Pathways to Accelerate Social Enterprises that use Mobile Information Communication Technology

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Executive Summary
Mobile information communication technology (ICT) is a disruptive force in the developing world, bearing great potential for poverty reduction in the base of the pyramid markets due of its reach into urban and rural communities. This technology's potential can be realized when entrained in innovative social enterprise business models to increase access, reach, and consumer engagement. Social impact, however, is not assured without a disciplined strategic focus employed by successful social enterprises.

Social enterprises that use mobile ICT must understand how mobile ICT applications can be integrated into their business model functions to serve their missions. A purposeful case study of the 2016 Global Social Benefit Institute accelerator cohort reveals that institutional acceleration programs that use a business model centered approach, like the Global Social Benefit Institute (GSBI), effectively support mobile ICT enabled social enterprises on a path towards scaling. GSBI specifically leverages the technology and business model innovation of the Silicon Valley combined with strategically selected learning groups to position social enterprises on a path to scale.

Increased smartphone integration in the developing world, entailing access to mobile internet and mobile apps, presents new opportunities and challenges for social entrepreneurs. Additional research in smartphone integration combined with continual understanding of beneficiary needs and capabilities are necessary to ensure that social entrepreneurs effectively and innovatively deploy mobile technology as a catalyst for widespread prosperity in the developing world.

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INTRODUCTION

This thesis examines the potential for the Global Social Benefit Institute (GSBI) to scale social enterprises using mobile information communication technology (ICT). This potential is only realized after evaluating whether social enterprise has the ability to use ICT reduce poverty in the developing world and can be scaled up effectively. However, modern ICT is broad, all-encompassing tool that is applied across countless organizations and geographies. Although evidence shows that ICT can help businesses achieve efficiencies, the arbitrary application of this technology is insufficient, especially in socially oriented businesses. Rather, the purposeful application of ICT in the context of innovative business models is critical to scaling social impact. Among developing world social enterprises, mobile technology transforms ICT potential, but that potential is only realized in the context of innovative business models. Business models convey social dimensions, including social need understanding and social impact, which are essential to changing lives and making a positive social change. Yet, social enterprises with innovative business models that do not position themselves to fully utilize ICT potential in relation to the sociocultural context of beneficiaries will not fully absorb the immense scaling potential associated with ICT. Therefore, it is this dynamic interaction of mobile ICT and the business model that push forward scaling potential. Aligning these two elements can lead to behavioral shifts that reduce poverty and exclusion in the developing world. Through a case study, this thesis will show that the GSBI accelerator program effectively scales ICT enabled enterprises by utilizing the technical and entrepreneurial innovation in the Silicon Valley to effectively accelerate social businesses.

BACKGROUND

What is Social Entrepreneurship?

In "Social Entrepreneurship and the Non-Profit Sector in Developing Economies," Stecker, Warnecke, and Bresnahan (2017) define four "pillars" of social entrepreneurship. According to the authors, a social enterprise is (1) an innovative entrepreneurial venture (2) with measurable social impact that is (3) sustainable and (4) replicable.

According to the Dees definition or social entrepreneurship, social enterprises adopt "a mission to create and sustain social value (not just private value)" (Dees, 1998). Social enterprises pursue a mission to generate a positive, measurable, social outcome that cannot be reduced to private benefits, such as financial returns or consumption benefits, for individuals (Dees, 1998). Although generating profit, creating wealth, and fulfilling consumer demand play a role in social enterprise activities, social entrepreneurs approach these activities as a means, rather than an end, to generating social impact. Social entrepreneurs "recognize and relentlessly pursue new opportunities to serve [their enterprise] mission" (Dees, 1998). They persistently seek their vision for change and develop strategies to support and reinforce their missions.

Innovation is at the core of social entrepreneurship. Social entrepreneurs depart from traditional thinking "engaging in a process of continuous innovation, adaptation, and learning" (Dees, 1998). Innovation may include inventing something completely new, applying an existing idea in a new situation, creatively structuring core programs, or utilizing resources in inventive ways. Continuous innovation requires mitigating risks, managing failure, and handling ambiguity. Entrepreneurs must willingly adjust their approach, when necessary, to achieve the desired social result (Dees, 1998). Dees explains that social entrepreneurs "act boldly without being limited by resources in hand" (Dees, 1998). Social entrepreneurs are not bound by traditional sector norms. They innovate to do more with less, using scarce resources efficiently and exploring various types of commercial and philanthropic funding. Entrepreneurs must organize their business models to effectively utilize resources, including technology. If necessary, enterprises must recruit, train, and motivate employees and managers in the developing world, which can vary in difficulty depending on organizational design and geographical proximity of various work places (Fisac-Garcia, 2013).

