M-PESA retail outlet where they were assigned an individual electronic money account managed by Safaricom, which deposited the customer’s money into a pooled account at a regulated bank. This electronic account was accessible through a subscriber identity module (SIM) card application on the mobile phone. Users deposited cash into their accounts for free by exchanging cash for electronic credit at an agent, who was in turn advanced a fee for the exchange. Users were not charged for deposits, only when they did something with their money.⁹

Once they had money in their accounts, users could send it to other M-PESA users, as well as to non-registered users, through their phones. They could additionally use M-PESA to pay bills, receive money transfers, and purchase airtime for their cell phones. Safaricom ensured liquidity and managed individual transactions through master agents who bought and sold electronic value to individual agents through connections with local banks. Both retail agents and master agents received commissions on transactions.¹⁰

The M-PESA interface allowed users to easily launch the service from their phone’s menu, which prompted the user to provide all the necessary information, one piece at a time, based on the type of transaction requested. All transactions were recorded using short messaging service (SMS). The messages were encrypted using the security keys on the customer’s SIM card. To ensure customer trust, Safaricom also required agents to record all transactions in a log book. For each transaction, the agent entered the MPESA balance, the date, agent ID, transaction ID, transaction type (customer deposit or withdrawal, agent cash rebalancing), value, customer phone number, customer name, and the customer’s national ID number. Most of the information was copied from the agent’s confirming SMS. Customers were then asked to sign the log for each transaction. As of 2009, each customer paid a KSh 25 (USD 0.30) fee to Safaricom on small transactions.¹¹

Critical Success Factors

Agent Network

The agents of a mobile money operator conduct the cashing in and cashing out functions of the company, enabling users to turn cash into electronic currency and back to cash again. The face of the company, agents are often business owners with storefronts in convenient locations. Many mobile money providers focus on building their agent networks as fast as possible to increase convenience for users. Still, providers have to strike a balance — if they enlist too few agents, then users get frustrated by a lack of access points to the system; if there are too many, individual agents do not generate enough business to cover their costs. Agents in turn stop offering mobile money services, upsetting users further.¹²

Agent quality is extremely important for mobile money companies. The best agents maintain liquidity, market both mobile money and the provider well, and educate users. Acquiring and retaining this talent means choosing agents carefully, training them well, and proactively monitoring them. To do this, a mobile money provider has to understand the business from the agent’s perspective, give agents a manageable path to profitability, analyze their day-to-day operations, and help them through points of difficulty.¹³ Ensuring that agents have more to gain from working with the system than from cheating it is of paramount importance — if agents do not see a payoff, then they will not represent the provider well.

Finally, mobile money providers must take into consideration the issue of fraud prevention. After all, once a user loses trust in the system, it is extremely difficult to regain. Many first-time users of mobile money do not understand how to use the technology, so they often simply hand their phones to agents to perform the required task.¹⁴ This situation poses an inherent risk; in fact, 80 of Safaricom’s first 200 agents were fired for taking away user airtime.¹⁵

Nicaragua

Nicaragua had a population of 5.8 million people¹⁶ and was one of seven countries in Central America. Home to one-third of the country's population, Managua was Nicaragua's largest city and capital.¹⁷

In Nicaragua, as of 2009, 42.5% of the country lived below the poverty line.¹⁸ Nicaragua was also one of the most underbanked countries in Central America, with just 14% of the population having access to financial services.¹⁹ In Latin America, 55% of the unbanked said that they did not have enough money to use a formal account and 40% indicated that accounts were too expensive, while 21% said they lacked sufficient documentation to open an account.²⁰

Furthermore, many of the people in Nicaragua who did have a bank account did not use it. While certain employers required accounts to make paycheck deposits, many Nicaraguans withdrew their balances immediately when they were paid. This also led to logistical problems; ATMs regularly ran out of money on paydays.²¹

Although partly a factor of bureaucratic barriers, the high rates of unbanked and underbanked individuals in Nicaragua reflected an inherent societal mistrust in financial services. Nicaraguans were also highly traditional and often reluctant to adopt new technologies.

In stark contrast to Nicaragua's financial sector, the country's cell phone industry was large and growing; cell phone penetration was forecast to grow to more than 80% by 2015, up from 53.9% in 2010.²² It was precisely this type of environment — low bank penetration and high mobile phone usage — that mobile money providers had capitalized on in Africa and other developing regions. The challenge in Nicaragua, then, was to build a network that could support low-income individuals and bring them into the formal financial services world.²³

The Decision Maker: Montealegre

Haroldo Montealegre was born in the U.S. and spent most of his childhood in Managua. He had a naturally inquisitive mind, obtaining his economics degree from Vanderbilt University before going on to receive his JD from Loyola University New Orleans (see **Exhibit 1**).

After graduating from law school in 2008, Montealegre returned home to join a Managua-based law firm focused on renewable energy. Three years into the job, he came across an article in *The Economist* concerning the rapid growth of mobile money in Africa.²⁴ Noting the similarities between the Nicaraguan and African markets, he saw enormous untapped potential for such an operation in Nicaragua — if he did not take advantage of the opportunity, he thought, someone else surely would.²⁵

While he enjoyed his work as an attorney, Montealegre thought that a successful mobile money effort could help many low-income Nicaraguans lift themselves out of poverty. He was determined to generate positive impacts in the lives of people at the BoP who lacked access to financial services, and so, in 2010, armed with not much more than an entrepreneurial mentality and a fierce sense of determination, he went about creating a mobile money platform in Nicaragua. Montealegre called his endeavor MPESO and was excited about its potential, but he also recognized from the start that for the effort to be successful, it would have to reach a critical mass of users, and it would have to do so quickly.²⁶

Exhibit 1

Haroldo Montealegre, founder and CEO of MPESO



Source: Roy Moncada. "Puntos de Venta Para Tarjetas TUC." *La Prensa*, 11 May 2013. Accessed 20 Mar. 2015. <<http://www.laprensa.com.ni/2013/05/11/nacionales/146193-puntos-de-venta-para-trjetas-tuc>>.

MPESO History

First Steps

For Montealegre, mobile money was not just a tremendous business opportunity, but also a way to democratize financial services for Nicaraguans. MPESO would be a game changer — anyone rich or poor, from the city or from the farm — would gain access to financial services by simply making a call or sending a text message, regardless of whether he or she had a bank account.²⁷

In 2010 Montealegre hired a software developer and a compliance advisor from Claro, Nicaragua's largest mobile network operator, to develop the MPESO platform architecture. After a year of work, MPESO's mobile payment platform was launched in July 2011. At the time, Montealegre naively believed that "if you build it, they (the users) will come." His thinking was that Nicaraguans would send money to one another electronically with as much enthusiasm as Kenyans had. But not many did; few Nicaraguans took the time to register as users, and even less were committed to learning how to use the system.²⁸

This was a daunting challenge for Montealegre. He had invested heavily in an expansive agent network and a broad technological infrastructure to make his mobile money platform operational. But MPESO's main product offerings were person-to-person transfers and formal savings instruments that Nicaraguans at the BoP were unfamiliar with. Lacking a compelling product to attract these potential users, agents were not seeing the foot traffic necessary to earn a meaningful commission and were rapidly losing interest. In fact, 200 of Montealegre's first 300 agents abandoned the platform; this in turn choked revenues for MPESO.²⁹

Montealegre and MPESO were caught in the trap that had befallen so many other mobile money operators — unable to cover costs, the company began to flounder. Montealegre considered giving up.³⁰

The Partnerships

Montealegre found that no matter how beneficial MPESO appeared to be in theory, it was difficult to convince people to change their established patterns. His breakthrough came in November 2011 — MPESO's technological infrastructure could be leveraged to create an automated fare collection system in Managua. This would happen via a fare card (*tarjeta* in Spanish) whose funds would be tied to an MPESO account. Called Tarjeta TUC (Transporte Urbano Colectivo or Urban Bus Transport Card), the card was enticing for Managua's bus cooperatives because it would give them more control over bus fare collection. It would also generate the influx of MPESO users Montealegre needed to cover the company's high fixed costs.³¹

The bus system in Managua was run by 28 privately owned bus cooperatives, which operated under a cash only fare system. The cooperatives typically lost approximately 10% of expected revenues, in part, because drivers were pocketing the cash.³² Other attempts to revolutionize mass transit had failed, including a 2007 50-million USD (1.29- billion NIO) Metro Bus project.³³ Nevertheless, Montealegre knew the cooperatives were still looking to move to a cashless system, so in December 2011, he began the difficult process of convincing each of the cooperatives to partner with him.³⁴

The bus cooperatives had three main concerns.³⁵ First, they feared MPESO would be a tool for bus drivers to steal from them. They also wanted to know what types of controls were in place to prevent MPESO from keeping the fares it collected. Finally, the cooperatives had concerns that people would not want to adopt the MPESO technology and that ridership would fall.³⁶

Montealegre alleviated the cooperative's concerns by explaining the transparency of the MPESO system — every transaction would be recorded on MPESO servers. Anyone could view his or her account through MPESO's Web portal, on a bus validator following payment, and after recharging an account. He showed videos of people using similar automated fare collection systems in other countries. The partnership with MPESO would cost the cooperatives a fee of only 8% of fares, versus the 10% or more that they could not account for, so the collaboration made financial sense for both sides. It also made sense for riders. They would see no increase in price. It took over a year of negotiating, but by January 2013, 26 of the 28 cooperatives had signed on.³⁷

Implementation

Implementing a new fare collection system across 835 buses serving over 700,000 passengers daily would not be easy, but after striking the deal with the cooperatives, Montealegre had attracted a critical mass of users — most anyone wanting to ride the bus would have to register with MPESO. Montealegre was eager to begin implementation, but he was also cognizant that the process of registering users, educating them on how to use the system, and ensuring that MPESO's servers could handle the enormous workload had to go off without a hitch (see **Exhibit 2**).³⁸

For the hard infrastructure, servers would be backed up by cross-server redundancy. The soft infrastructure — agent preparedness and ready user assistance — would have to be in place from day one. To ensure this, MPESO sent support teams to verify that agents were both familiar with and adept at performing user recharges. It also stationed 100 people at bus stops and inside buses to educate users on how to use the system. Additionally, MPESO's customer service department was primed to handle a high volume of calls and mitigate user problems in the simplest and most efficient way possible.³⁹

The TUC system was scheduled to launch August 19, 2013. To give riders ample preparation time, MPESO began distributing TUC cards and registering users one month in advance. There was an unexpected problem, however. Everyone wanted to register in the first few days.