To achieve their articulated missions, social entrepreneurs work to fundamentally change the underlying causes of a social issue, rather than treat its symptoms. According to Martin and Osberg (2015), social entrepreneurship is the bottom-up market approach to disrupting unjust equilibriums in order to contribute to global sustainability and combat issues such as poverty and social exclusion, which are inextricably linked to environmental degradation and unsustainable consumption patterns. (Martin & Osberg 2015). Social entrepreneurship disrupts

a stable, yet unjust, equilibrium by shifting behaviors to intentionally create a new, stable, and more just state. To initiate an equilibrium shift, entrepreneurs must uncover and change the root of suffering, rather than solely address its symptoms. The systems change framework distinguishes Martin and Osberg's definition from other definitions of social entrepreneurship. In Chapter 6 of their book called *Getting Beyond Better,* Martin and Osberg emphasize the importance of scalable change rather than limited positive, yet local, activities. Recognizing the interconnectivity between people and social issues, social entrepreneurs will not be satisfied with local change, but rather aspire for holistic and sustained global paradigm shifts through replicable and scalable actions. In this way, social enterprepreneurs intend for their efforts to be lasting and sustainable over the long term (Dees, 1998).

Relative to top-down economic development initiatives, bottom-up initiatives directly address the needs of the poor and operate on a deep understanding of local contexts and cultures. A successful social enterprise must understand the local social contexts in which it operates in order to effectively address its intended social issue. Social entrepreneurs ensure they are creating value by establishing a sound understanding of the values and expectations of their intended beneficiaries. They must correctly assess the needs of the communities they intend to serve. An organization must define the social structures and circumstances that will give rise to what it defines as success. This requires cultural competency and a human-centered approach to problem solving and business model development. Many social enterprises target base of the pyramid (BoP) markets. In the past, traditional businesses thinking in developed market economies neglected the potential of BoP markets by relying on dominant, yet false, assumptions that the poor cannot afford products, that they do not have a use for them, or that they cannot appreciate or pay for innovations (Prahalad, 2005). Social enterprises subvert these notions by recognizing the immense revenue and growth potential in bottom of the pyramid markets, driven by their size and untapped nature. Unlike donor-driven ICT solutions, which are rarely cost-effective to addressing poverty, bottom-up initiatives, like social entrepreneurship, more effectively generating lasting, financially sustainable impact built on a deep understanding of local contexts (European Parliamentary Research Services (EPRS), 2015).

Concurrently, social entrepreneurs maintain accountability to their investors. Investors are those that invest money, time, or expertise to help them by providing attractive social and financial returns through market-like feedback mechanisms (Dees, 1998).

What is ICT?

According to the EPRS, information communication technology (ICT) refers to a large number of technologies including "hardware, software, networks, and media for the collection, storage, processing, transmission, and presentation of information (voice, data, text, and images) as well

as the related services" (EPRS, 2015). ICTs are commonly differentiated between traditional (including radio, landlines, and TV) and modern (including computers, internet, and mobile phone) technologies. This thesis will analyze the effects of modern, rather than traditional, ICTs.

Thus, unless otherwise mentioned, readers should assume that ICT refers to modern ICT. It should be noted, however, that the technologies are not completely independent due to the convergence of traditional and modern technologies. Researchers describe this phenomenon in "ICT in the developing world" explaining, "the digitization of communication and the falling costs of computing power and memory is gradually bringing old media in modern devices (e.g. a radio into a smartphone, a computer that is used as a TV)." (EPRS, 2015).

It is important to understand that ICT is a tool, rather than an inherently good or bad solution in and of itself. Thus, although historically, ICT has been used for good and bad purposes, intentional human action determines whether the use of this tool yields positive or negative, ethical or unethical, outcomes. It is human decisions that affect the good and or bad intentions of these technologies, not the technologies in and of themselves.

ICT in the Developing World

People living in BoP markets increasingly connect within technological networks through wireless mobile, internet, and personal computer (PC) integration and use them to communicate with each other and access the world around them. In the developing world, modern ICTs have experienced tremendous growth since the late 1990's, particularly due to the rapid increase to access to wireless technology and liberalization of telecommunication networks (EPRS, 2015). Increasing volume and rate of connection proves the existence of social and economic market opportunities for the implementation of ICT at the bottom of the pyramid.

Wireless Mobile

Mobile phones, ranging from basic feature phones to smartphones, have and continue to be rapidly adapted by the developing world. Many developing countries lack infrastructure for reliable fixed landline connections, and consumers adapt mobile phone technology in lieu of waiting for landline access. According to the EPRS, three quarters of all mobile phone subscriptions are in lower middle income countries (EPRS, 2015). Figure 1: from a EPRS research study, shows the growth in mobile phone subscriptions by region in 2005 and 2014. In the African and Asia & Pacific regions, where only 29% of the roads are paved and countries lack of physical infrastructure when compared to other regions, access to and use of mobile telephones have dramatically increased, exhibiting the greatest relative growth (EPRS, 2015).