Exhibit 2

An MPESO User Boards the Bus by Swiping Her TUC Card



Source: Julian Chernyk

The period from initial user registration through implementation was one of the most stressful times of Montealegre's life, but his perseverance ultimately paid off. A few months after the launch of TUC, Montealegre began to feel that MPESO was truly here to stay. He also made it a priority to inform users about the entire MPESO platform, including the ability for users to store everyday savings in the accounts as well as the ease of making transfers to other accounts. He wanted them to be aware of the many potential uses of their MPESO account.

Operations

MPESO Users

Any Nicaraguan could register for an MPESO account at an agent location using his or her government ID number and cell phone number; the cell phone number became the user's account number. People did not have to make a deposit to register. The system worked similarly to a bank account — the user's account number was registered in MPESO's servers and held a certain balance. Whenever there was a transaction on the account, MPESO credited or debited money to that account from another account. For TUC, when a user rode the bus, the system debited money from that user's account and credited the bus company's account. Similarly, when a user paid an agent to recharge his or her account, money was transferred from the agent's account to the user's account.⁴⁰

The money moving through the accounts was not Nicaraguan córdobas, rather a virtual credit known as "saldo MPESO," or "MPESO credit." When a user gave cash to an agent, he or she received a credit, exchanged at a one-to-one ratio, into his or her account. Similarly, the bus cooperatives received saldo MPESO each time someone rode one of their buses.

The bus cooperatives received a wire transfer from MPESO at the end of each day matching the amount of virtual saldo they earned. When this transfer was complete, both that amount of virtual saldo and real world córdobas were eliminated from MPESO's books, with the virtual saldo to be re-created later as users recharged their accounts the next day.⁴¹

MPESO kept track of these operations in real time, with its team of accountants continuously ensuring that the amount of saldo in the system matched the number of córdobas that MPESO had in its physical account — that is, it ensured that assets always matched liabilities.⁴²

Of course, having the unbanked at the BoP — people with no previous experience with financial services — trust an institution like MPESO to exchange their hard-earned cash for a virtual currency was difficult. Financial exclusion in Nicaragua implied lower levels of financial literacy. Not only did people not have bank accounts, they had little to no idea how financial services worked.⁴³ The fact that MPESO had been able to build trust in the bus fare system represented a massive breakthrough on the path toward Democratizing Financial Services in Nicaragua.

MPESO Agents

MPESO's agents were owners of local businesses, such as pharmacies, Internet cafes, and convenience stores (see **Exhibit 3**). There were over 700 MPESO agents in Managua. Agents continuously received cash from users and moved saldo from their unique agent MPESO accounts.⁴⁴ This was done either via the MPESO Web site or through a cell phone application. MPESO provided its agents with cell phones at a cost of NIO 180 (USD 7). To ensure that agents had enough saldo in their accounts for user recharges, an MPESO support team traveled about communities all day on motorcycles, collecting cash from agents and replenishing their accounts with saldo. These motorcyclists went out in pairs — one would collect feedback from the agent while the other collected cash. This feedback loop ensured that the company knew what agents and users were saying about its product and that it found where improvements were needed.⁴⁵ The motorcyclists visited most agents once a day. However, busy agents could be visited multiple times in a day, and agents who were not as busy, once every other day.⁴⁶

As M-PESA and other successful mobile money companies had shown, the agent network was critical. Agents were the face of the company. Users interacted with them, not MPESO employees, on a daily basis. When looking for agents, MPESO sought aggressive entrepreneurs and well-liked community leaders. Montealegre personally checked in with his top agents every few weeks to stay attuned to events on the ground.⁴⁷

MPESO did not allow just anyone to become an agent. The company had to strike a delicate balance between having enough locations to satisfy user demand and creating a sense of exclusivity around being an MPESO agent. In this way, the company could encourage agents to attract as much business as possible and to represent MPESO well. MPESO agents made a commission of 4% on each recharge and gained competitive advantage by drawing people into their stores who would likely make additional purchases.

MPESO kept close tabs on all of its agents. In addition to being the face of the MPESO brand, agents carried a real cost for the company — they had to be trained and monitored, and the company provided with them with phones. The company monitored the agents to ensure they were well trained in the recharge system, were not making mistakes while interacting with users' accounts, and maintained a clean store. MPESO evaluated agents by assessing the number of recharges they conducted per day; the average agent completed over 100 transactions each day. The top five MPESO agents made over NIO 25,800 or USD 1,000 in commissions per month.⁴⁸ If an agent location was performing less than 10 transactions a day, revenues would not cover the costs of maintaining the agent. After a week of less than 10 transactions per day, an agent would be warned. If he or she did not improve, the company would sever its relationship with the agent.⁴⁹

Montealegre made exceptions for some agent locations along less frequented bus routes that served populations who were too poor to afford a bus ride every day, yet benefited greatly from ease of access to public transportation if and when they did use it.⁵⁰

Exhibit 3

Haroldo Montealegre Meeting with One of His Top-Producing Agents



Source: Julian Chemyk

Technology

Although the MPESO system could be simplified to a system of credits and debits, the technological infrastructure that allowed this to occur seamlessly and securely was more complicated. The company had to ensure that every transaction was secure and redundant (recorded across multiple servers) and that no one's money was misplaced or stolen. So MPESO's servers were housed in a fireproof, earthquake-proof technological complex.

The technology behind the recharges was not unique. For simple recharges, agents turned to either the mobile phones they received from MPESO or to MPESO's Web app; they simply recorded a user's phone/account number and the amount of saldo to be transferred, and sent this information to the MPESO transaction motor. MPESO used interactive voice responseⁱⁱ for recharges and transfers, because this system allowed for secure interactions with a company's host system via either telephone keypad or speech recognition.⁵¹

The technology behind MPESO's Tarjeta TUC was much more innovative (the company had a patent pending in the U.S.). It was unique compared with most automated fare collection systems in that transactions were not burned onto any physical record. When a user placed a TUC card against the validator, it appeared as though he or she was simply debiting the card, but in reality the card only represented a user's MPESO account; the account balance was not stored on the card.⁵²

The credit was stored in MPESO's server and was beamed to all of the system's validators every 30 seconds. MPESO did not burn account balances onto its cards because doing so would limit the number of

ii Interactive voice response is a technology that allows a computer to interact with humans through the use of voice and dual-tone, multi-frequency signaling (an in-band telecommunication signaling system using the voice-frequency band over telephone lines between telephone equipment and other communications devices and switching centers) tones input via keypad.

places where users could recharge their cards. In New York City, for instance, MetroCards are reloaded at stationary machines. With MPESO, users could credit money from their account to another account from anywhere as long as they had an Internet connection. For instance, a user could be walking toward a bus while having zero balance, yet if someone were to credit his or her account, by the time that person got to the bus, the money would be available in the account. For mobile money purposes, this universality of access was crucial because it allowed users to keep their money in one central account — they pulled money from the same account whether they rode the bus or sent money to a friend. And if their card was lost or stolen, users could easily invalidate their cards by calling MPESO without losing their account balances.⁵³

Business Model

There is an important distinction to be made between MPESO users and MPESO customers. The 700,000 Nicaraguans who rode the bus using their Tarjetas TUC were not MPESO customers in the sense that they were not charged for riding the bus. Rather, they were MPESO users who had received their cards for free, were not charged for depositing money into an account, and paid the same bus fare as those who remained in the cash system.⁵⁴

The bus cooperatives were MPESO's customers. They paid MPESO 8% of every bus fare that they collected. What is significant about this arrangement is that even after this service fee, the cooperatives remained in a better financial position than they had been prior to their partnership with MPESO because there was no way for bus drivers to pocket fares. Through TUC, the bus cooperatives also gained more transparency and insight into their bus routes and capacity, which could be leveraged to optimize transport.⁵⁵

Only after the launch of TUC did MPESO achieve the critical mass of users necessary to cover fixed and variable costs and make the company cash flow positive. (As a private company, MPESO did not report financial information.)⁵⁶ To grow its profits, MPESO had to scale.

MPESO also had partnerships with utility companies in Nicaragua, which leveraged MPESO's platform to make user payments easier. MPESO users could log in to the MPESO Web portal and pay their utility bills by debiting their MPESO accounts. To these companies, MPESO similarly charged a flat rate of 5.61 NIO to 6.45 NIO (USD 0.20 to USD 0.50 per transaction).⁵⁷ Advertising was another space where MPESO hoped to grow. The company had recently seen increased demand from businesses wanting to place advertisements on the Tarjeta TUC as well as on the validators. While advertising remained a small portion of MPESO's overall revenues, the company planned to begin distributing only cards that carried advertising, generating a source of revenue that had almost zero cost associated with it.⁵⁸ (For a diagram of the MPESO ecosystem see **Exhibit 4**.)

MPESO Impact

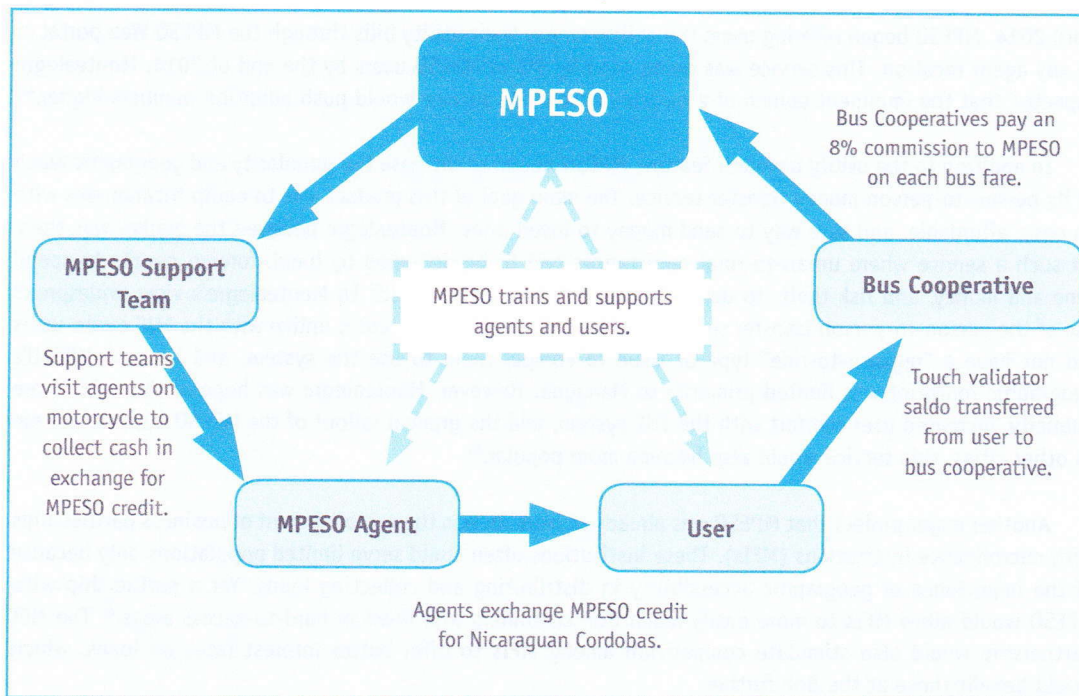
Impact Achieved

MPESO was both disruptive and transformative. A year after the launch of TUC, MPESO had become the exclusive form of payment on 95% of the buses in Managua and was processing over 1 million transactions daily worth more than NIO 20 million or USD 700,000.⁵⁹

As a service company, MPESO's most important stakeholders were its users and customers. Users liked the TUC system because it was more efficient than the previous cash only system. Under the cash system, riders often would not receive change from the bus drivers. Or when they were receiving change, they had to wait to board the bus while the process took place. Many also felt safer under the MPESO system because they no longer had to carry cash.⁶⁰ MPESO had additionally provided users a more secure way to save their money. Instead of putting money under the mattress or investing it in livestock, people at the BoP were

introduced to a novel system through which they could transfer their money to another party while having an account that they could trace and withdraw money from when necessary.

Exhibit 4
MPESO Ecosystem



Source: Created by GlobalLens using information provided by the authors.

Customers such as the bus cooperatives were happy because they were seeing a constant increase in month-over-month ridership numbers (based on a reduction in theft by bus drivers). Likewise, agents enjoyed the increase in foot traffic that MPESO brought to their businesses. Some were even making noise about offering additional MPESO services, indicating that they would be able to increase foot traffic further if they could offer more services.⁶¹

Other stakeholders were also happy. Bus drivers had expressed appreciation for how the MPESO system simplified their jobs, including not having to make change as people boarded. Previously, drivers also had to count the amount of fares collected each day to calculate how many riders had been on their bus. With MPESO, this was no longer necessary, which in turn shaved time off of their workday.⁶²

MPESO Potential

In Montealegre's view, the large banks lacked innovation. They could not truly understand the poor because they had been created "by the top of the pyramid, for the top of the pyramid."⁶³ The advent of MPESO, on the other hand, heralded big changes.

As impactful as TUC had been, Montealegre thought the system was only one of many lifestyle enhancements that mobile money could provide to Nicaraguans, and one of the less significant ones at that. Because of people's reluctance to adopt new technology, the large-scale expansion of financial services that

Montealegre had first envisioned for Nicaragua had not yet come to fruition, although he believed it was on its way.⁶⁴

Of the services already available to users through the MPESO platform, the product that was gaining the most steam was the option for users to pay their utility bills. In Nicaragua, paying utility bills had long been a time-consuming process with no option to pay online.⁶⁵ Seeking to capitalize on this inefficiency, in April 2014, MPESO began offering users the ability to pay their utility bills through the MPESO Web portal or at any agent location. This service was being used by 5% of MPESO users by the end of 2014. Montealegre expected that the imminent launch of a mobile app for this service would push adoption numbers higher.⁶⁶

In addition to the utility payment feature, MPESO hoped to increase the popularity and geographic reach of its person-to-person money transfer service. The main goal of this product was to equip Nicaraguans with an easy, affordable, and safe way to send money to loved ones. Montealegre believed the market was there for such a service where urban-to-rural remittances had to be delivered by hand, forcing people to spend time and money, and risk theft, to deliver payments to their families.⁶⁷ In Montealegre's view, widespread use of the person-to-person transfer service had not yet caught on because, unlike with the TUC cards, users did not have a "register-to-ride" type of issue to compel them to use the system, and because MPESO's geographic footprint was limited primarily to Managua. However, Montealegre was hopeful that with more publicity, increased user comfort with the TUC system, and the gradual rollout of the MPESO bus fare system to other cities, this service would also become more popular.⁶⁸

Another major project that MPESO was already at work on was the establishment of business partnerships with microfinance institutions (MFIs). These institutions often could serve limited populations only because of the importance of geographic accessibility in distributing and collecting loans. Yet a partnership with MPESO would allow MFIs to more easily reach BoP customers who lived in hard-to-access areas.⁶⁹ The MFI partnership would also stimulate competition among MFIs to offer better interest rates on loans, which would benefit those at the BoP further.

One last project that MPESO hoped to win by leveraging its existing platform was the distribution of government subsidies. For example, bus cooperatives traditionally received a lump sum subsidy to cover less traveled routes, but the government had no way of properly measuring how many passengers each route served. Some cooperatives would take advantage of this by running fewer buses. MPESO would foster accountability and transparency in this area by providing the subsidy distribution agency with accurate, real time data on the number of clients served by each bus.⁷⁰

Expansion in Nicaragua

With the implementation of the TUC system complete, MPESO found itself on stable footing. The company was finally cash-flow positive, and its transaction and user numbers were growing daily. Despite this success, Montealegre knew that things remained far from his original vision for mobile money in Nicaragua.

In a way, Montealegre saw himself as the entrepreneurial champion of the common man in the financial services industry in Nicaragua. He continuously strived to reach BoP customers who were traditionally ignored by the formal financial sector. His ultimate goal was therefore much larger than achieving change in Managua's bus system. He was in pursuit of complete and universal financial inclusion. And he believed that MPESO could be the vehicle to get there.

But expansion was being hindered by logistics. He had already agreed to partner with cooperatives and local governments in other cities, but was waiting for the cooperatives to replace their buses. Both the

municipalities and MPESO agreed that installing the MPESO validators into old, decrepit buses would be a waste of time and money.⁷¹

Montealegre knew that expansion of the bus fare system to other municipalities would provide the impetus for the adoption of person-to-person transfers and other financial services such as savings and MFI partnerships. Yet as exciting as these projects and developments were, Montealegre also expressed uncertainty about how he would be able to get around to all of them. Although MPESO had 80 employees, there were times when Montealegre found himself at a loss for skilled manpower.⁷²

While Montealegre felt that he could put into effect many positive changes in the country he loved, he also acknowledged that he could only do so much in the short term. The businessman in Montealegre also knew that it would be smart to keep his foot on the gas of the most successful and sustainable product he had thus far managed to create: the TUC system.

Expansion Abroad

Montealegre had great hopes for increased penetration of MPESO in Nicaragua, but the realist in him had to admit that MPESO faced several obstacles in the adoption of new products and services. He believed that widespread adoption would happen, but would likely take a few years. These obstacles included creating the technology behind these different platforms and getting buy-in from users.

In contrast to the puzzle he faced back home, Montealegre had been contacted by bus cooperatives from abroad that were hoping to bring MPESO to their countries. He had already conducted extensive talks with representatives in the Dominican Republic and Costa Rica. Some of the bus cooperatives and governments of these countries saw how successful MPESO had been at transforming Managua's bus fare system, and they were hoping to see that success replicated in their own backyards.

Montealegre likewise saw other opportunities in these two countries. Even though the unbanked rates there were not as high as they were in Nicaragua, the constraints in access to financial services were significant. Montealegre not only wanted to provide financial services to those who did not have access to them — he also wanted to get people with bank accounts to use their money in ways that would be as free as the Internet and modern communication would allow.

There was also a significant number of Nicaraguans living abroad, particularly in Costa Rica. In 2014, approximately 400,000 Nicaraguans⁷³ sent USD 282 million back home from Costa Rica, both as payment for services and as transfers to family.⁷⁴ In Montealegre's view, this population represented a large, untapped market — getting them to adopt MPESO would create a surge in person-to-person transfers, raising the visibility of the service and potentially providing the key to its widespread adoption.

It was also attractive for MPESO to expand abroad from a bottom line perspective. Montealegre had spent years and invested much capital in developing the MPESO bus fare product into a tour de force back home, a position that afforded him strong leverage in negotiations with potential partners abroad. For one, Montealegre did not have to spend a year proving to these outside partners why the MPESO bus fare product made sense for them; the impact had been proven, and the potential partners were already interested in the platform. Montealegre was also confident that he could easily transpose what had worked in Nicaragua to these foreign markets. After the Nicaraguan implementation, he knew which mistakes to avoid and was aware of the factors that had complicated the original rollout.

All in all, although expanding the bus fare product to Costa Rica and/or the Dominican Republic would create more MPESO users and increase both the company's revenues and its geographic footprint, Montealegre had to consider whether the move would dilute his original mission — financial inclusion back home. Still a start-up, MPESO risked losing its brand in Nicaragua if domestic operations were placed on a back burner or not managed as proactively as they had been up to that point.

Part of Montealegre believed that he could focus on both expanding abroad and on maintaining momentum within Nicaragua. Still, if he spent most of his time in Costa Rica and the Dominican Republic, it would be difficult to innovate and break into new markets at home, particularly if business abroad precluded him from traveling back home to manage domestic operations firsthand.

Montealegre was torn. Opportunities abroad could be lucrative, but he had founded MPESO as a means of extending financial services to the citizens of the country he loved. He now had to decide if the benefits of expanding operations to new countries were worth delaying or compromising his mission at home. He also wondered if expansion abroad could ultimately benefit MPESO's penetration in Nicaragua.

Acknowledgments

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First Place

teaching note 1-429-424

April 3, 2015

MPESO: Democratizing Financial Services in Nicaragua — Teaching Note

Case Overview

In this case study, Haroldo Montealegre, founder and CEO of MPESO, struggles with a decision between adding to his portfolio mix for base of the pyramid (BoP) consumers in Nicaragua and expanding his geographic footprint with a more limited social impact.

MPESO is a mobile money platform that provides users with access to financial services previously unavailable to them. The majority of the population of Nicaragua does not have access to formal financial sectors, but does own a cell phone. This is a common theme across the developing world and has prompted the market entry of a number of mobile money platforms. However, to succeed, these enterprises must satisfy at least two critical factors — create an expansive and well-trained agent network and offer a product compelling enough to spur adoption. MPESO's "killer" product is a mandatory bus fare card used by riders in Managua, Nicaragua.

Its partnership with the bus cooperatives in Managua has made MPESO cash-flow positive. By May 2014, MPESO had over 700,000 users, and the company processed over 1 million transactions worth 20 million Nicaraguan córdobas, or USD 700,000, on a daily basis.ⁱ However, Montealegre has been sidetracked from his mission of leveraging mobile money as a way to bring financial services to those at the BoP. He wants to expand MPESO's product offerings and encourage Nicaraguans to use more of its services such as person-to-person transfers and utility payments, but adoption has been slow.



ⁱ The córdoba-dollar exchange rate as of May 2014 was NIO 25.81 to USD 1.



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©2015. Rodrigo Cuestas and Julian Chernyk. This teaching note was written by Yale University students Rodrigo Cuestas and Julian Chernyk to be the basis for class discussion rather than to illustrate either the effective or ineffective handling of an administrative situation. It accompanies the GlobalLens case, *MPESO: Democratizing Financial Services in Nicaragua*

On the other hand, investors and bus companies elsewhere in Latin America have approached MPESO about launching products similar to the company's Nicaraguan bus card. From a bottom-line perspective, MPESO has created a proven product, giving it the negotiating power to secure better commissions and concessions. Montealegre does not have to spend a year proving to these stakeholders why the bus fare collection system makes sense for them — they are already interested in the platform. He is confident that he can easily transpose what worked in Nicaragua to these foreign markets.

Montealegre is torn. Opportunities abroad are lucrative, but he created MPESO to extend financial services to the poorest citizens of the country he loves. He must decide whether the benefits of expansion are worth sacrificing or delaying his mission. Expansion abroad may actually help MPESO increase penetration in Nicaragua.

Teaching Objectives

After reading and discussing this case, students will be able to:

- Discuss the difficulties and impediments of doing business in developing country climates.
- Explore the challenges of upsetting the status quo.
- Understand how mobile money works.
- Analyze how to balance the need for financial sustainability with the social mission of MPESO, and identify if MPESO deserves to be called a social enterprise.
- Recognize the mission drift that financial returns and sustainability can cause.

Teaching Plan

Class discussion should begin with a background on mobile money, the protagonist, and Nicaragua, move to an explanation of the enterprise's operations and business model, and end with the dilemma about the future of the company. Focusing on five tabs (discounting the introduction) and assuming a 75-minute session length, the class should be equally divided into five 15-minute intervals with the last and shortest tab giving way to the discussion of the primary case questions.

Background

Due to the nature of the space (mobile money), the case is purposely designed to give students a history and tutorial of mobile money. The history is important in that it gives students a context with which to frame the environment in Nicaragua. The most important parts of the background on mobile money are the critical success factors. Students must understand the importance of an agent network and a compelling product offering (and that these elements can be different in each country and why). In this section, focus less on how the technology or business model works (as that will be addressed specifically for MPESO later in the case).

The background on Nicaragua is important to the case, but there is nothing that needs to be discussed in particular detail. Draw comparisons between the data in Africa and Latin America regarding the unbanked and cell phone penetration. It is also important that students understand how poor and slow to adopt Nicaragua is. This is difficult to grasp without having visited the country, but students from Western developed countries with checking accounts and credit cards may find it challenging to understand why people would be scared of banks or not want a bank account. For the Montealegre subtab, not much discussion is necessary but it is important to convey his passion and that he does care about more than the bottom line.

History of MPESO

In the first subtab, First Steps, students should be able to link the key takeaways from the background tab into the narrative of MPESO (particularly the strong agent network, but lack of a compelling product offering). Also the professor could ask students about their thoughts on Montealegre as a benevolent protagonist: Do they believe he truly cares about social impact or is he more profit/greed motivated?

For the partnership with the bus cooperatives, students should discuss the mutual benefits for both parties and explain how ethical they believe Montealegre's plan was. Did MPESO and the bus cooperatives strong arm people into something they did not want? Or is this a case where the people do not know what is best for them? Or does it even matter what the people want (they still have to ride the bus)? A year is a long time, and for those outside of the process, it may seem ridiculous for a decision to take that long. Be sure to emphasize the number of meetings Montealegre had with the bus cooperatives as well as the difficulty of getting 26 of 28 cooperatives to agree to sign on. Paranoia and importance of trust in business in Nicaragua cannot be overstated: Bus owners worried they would go from being robbed by their drivers to being robbed by MPESO. Also ask students what their thoughts are on the this question: Would an automated fare collection system drive ridership down?

The Implementation subtab is one of the most important in the case as it demonstrates the soft work that Montealegre had to do to successfully launch the tarjeta TUC. Understanding the magnitude of the project is necessary. Many other social enterprises start small and expand, but due to the critical mass of users necessary to cover their fixed costs, mobile money platforms will fail if they do not grow quickly.

Operations

The Operations tab is designed for readers to understand how MPESO's mobile money platform works from the perspective of its various stakeholders. There is less room here for subjective discussion and the instructor should take the time to ensure that students understand how mobile money works and the role of each stakeholder. The instructor should also ask how this differs from a traditional banking system (answer: accessibility/cost and MPESO does not do anything with users' money, i.e., loan it out in order to collect interest).

The Technology and Business Model subtabs show how MPESO differentiates itself. Montealegre is proud of his patent-pending system and how it is more sophisticated than many public transportation systems in the United States.

For the business model, ensure that students understand the difference between user and customer. For now, the 700,000 users are not customers, but eventually MPESO hopes to make them paying customers. The motorcycle support teams are crucial. If agents are not maintaining liquidity, then users will become irate, as they will be unable to ride the bus.

Impact

Here again the question of whether MPESO is a social enterprise should arise. Students should voice their opinions on whether improving public transportation (and the profits of bus cooperatives) serves a social mission. What is important (at least in Montealegre's eyes) is that the partnership with the buses (although not a "deal with the devil") allows MPESO to cover its costs, does serve at least some social benefit, and introduces Nicaraguans to the advantages of mobile money. They learn to trust in an institution to hold their money. Montealegre is convinced that the more transformative benefits will come in time. Students should agree or disagree with this viewpoint.

For existing opportunities, ask students to go through each one of MPESO's implemented/proposed projects, analyzing their social impacts and determining how those can be quantified. Have students vote on which one they believe to be the most transformative. Students can also brainstorm for other ideas they believe the mobile money platform would serve as a springboard for. Further information could be provided on the inefficiencies regarding subsidies in Nicaragua. Also important is to dismiss any misconceptions of microfinance institutions (MFI) as benevolent.

Outlook

In this section, the instructor should push the students toward "cracking the case." Here, an obvious solution would seem to do both; some students will surely ask about that. Doing both is an option and will likely occur (as focusing on the Dominican Republic will not cause operations in Nicaragua to halt). However, the innovations and products that excite Montealegre such as MFI and government partnerships will very likely cease (or move at a snail's pace, as no one at the company will be able to push these initiatives). Human capital in Nicaragua and the rest of Central America is a key topic here and as such students should ask the question of who will run operations in foreign markets. Based on what they have read so far, students should decide whether or not they believe that person-to-person transfers and other services will pick up going forward, as users have been able to internalize MPESO for over a year now since the launch of the bus partnership.

Discussion should continue toward the advantages of expansion abroad. Students should consider whether or not expanding the geographic footprint of the company will ultimately allow it to leverage its larger size to reach more users at the BoP. On the other hand, perhaps MPESO will find more success in the Dominican Republic and Costa Rica and morph into a specialized public transportation company. There is no right answer here, but if students understand clearly the slow-going progress in user adoption of other services in Nicaragua, expansion abroad makes financial sense for MPESO. However, once there is consensus among students regarding expansion abroad, instructors should provide the following information:

Difficulties of Replication, Using M-PESA as an Example

In 2008, after the success of M-PESA in Kenya, Vodafone tried to replicate its mobile money platform in Tanzania. Tanzania was similar to Kenya in many ways: population, languages spoken, literacy, unbanked, and mobile phone usage rates. However, M-PESA in Tanzania was not nearly the success it had been in Kenya for two main reasons:

1. Consumer Need

Kenya has a custom of rural to urban migration, with remittances coming from family members who have moved to cities. Since the majority of Kenyans do not have access to financial services, this money was transported home physically, which was both costly and risky. M-PESA's marketing campaign of "Send Money Home" filled this pressing consumer need perfectly. In Tanzania, however, there has been far less migration to urban areas due to an earlier "villagization" policy. Therefore, M-PESA struggled to find a compelling value proposition for consumers.

2. Regulatory Environment

Kenyan regulators were more willing to work with M-PESA because of the low levels of financial inclusion in the country. They instituted a policy of having regulation follow innovation. In Tanzania, the regulators were open to M-PESA, but did not have as close a relationship with Vodafone and thus required more oversight due to concerns over fraud. More importantly, Tanzania differed from Kenya in that it lacked a national identification system (Kenya provided a unique personal identifier). This made registering for the service in Tanzania more time-consuming and inconvenient.

Pedagogy

This case should be separated into three pastures through which the instructor shall lead the students:

- First the introduction and background will educate the students on what mobile money is and its success factors.
- The Operations and Impact tabs will provide the heart of the case in terms of understanding both the technology and business model as well as the environment in which Montealegre persevered and currently operates.
- Finally, once students feel comfortable with both how the company operates and Nicaragua's business climate, the final tab provides a place where they can discuss possibilities for the future as well as whether MPESO should even be considered a social enterprise.

Other Updates as of December 2014

From the question of Montealegre's dilemma, MPESO has begun to shift its focus abroad, especially toward the Dominican Republic. MPESO was selected as the winner for a request for proposal put out by the Government of the Dominican Republic to revamp the country's public bus system. MPESO competed against international companies such as Advanced Card Systems (Hong Kong). MPESO went from being a first mover in Nicaragua to demonstrating that its product is comparable and even superior to others.

Acknowledgments

The authors would like to thank Bo Hopkins, the Jackson Institute for Global Affairs and the Coca-Cola World Projects Fund for their guidance, assistance, and insights in the creation of this case.

Notes

Notes



Since 2007, **GloboLens** has been the case writing and publishing partner for the University of Michigan's Ross School of Business and is a division of the William Davidson Institute. We professionally edit, publish and market cutting-edge business case studies and other teaching materials for adoption by top-ranked business schools globally. Our case studies, modules, and courses cover all core business disciplines as well as social impact-related fields of study. GloboLens teaching materials can be reviewed and adopted at www.GloboLens.com.



William Davidson Institute
AT THE UNIVERSITY OF MICHIGAN

The **William Davidson Institute** is an independent, non-profit education, research, and applied practice organization established at the University of Michigan in 1992. Through a unique structure that integrates research, educational outreach, executive education, field-based collaborations, and development consulting services, WDI works with emerging economies to implement sound business practices and speed the transition to a more inclusive global society.

Appendix B: The Online Case Format (8 examples)

Students in the class get basic training in case development and presentation of an “online case” format, as represented by the selected examples in Appendix B.

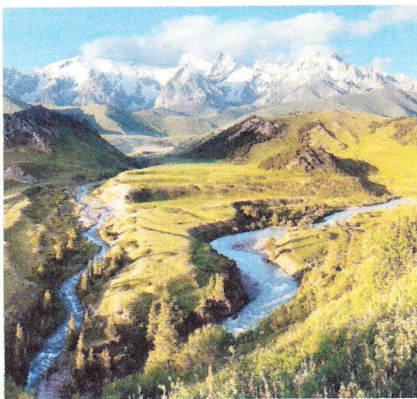
Online cases follow the same narrative construct of written cases, but have the added capacity to include video footage, linked documents and references, and narrative techniques that allow for a richer representation of the host. Therefore, while students are with their hosts over the summer, they may request to film interviews, customers and contextual references.

Selected Online Case Examples

The following 8 additional cases are approved for viewing by a general audience. These actual case examples from undergraduate student work have been published in the case library of the Yale School of Management. All copyrights apply. More information, including the student authors, is available through the online case or at <https://se-hopkins.yale.edu>.

[Kompanion Financial Group \(Kyrgyzstan\)](http://vol11.cases.som.yale.edu/kompanion-financial-group)

<http://vol11.cases.som.yale.edu/kompanion-financial-group>



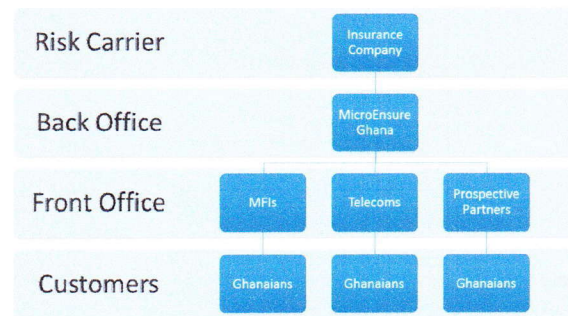
KOMPANION BANK

Kompanion Financial Group, headquartered in Bishkek, Kyrgyzstan is a microfinance bank with a bold mission. Like other microfinance institutions (MFIs) around the world, Kompanion provides an essential financial service in communities that lack access to credit from the traditional banking sector. These services are especially important in Kyrgyzstan, where the collapse of the Soviet government has left decaying infrastructure and distressed finances. Poverty is especially acute in remote, rural areas. For the farmers and village entrepreneurs who comprise the bulk of the country's population, MFIs like Kompanion offer a path to a better life.

[MicroEnsure Ghana \(Ghana\)](http://workshop1.cases.som.yale.edu/microensure-ghana)

<http://workshop1.cases.som.yale.edu/microensure-ghana>

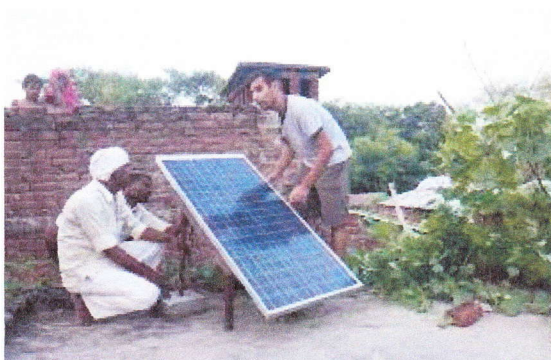
MicroEnsure Ghana was a microinsurance broker dedicated to providing insurance for low-income Ghanaians with few other options to protect themselves from life's risks. By 2011, the business had become one of the most celebrated social enterprises in Africa. MicroEnsure Ghana was lauded for its effective leveraging of partnerships and mobile technology to bring insurance to the Ghanaian mass market. In June 2011, the company won the International Finance Corporation Sustainable Finance Award in the category "Achievement in Financing at the Base of the Pyramid".



The growth of MicroEnsure Ghana was not always so optimistic. When Peter Gross joined the office in February 2010 as Country Manager, the company was working with two partners to serve only 20,000 clients. As Peter developed partnerships with more microfinance institutions, the number of clients increased to 100,000 in November 2011. MicroEnsure Ghana's growth accelerated rapidly with the introduction of the Family Care Insurance product with Tigo, a major mobile telecommunications company. By December 2012, MicroEnsure Ghana insured over 1,000,000 lives and was searching for opportunities for further expansion.

Mera Gao Power (India)

<http://vol11.cases.som.yale.edu/mera-gao-power>



In September 2012, Nikhil Jaishingani poured over Mera Gao Power's (MGP) records in his small office on the third floor of one of Sitapur district's tallest buildings. From his window he could see a large portion of the Sitapur residential community in Uttar Pradesh (UP), India, just 200 miles east of Delhi. By day, the villages dotting the countryside blended seamlessly into the edges of Sitapur, but at night they revealed a stark contrast between the haves and have-nots; some homes were lucky enough to be within reach of India's antiquated, inefficient, and unreliable electricity grid, allowing them to extend their working hours, while those beyond the outskirts of Sitapur were immersed in darkness after sunset. These observations pre-occupied Nikhil as he reviewed MGP's records.

The week's growth report was positive, but not by much. MGP had electrified an additional three villages with its off-grid solar system. This brought the total to 64 villages, all paying for a service no one could have imagined just a few years earlier. Though eager to grow MGP, Nikhil knew that its bank account would soon be depleted and the company would have to wait until the next disbursement of its USAID grant before expanding further. Nikhil faced tough decisions. Should he increase weekly subscription fees? Scale the number of villages serviced by each MGP hub facility? Expand into new markets? As he looked across Sitapur, Nikhil collected his thoughts and prepared for the strategy review session with his managers that would take place later that afternoon.

Runa Tea (Ecuador)

<http://vol11.cases.som.yale.edu/runa-tea>

Before the sun rises above the canopy of the Amazon and the night's mist has yet to lift, the Kichwa people, an indigenous group in the Ecuadorian Amazon, gather around the fire with their families. As the guayusa leaves boil, they share ancient lore, interpret their dreams and plan for the day ahead. The tea, sipped from hollow coconut shells, provides them with the energy needed to perform their daily activities, such as farming their chakras and hunting the small mammals of the rainforest. For thousands of years, the Kichwa people, along with other indigenous groups, have grown and enjoyed guayusa as a way to be runa, fully alive.



A recent Yale School of Forestry graduate, Eliot Logan-Hines was eager to launch a new project in Latin America, where he had previously started an NGO. Eliot had heard of a new organization, Runa, that was working in Ecuador to build the first guayusa supply chain in the world and seeking an environmental consultant. He was intrigued and, in 2010, traveled to Ecuador to visit their small operations. It clicked. Eliot was fascinated with guayusa and saw Runa's potential for profound, long-lasting change.

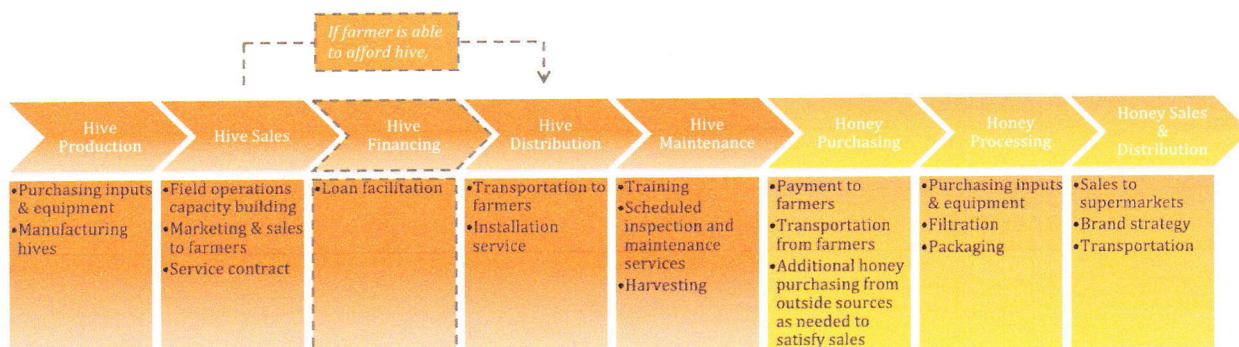
The two co-founders of Runa, Tyler Gage and Dan MacCombie, launched the business in 2009, fresh out of Brown University. They developed an integrated supply chain that would bring guayusa from the farmers' land in the Amazon, to tea-drinkers in the U.S. But Tyler and Dan's vision for Runa went beyond business operations—it was rooted in a desire to help the Kichwa

people improve their livelihoods. For this reason, they decided to build a Foundation that would ensure their business operations were socially responsible.

Honey Care Africa (Kenya)

<http://vol11.cases.som.yale.edu/honey-care-africa>

For thirteen years, Honey Care had been working to increase the income of small-scale farmers in Kenya by helping them produce and sell honey. In order to achieve this mission, Honey Care guided farmers all the way down the honey supply chain –producing and selling modern hives to farmers, managing the hives from installation to harvest to ensure quality honey production, and purchasing the produced honey from the farmers. Honey Care then packaged and sold the honey to urban markets in order to make profit.

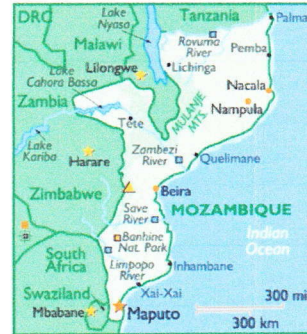


Thus, the company’s social enterprise model was composed of two parts: (a) hive operations, the primary social component of the business; and (b) honey operations, the primary financial component. For the social component to succeed, Honey Care’s farmers needed to generate enough supplemental income to cover the cost of their hives and have money left over to improve their livelihoods. For the financial component to succeed, Honey Care’s honey sales needed to be profitable enough to cover the costs of hive operations. Thus, Honey Care’s ability to deliver value to subsistence farmers depended on the success of every step of its model.

In 2012, Honey Care was considering alternative financing mechanism – connecting farmers to loans from Kiva, rather than subsidies from NGOs or microloans from MFIs. Unlike the other options, Kiva would give farmers ownership of the hives without an impossibly high interest rate and strict repayment schedule. In addition, Kiva would let Honey Care decide when and where to give out loans. Honey Care was optimistic that it could use Kiva to both reach lower-income farmers and achieve financial growth, but loan repayment deeper down the economic ladder was still an unproven hypothesis.

Millennium Maize Mills (Mozambique)

<http://vol11.cases.som.yale.edu/millennium-maize-mills>



After Mozambique's independence in 1975 from nearly five centuries of Portuguese rule, the country's development continued to be hindered by large-scale emigration, drought, and a brutal 15-year-old civil war that ravaged the entire nation. Beyond the emotional and social scars that continue to plague the national conscience, the war destroyed the country's nascent industries, and by the late 1990s, Mozambique ranked among the world's poorest nations, with most people toiling on subsistence farms.

In the midst of this difficult environment, TechnoServe, a Washington, D.C.-based non-profit organization with decades of experience creating business solutions to poverty, entered Mozambique in 1997 with the goal of stimulating the post-conflict economy from the bottom up. Their list of successful projects to date includes a program to revitalize the nation's cashew nut industry, once the nation's largest, as well as a thriving domestic poultry venture, which have provided sustainable livelihoods to Mozambicans across the country.

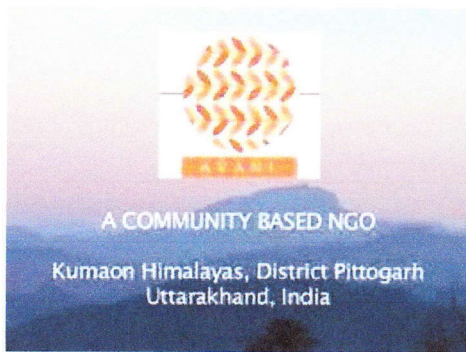
TechnoServe-Mozambique's most recent venture is the Millennium Maize Mills project, which aims to harness business principles to address the need for expanded access to quality grain mills in rural areas, primarily for the processing of maize into flour, the primary staple food of the country. Recognizing the social and economic importance of maize, as well as its scarcity during the dry season, TechnoServe launched the MMM project to promote its vision for the sustainable transformation of food systems in Mozambique through a standardized network of franchise mills. The case takes place in Ribáuè, a village of 8,000 inhabitants in central Nampula Province, which was selected as the site for the pilot mill.

Avani (India)

<http://workshop1.cases.som.yale.edu/avani>

Through a partnership with Acumen and the Uttarakhand state government, Rajnish founded Avani Bio Energy (ABE) in 2011 and devised a plan to reduce the incidence of forest fires in the

region and protect the Kumaoni environment. The company would build gasification plants powered by the region's vast quantities of pine needles. Local workers would collect the pine needles, providing the dual purpose of providing fuel for the power plants and boosting employment in the impoverished region. Then, ABE would sell the clean energy produced at the plants directly to the state electricity utility. Profits would cycle back to the pine needle collectors, providing their families with more disposable income and improving their livelihoods.



Rajnish encountered numerous challenges during the company's early stages, but his entrepreneurial drive eventually paid off. After many exhausting setbacks, construction of the first functional biogas plant was completed in early 2014. In May, the plant was successfully connected to the state power grid, and ABE finally seemed to be taking off. Indeed, the innovative technology, hard work of his staff, and strong partnership with a top impact investor gave Rajnish a lot to be proud of.

Global Environment and Technology Foundation (Ghana)

<http://workshop1.cases.som.yale.edu/global-environment-and-technology-foundation>

Based on initial survey data compiled by the Water Point Data Exchange (WDPx), Brian Banks of GETF wanted to study the idea that could help to solve Ghana's water sustainability problem: a water pump insurance product for rural, low-income villagers. The WDPx data revealed the extent of the problem of water sustainability in Ghana, and across the world. Hand pumps, supposed to last six to eight years with proper maintenance, were breaking down with much higher frequency; and, importantly, they were usually never fixed.



Frequent pump breakdowns and lengthy downtimes were at the root of Ghana's rural water issues. Water access in Ghana is as much a political issue as a logistical one. The government, NGOs, and private enterprises all maintain their own theories of how best to help rural Ghanaians maintain access to sufficient supply. Brian hypothesized the villagers would be better off if they helped themselves by expressing "demand" characteristics for timely service and repair. While the data comprised within the WDPx could act as an actuarial model to intrigue insurance underwriters, what he needed was a "Voice of the Customer" - local Water Source Management Committees (WSMTs) - expressing knowledge of insurance markets and payment models to convince underwriters of long term viability in this market. A team of Yale University students spent approximately 6 weeks administering detailed surveys to WSMTs in communities across the country. The team collected data from 41 communities -- 36 communities in the Bosomtwe District in the Ashanti region, and 5 in the West Mamprusi district in the Northern region. Their findings are detailed in the case.

Appendix C: Term One Syllabus

The following syllabus (2019) is representative of the readings, case examples, and exercises students are required to complete during Term One. Every year the syllabus changes based on past class experience or as additional materials become available.

The class is formatted to meet once per week over the 13 weeks that comprise each of Terms One and Terms Two. Term Two is largely self-directed by each team as it completes the case, teaching note, and/or any follow-on work that may be required from the summer project.

Social Enterprise in Developing Economies

Market Solutions for Inclusive Societies

2019

Professor: Bo Hopkins

Day and Time: Tuesday 1:30-2:50

Location: TBD

Office: Rosencranz 146

Office Hours TBD

Overview

Harnessing the power of markets in the fight against poverty has been an area of much study and experimentation over the past 40 years. Increasingly, business innovators are using market-based practices as a means to bring sustainable social benefits to locally impoverished regions of the world and provide a financial return to investors. Commensurately, many socially-oriented and innovation-minded investment groups are looking for these types of investments – bringing additional capital to this nascent marketplace. Philanthropic organizations and corporations also seek development of a more unified system of metrics to measure the impact of grants, program related investments or base of the pyramid investments. Through required readings and case study examples, this class will explore the increasing importance of enterprise solutions as a means of fostering local empowerment to establish the building blocks of regional economic development.

Focusing on the African continent, this seminar class will use a case-based approach to promote active class participation. We will discuss and explore the many financial, organizational and cultural challenges faced by socially motivated organizations, their sponsors and collaborators. In addition, students will be required form and work in small teams with one of several host organizations on the Continent. Introductory work with the host organizations will begin in February and students will be expected to spend 8-10 weeks of their 2019 summer completing field research with the organizations they choose. Funding for these trips will be provided by grants from the MacMillan Center and from other travel grants regularly available to Yale students.

Application required.

Spring Term Requirements

The class will meet once each week for discussion and case evaluations. Students are expected to complete all case readings and be prepared to offer their classmates a concise summary of the week's topic. Written summaries will be required weekly. See "Grading" for more information about spring class requirements.

Summer Expectations

By the end of the spring term, the class will have completed the review of three broadly defined trends regarding social enterprise:

- The early 21st century represents a unique moment in time when demand for poverty alleviation is met with increasing supply of highly motivated, innovative and market-oriented entrepreneurs who are unwilling to accept the status quo;
- The emergence of an increasing number of cross-sector partners, each desirous to bring their respective strengths (and interests) to bear on the challenges and opportunities to these entrepreneurs and the markets they represent;
- Capital demands of these entrepreneurial organizations are starting to be met by enthusiastic, but tentative, new sources of supply, which bring equally innovative measures of return expectations and impact requirements to the table.

Building on these themes, students will be required to develop a "raw case study" representing a socially innovative enterprise of their (team's) choice – selected from a list of preapproved developed by the instructor.

Fall Term Requirements

We will reconvene as a class in the fall with four specific objectives:

- Report out on findings and share experiences particularly related to expectations going into the summer matched against any "new realities" experienced on the ground;
- Complete the research phase of the project to prepare and present findings to each team's host client;
- Develop a completed (team) case study suitable for publication to later classes and or recognized case writing competitions;
- Complete an accompanying "teaching note" highlighting the major issues of the case as they relate to the theoretical underpinnings learned in the first term.

We will also meet weekly as a class in the fall and will be comprised of a mix of seminar discussions, or cases which highlight many of the unique challenges (organizational, financial, and cultural) that entrepreneurs can face. This time will also be reserved for teams to meet with me on the specifics of your ongoing project deliverables.

Grading

The spring 2019 class is open to students in their sophomore or junior year. In the event of oversubscription, preference may be given to students intending to major in African Studies. The fall 2019 class will only be open to those student teams which successfully complete the spring prerequisite. The course will be graded in both spring and fall semesters. To achieve the maximum potential from this seminar, students are expected to commit to the planned summer experience and requisite follow up class in the fall.

Spring term Grades will be determined as follows:

Class Participation	10%
Individual Case Write-ups (9#)	40%
Team Deliverable 1 (Host Prep)	20%
Team Deliverable 2 (Week 10)	10%
Team Deliverable 3 (Week 11)	10%
Team Deliverable 4 (Week 12)	10%
Peer Review	<u>5%</u>
	105%

Fall term Grades will be determined as follows:

Team Project Completion	15%
Team Case Outline - Presented	15%
Team Case Draft - Presented	15%
Team Case Final - Presented	15%
Team Online Case Final	20%
Team Case Teaching Note	20%
Peer Review	<u>5%</u>
	105%

2018 Syllabus (Topic/Assignment Summary)

<u>Mon</u>	<u>Topic</u>	<u>Case Assignment & Discussion</u>
Jan 15	Introduction/Overview	Previous year example
Jan 22	Microfinance	Hand-in-Hand
Jan 29	Elements of Social Enterprise	Samasource
Feb 5	Business Model Gen. Canvas	MicroEnsure- Ghana
Feb 12	Emerg. Markets/Emerg. Models I	Embrace
Feb 19	Emerg. Markets/Emerg. Models II	HoneyCare
Feb 26	Blueprint to Scale	One Acre Fund
Mar 5	Case Writing Seminar	Jaan Elias - Guest
Mar 26	Guest (Ruthie Rosenberg)	Sanergy
Apr 2	Technology/Healthcare	Sproxil

Apr 9	Technology/Microfinance	Inventure (Tala)
Apr 16	Teaching Notes	Various
Apr 23	Wrap Up	GETF

Note: All written assignments are due before 4 hours before the beginning of the class in which they are due. Late assignments will not be accepted. Cases are available from HBS publishing.

Syllabus (Subject to Change)

Week 1 – Tuesday, January 15: Shopping Week: Introduction & Class Overview

In this class we will review the overall topic, class structure and expectations. We will also discuss the formation and objectives for summer case projects and funding requirements. Depending on demand, applications for admittance to the class may be required. Selection priorities will be discussed. There is no assigned reading for this class, but you should come prepared to ask questions about content and work load.

In this class we will also review access to resources and the work of a prior class team to illustrate some of the many topics that will cover throughout the first term. We may be joined by members of the 2018 class. Additionally, we will discuss the list of African projects for summer 2019.

Finally, we will also use class time to discuss my guidelines for a successful term including laptop policy and grading practices.

Assignment: Complete Course Application Form for submission no later than 5pm Friday, January 18th. Accepted class participants will be notified no later than 5pm Sunday, January 20th.

Homework Reading and Case Preparation for Jan 22: Come prepared to discuss the assigned reading(s) and upload your written case analysis before 9:30 am.

Reading:

Millions for Millions, Connie Bruck. New Yorker October 30, 2006

Omidyar Network – Pioneering Impact Investing. HBS. January 2013 (pgs 1-9). Note: Do not read the “Anudip” section, but do skim Exhibits 1-4 (pgs 15-18)

Social Entrepreneurship: Kiva. Stanford GSB pgs 1-3 (ignore discussion questions)

Review the Kiva website: <https://www.kiva.org/>

Graded Assignment #1:

Hand in Hand East Africa – Making Microfinance work at the Bottom of the Pyramid: Submit a paper (estimated 2 pages) addressing the following questions:

1. What is the central dilemma faced by CEO Pauline Ngari?
 2. From your reading of Yunus, Omidyar and other examples, how do the Directors of Hand in Hand seem to position themselves on the topic of financial self-sustainability?
 3. The case goes to some length describing the Four Pillar Model. Why do you think the Directors adopted this model – and is any one pillar more (or less) important than the others?
 4. How would you advise Ms. Ngari about raising the cap on EIF administered loans?
-

Week 2 – Tuesday, January 22: Social Enterprise – MicroCredit/MicroFinance

In this class we will:

- introduce ourselves (10 mins)
- discuss the readings assigned (40 mins)
- discuss the Hand in Hand case (40 mins)
- discuss the team assignment process (20 mins)

Homework Reading and Case Preparation for Jan 29: Come prepared to discuss the assigned reading(s) and upload your written case analysis.

Reading:

Martin Fisher. “Income is Development”, *innovations magazine*, Davos 2008
http://www.policyinnovations.org/ideas/policy_library/data/01375

Bruce McNamer. Helping Africans to jump-start their industries
http://www.mckinsey.com/insights/winning_in_emerging_markets/helping_africans_to_jump-start_their_industries

Graded Assignment #2:

Samasource – Give work, Not Aid: Submit a paper (estimated 2 pages) summarizing Samasource. There are many online videos about Samasource – feel free to use these along with the case reading to address the following prompts:

1. In no more than two-three paragraphs, summarize Samasource – what is a BPO?
2. What are the major similarities or differences between Leila Janah and Martin Fisher?
3. Who do you regard as the “Customer” for Samasource services and why should they be interested in Samasource? Why?

4. Is Samasource in a “competitive” marketplace?

Week 3 – Tuesday January 29 – A Theory of Change

In this class we examine the competing hypotheses of creating business enterprises that aim to serve some of the world poorest populations. Who is at the Base of the Pyramid and why are their needs relevant? What is it about markets that ignore these substantial populations or induce a poverty penalty putting goods and services beyond the reach of these “consumers”?

Homework Reading and Case Preparation for Feb 5: Come prepared to discuss the assigned reading(s) and upload your written case analysis.

Reading:

Alexander Osterwalder and Yves Peigner. Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers. John Wiley and Sons Ltd. Oct 2010. Pgs. 14-55. Available at Amazon: <https://www.amazon.com/Business-Model-Generation-Visionaries-Challengers/dp/0470876417>

Roger Martin and Sally Osbeg. Two Keys to Sustainable Social Enterprise. Harvard Business Press May 2015

In addition, there are many online resources you can use to learn more about the canvas, such as:

<https://strategyzer.com/canvas/business-model-canvas>

<https://www.forbes.com/sites/tedgreenwald/2012/01/31/business-model-canvas-a-simple-tool-for-designing-innovative-business-models/#401a451516a7>

Graded Assignment #3:

Read the “MicroEnsure-Ghana case online (<http://workshop1.cases.som.yale.edu/microensure-ghana>):

- Use the Business Model Generation Canvas to map out Peter Gross’s basic business model to introduce insurance products through commercial outlets like Tigo.
- How do you feel about using a commercial partner – who has a clear marketing /market-share agenda – to help promote and insurance product?
- What else might you consider adding to the Canvas to take account of a “social” enterprise?
- Distinct from the case itself, how well written and presented in this case – which was completed in 2013 by a team of sophomores from Yale. Where would more detail help you (as a reader) understand either MicroEnsure or the principal actors featured? What elements of the one-line case do you complimentary to telling a complex story?

Week 4 – Tuesday, February 5: Frameworks to Consider

Note: Visiting class today will be representatives from Bridge International Academies. You should familiarize yourself with the work Bridge is doing in BoP Primary Education across Africa and around the world.

In this class we will also discuss the concepts presented in the Osterwalder book. The framework is a useful exercise for your teams to use as they consider the operations of summer hosts.

Homework Reading and Case Preparation for Feb 12: Come prepared to discuss the assigned reading(s) and upload your written case analysis.

Reading:

Allen Hammond, et al. “The Next 4 Billion: Market Size and Business Strategy at the Base of the Pyramid” Pgs 3-33. *World Resources Institute (IFC) 2007.*

<http://www.wri.org/publication/next-4-billion>

Ashish Karamchandani, Michael Kubzansky & Paul Frandano, “Emerging Markets, Emerging Models” Page 3-71 *Monitor Group, 2009*

http://www.mim.monitor.com/downloads/emergingmarkets_full.pdf or

https://s3.amazonaws.com/PfP/Monitor_Emerging+Markets_Full+Report.pdf

Graded Assignment #4:

Read the “Embrace” case and address the following prompts:

- Who is Jane Chen and how would you compare her to Martin Fisher or Leila Janah?
- Reflecting on the readings, which of the business models outlined (if any) best describes the Embrace approach?
- Did you develop a business model canvas for Embrace? What are the major elements you find most appealing or challenging for Embrace?
- Where is Embrace today

Week 5 – Tuesday, February 12: Emerging Markets/Emerging Models 1

In this class we get a glimpse into how big markets are estimated to be at the Base of the Pyramid and what obstacles market-based organizations need to overcome to penetrate them. In

particular interest is the approach of “selling into” this diverse marketplace and how consumer behavior impacts the strategy for large and small organizations to reach this potential new customer base

Homework Reading and Case Preparation for Feb 19: Come prepared to discuss the assigned reading(s) and upload your written case analysis.

Reading:

Allen Hammond, et al. “The Next 4 Billion: Market Size and Business Strategy at the Base of the Pyramid” Pgs 85-96. *World Resources Institute (IFC) 2007.*

<http://www.wri.org/publication/next-4-billion>

Ashish Karamchandani, Michael Kubzansky & Paul Frandano, “Emerging Markets, Emerging Models” Page 72-119. *Monitor Group, 2009*

http://www.mim.monitor.com/downloads/emergingmarkets_full.pdf

Graded Assignment #5:

Read each of the three following Honey Care cases

1. Honey Care Africa: A Tripartite Model for Sustainable Beekeeping (Ivey, 2007) and Building a Scalable Business (WDI, 2013).
2. Honey Care Africa (Yale Student Case) <http://vol11.cases.som.yale.edu/honey-care-africa/introduction/about-honey-care-africa>.
3. Building a Scalable Business with Small-Holder Farmers in Kenya: Honey Care’s Beekeeping Model (2013)

Respond to the following prompts

- Who is (are) the customer(s) in this case?
- What relationship does Honey Care strive to have with their customers?
- Over time, has Honey Care’s central mission to support small holder farmers evolved?
- Honey Care has many challenges, what are your biggest concerns as the organization struggles to become financially sustainable?

Note: There is a substantial amount of overlap in the content of each case – so read them for (a) the evolution of the organization over time, (b) the different focus each case takes, and (c) the use of video and other material in the Yale case.

Week 6 – Tuesday, February 19: Emerging Markets/Emerging Models II

Continuing with the same source materials, in this class we explore what it means to approach the BoP as a potential source of “producers” – creating goods and services locally – and the unique challenges that opportunity can present.

Homework Reading and Case Preparation for Feb 26th: Come prepared to discuss the assigned reading(s) and upload your written case analysis.

Reading:

Harvey Koh, Ashish Karamchandani, & Robert Katz, “From Blueprint to Scale” Page 1-57.
Monitor Group, 2012

https://acumen.org/wp-content/uploads/2017/09/From-Blueprint-to-Scale-Case-for-Philanthropy-in-Impact-Investing_Full-report.pdf.

Graded Assignment #6:

Read the Innovation at One Acre Fund case and address the following questions (no more than one page per bullet point):

- How will the 1AF farmers view the introduction of trees? What will be their concerns? What should concern AF about the launch of trees?
- What are the benefits and limitations of the 1AF framework? How would you apply it to trees?
- How can 1AF prioritize the many variables it is trying to assess with the tree innovation? How should 1 AF design the next phase of testing to understand these variables?

Week 7 – Tuesday, February 26: Pathways to Scale

We will spend the entire class discussing the 1AF case and your analysis.

Note: There will be no homework for March 5. However, you should review some of the other Yale developed cases (<https://se-hopkins.yale.edu/course-structure>) and come prepared to ask questions about the case writing, tools to use in the online format, and general questions about how to develop a strong case.

Week 8 – Tuesday March 5: Case Writing Workshop

Today we will be joined by Jaan Elias, Director of Case Writing at Yale SOM

Spring Break

Week 9 – Tuesday, March 26: Welcome Back

Today Ruthie Rosenberg of Sanergy will join us. Please read the Sanergy case before class as preparation. No written assignment is due.

Homework Reading and Case Preparation for April 2nd:

Readings: None

Graded Assignment #7:

Complete the Sproxil case by following the assignment prompts posted on Canvas. Note: this is the first of three team exercises scheduled between now and April 16. Please pay careful attention to the **grading option that your team can elect for these three assignments.**

Week 10 – Tuesday, April 2 – Case Study – Sproxil

Today we will discuss the Sproxil case. Teams will present their portion of the assignment to the class. Discussion will follow as time permits.

Homework Reading and Case Preparation for April 9th:

Readings: None

Graded Assignment #8:

Read the Inventure case and follow the assignment prompts posted on Canvas. Note: this is the second of three team exercises scheduled between now and April 16. The **grading option that your team elected in week 9 remains in effect.**

Week 11 – Tuesday, April 9 – Case Study: Inventure

Today we will discuss the Inventure case. Teams will present their portion of the assignment to the class. Discussion will follow as time permits.

Homework Reading and Case Preparation for April 16th:

Readings:

Yemen, Gerry, "On Writing Teaching Notes Well", Harvard Business Press

Graded Assignment #9:

Read the M-Kopa case and follow the assignment prompts posted on Canvas. Note: this is the final of three team exercises scheduled between now and April 16. The **grading option that your team elected in week 9 remains in effect.**

Week 12 – Tuesday, April 16 – M-Kopa

Today we will discuss the M-Kopa case. Teams will present their portion of the assignment to the class. Discussion will follow as time permits.

Week 13 – Tuesday, April 23 – Final Wrap Up

Today we will review plans and expectations for the forthcoming summer experiences. This will be our last chance together as a class before you head to Africa. Please come prepared with any remaining questions on expectations, host obligations, funding or other topics. I will also outline expectations for the fall term (and we will pick a time to meet if possible).

Notes to Prospective Students:

Academic integrity:

The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful. Plagiarism is the use of someone else's work, words, or ideas as if they were your own. Here are three reasons not to do it:

- By far the deepest consequence to plagiarizing is the detriment to your intellectual and moral development: you won't learn anything, and your ethics will be corrupted.
- Giving credit where it's due but adding your own reflection will get you higher grades than putting your name on someone else's work. In an academic context, it counts more to show your ideas in conversation than to try to present them as *sui generis*.
- Finally, Yale punishes academic dishonesty severely. The most common penalty is suspension from the university, but students caught plagiarizing are also subject to lowered or failing grades as well as the possibility of expulsion. Please be sure to review Yale's Academic Integrity Policy.

You can find a fuller discussion of using sources and avoiding plagiarism on the Writing Center Website.

[Additional Reading Suggestions]

John Elkington and Pamela Hartigan. 2008. “The Power of Unreasonable People – How Social Entrepreneurs Create Markets the Change the World”.

Ellen Seidman, “The Limitations of Randomized Controlled Trials as a Technique for Measuring Complex Change,” (unpublished working paper). Development Finance Forum, 2006

Bill Drayton, “Needed: A New Social Financial Services Industry” *Alliance Magazine*, Vol 9, No. 1, March 2004.

Suzi Sosa, “Too Many or Too Few Choices? The Dilemma of Expanding Financial Access to Underserved Markets” October 2009. <http://www.nextbillion.net/blog/2009/10/02/too-many-or-too-few-choices>

Interview: Paul Brest, Jed Emerson, Katrina Rosqueta, Brian Trelstad and Michael Wienstein published in @lliance, April 2009. www.alliancemagazine.org/node/2128

Justin Webb, Geoffery Kistruck, Duane Ireland and David Ketchen Jr., “The Entrepreneurship Process in the Base of the Pyramid Markets” *Entrepreneurship Theory and Practice* Vol. 34 Issue 3 October 22, 2009

Tim Brown and Jocelyn Wyatt “Design Thinking for Social Innovation” *Stanford Social Innovation Review*, Winter 2010.

David Bornstein (2005) How to Change the World- Social Entrepreneurs and the Power of New Ideas Chapter 21 (Conclusion)

Matthew Bishop and Michael Green. “Philanthrocapitalism” Bloomsbury Press 2008.

Mark R. Kramer “Measuring Innovation” White Paper sponsored by FSG Social Impact Advisors and the Skoll Foundation, 2005.
<http://www.fsg.org/KnowledgeExchange/KnowledgeExchangeArticleDetails/ArticleId/231/Measuring-Innovation-Evaluation-in-the-Field-of-Social-Entrepreneurship.aspx>

Anne Habiby and Deirdre Coyle, “The High Intensity Entrepreneur”, *Harvard Business Review*, September 2010

Geoff Mulgan “The Process of Social Innovation” *innovations* Spring 2006 Pgs, 145-162
http://www.policyinnovations.org/ideas/policy_library/data/TheProcessofSocialInnovation/_res/id=sa_File1/INNOV0102_p145162_mulgan.pdf

Appendix D: Scope of Work (Example Student Project)

Village Reach – effective telemedicine for rural Malawi populations

Ove the summer of 2019, three students visited Lilongwe, Malawi to work with CCPF a tele-medicine initiative undertaken by Seattle-based Village Reach.

This project was “scoped” between the Professor Hopkins and Village Reach over the summer and early fall of 2018. It was presented as one of 5 projects for students to choose among in the first weeks of Term One – which commenced in January 2019.



Scope of Work for Yale Students Social Enterprise

Background: Healthcare in Malawi is a privilege, not a right. With 0.6 medical doctors for every 100,000 people, access to basic care is an unmet need of national importance. Seattle-based VillageReach, a specialist in “last mile” delivery of health services in Africa, has developed a phone-based personalized health information hotline and messaging service that VillageReach will transition to the Malawi government in July 2019. With an eye toward replicating the success of this effort, international health organizations have taken a deep interest in how this program has developed and how the transition will work.

Chipatala cha pa Foni (CCPF) is a toll-free health hotline and personalized health education messaging service in Malawi that creates a link between the health center and remote communities. CCPF is staffed by trained health workers who provide information and referrals over the phone. Originally developed as a maternal and child health innovation, CCPF has evolved to become a general health hotline, covering all general health topics, including nutrition and sexual and reproductive health in accordance with Ministry of Health (MoH) guidelines.

The Yale team of three students will be based in the capital city of Lilongwe working for Country Director Carla Blauvelt. The principal activity will be developing the means to transition working procedures to the MoH and developing a more generic framework to replicate the CCPF model in other African countries.

Selection to this team will be based on demonstrated interest in public health, government partnerships, East Africa and Malawi specifically. No specific language requirements necessary.

The ideal candidate would have the following skill set:

- Passion for sustainable public health
- Interest to work on a project in Malawi with government stakeholders
- Attention to detail, as much of the work will require professionalization of toolkit materials for transition to the government
- Extensive experience with Word, Excel, and PowerPoint
- Ability to meet deadlines
- Able to touch base with the Malawi team twice a month via skype or other internet calling service

Over the period of 2019, the students will be expected to meet the deliverables and dates, as laid out in the table below.

#	Deliverable	Timeline	Estimated level of effort	Notes
1	Familiarize self with Chipatala cha pa Foni (CCPF) <ul style="list-style-type: none"> • Read program materials • Connect with the VillageReach Malawi team by phone/skype 	February 1-15 th	5 hours total	
2	Review and edit CCPF toolkit for transition to government final draft	February 1-February 28 th	8 hours per person	
3	Produce professional toolkit for transition to government	March 1 st -March 15 th	6 hours per person	The toolkit will already be in use for the capacity building but the students will work with the team to produce a professional set of documents for printing and binding for the government
4	Work with government and VillageReach team on professionalizing capacity building training materials	March 1 st -March 30 th	3 hours per person	
5	Work on de-contextualizing CCPF materials for replication: <ul style="list-style-type: none"> • Finalize decontextualized toolkit • Finalize decontextualized training materials 	March 1 st - May 15 th	10 hours per person	

#	Deliverable	Timeline	Estimated level of effort	Notes
	Conduct landscape analysis of other health hotlines in Africa and globally and other Mobile Network Subscribers that exist in countries.			
6	Work with MoH and VillageReach to develop official handover letter and package for signing on June 30 th , 2018	April 1 st -May 1 st	2 hours per person	
8	Visit Malawi to build out replication strategy with team: <ul style="list-style-type: none"> • Participate in any handover event to take place around the June 30th-July 1st handover • Work with team to produce a packet for replicating in 1-3 countries, including interviews with the existing country and replicating countries • Work with team in both Malawi and the proposed replicating country (by phone and internet) to develop a replication implementation plan 	May 15 th –July 30 th	Full time commitment	6-8 may all be done around the same time if a country is willing and eager to begin the replication process
9	Finalize Implementation Plan and strategy	August 1 st -August 30 th	3 hours per person	
10	Work with VillageReach replicating country to re-contextual CCPPF <ul style="list-style-type: none"> • Conduct landscape analysis of replicating country 	September 1 st -October 31 st	5 hours per person	

#	Deliverable	Timeline	Estimated level of effort	Notes
	<ul style="list-style-type: none"> Work with team to develop new country assessment document 			
11	Produce lessons learned and next steps document	November 1 st -November 30 th	3 hours per person	
12	Present learning to classmates	December 5 th	3 hours per person	Present learnings at University Forum

The deadlines for the transition piece are critical to the success of the program and cannot be moved back. Should the students be unable to meet the specified timeline, they should inform the VillageReach Country in advance to avoid any gaps or issues with the transition timelines.

Appendix E: Archive of Host Participants

The following page lists each of the (cumulative) 35 participant hosts since the class was inaugurated in 2011. The class did not operate in either 2015 or 2016 and no projects were undertaken in those years. Prior to 2017, students selected their own projects from any developing country. From 2107 onward, Professor Hopkins has curated each student project and has concentrated regionally on the contentment of Africa.

On the continent, the class has completed 23 projects in 9 separate African countries over this period.

Appendix E – Project Host (archive of participants)

Africa

- [African Health Placements](#) – South Africa (2018)
- [Africa Leadership Academy](#) – South Africa (2011)
- [Bridge International Academies](#) – Kenya (2018), Liberia (2019)
- [EkoCenter](#) – South Africa (2014)
- [Farm Shop](#) – Kenya (2012)
- [Get-It](#) – Rwanda (2017)
- [Global Environment and Technology Foundation](#) – Ghana (2018)
- [Gulu Agricultural and Development Company](#) – Uganda (2018)
- [Honey Care](#) – Kenya (2013)
- [Impact Energies](#) – Ghana (2012)
- [Juhudi Kilimo](#) – Kenya (2017)
- [Kepler](#) – Rwanda (2017, 2019)
- [Living Goods](#) – Uganda (2018)
- [MicroEnsure](#) – Ghana (2012)
- [Middle East Investment Initiative](#) – Tunisia (2019)
- [One Acre Fund](#) – Rwanda (2017)
- [Penda Health](#) – Kenya (2012)
- [Safe Motos](#) – Rwanda (2017)
- [Sanergy](#) – Kenya (2019)
- [TechnoServe](#) – Mozambique (2011)
- [Village reach \(CCPF\)](#) – Malawi (2019)

Asia/South Asia

- [Avani](#) – India (2014)
- [East Bali Cashews](#) – Indonesia (2014)
- [Eko](#) – India (2013)
- [Kompanion](#) – Kyrgyzstan (2011)
- [Meera Goa Power](#) – India (2012)
- [Smart Paani](#) – Nepal (2014)
- [Sunlabob](#) – Laos (2013)
- [Ziqitza](#) – India (2011)

Americas

- [Ecofiltro](#) – Guatemala (2013)
- [MPeso](#) – Nicaragua (2014)
- [Runa Tea](#) – Ecuador (2014)
- [Treebos](#) – Brazil (2013)