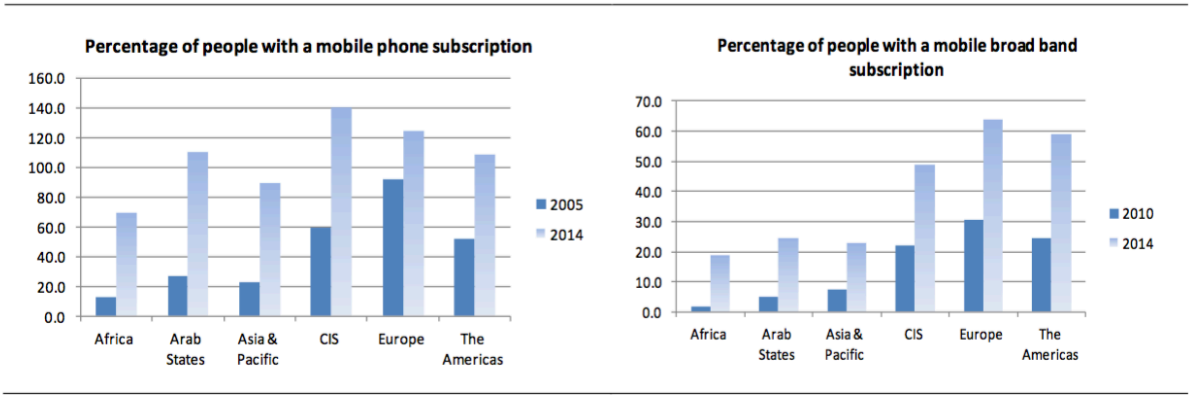

Figure 1: ICT by global geographical regions, (EPRS)

Smartphone integration in the developing world is increasing. A smartphone is a mobile phone that can access the internet or use an app, examples being iPhone, Android or Windows phone. In spring 2014, the Pew Research Center reported 24% percent of phone sales in emerging and developing markets were smartphones, meaning that despite lowering costs, smart phones were only accessible to a small portion of the developing world consumers (Pew Research Center, 2015). Yet, the Global System for Mobile Communications Association (GSMA) reported two years later in 2016 that smartphone adoption in developing markets was 47% and expected to rise to 62% by 2020 (GMSA, 2016). This increase, however, is disproportionately prevalent amongst young, urban and educated individuals (Pew Research Center, 2015).

Along with mobile calls, 76% of cell phone owners in emerging and developing markets use their cell phones to send texts, making texting the most popular non-calling feature of smart phones (Pew Research Center, 2015). A median of 55% of those in lower middle income countries use mobile phones as cameras to take pictures or videos (Pew Research Center, 2015). Additionally, wireless mobile phones are used to access more sophisticated applications enabled by increased access to broadband (EPRS, 2015). Currently, most applications of ICT in lover middle income countries are in the finance, health, and agricultural sectors (EPRS).

Although ICT reaches wealthy urban educated groups first, urban and rural poor increasingly participate and integrate into the mobile revolution. Commenting on the speedy mobile integration of developing economies in his 2005 book *The Fortune at the Bottom of the Pyramid*, Prahalad explains that moving to wireless from nothing is easier than moving from wireless from a “long-standing tradition of efficient and ubiquitous landlines” (Prahalad, 2005). In essence, BoP markets generally show more willingness to “adopt new technologies because they have nothing to forget” (Prahalad, 2005). Even some previous exposure to related

technologies does not hinder speedy integration because such exposure is usually limited and less engrained into longstanding tradition.

Speedy mobile integration is aided by ICT disseminators creation of the capacity to consume technology at the BoP. This may mean introducing the technology through an on-ground network or altering payment structure so that more users can access or consume the company's offerings. In the case of innovative purchasing schemes, increased affordability should not necessarily entail a decrease in quality or efficacy (Fisac-Garcia et al., 2013). For example, pay per minute calling cards create the capacity for users with smaller incomes and less savings to purchase and use mobile technology without experiencing diminished quality (Fisac-Garcia et al., 2013).

The poor are connected to communication networks and are able to reap benefits of mobile and, sometimes, internet interventions. However, EPRS notes that although mobile phones are now "vital instruments of the poor," they "will be less effective in moving people out of poverty" so long as their use is "limited to providing communication services" (EPRS, 2015). Evidence shows that access to mobile phone internet likely a more effective driver of socio-economic development (EPRS, 2015). The ICT landscape in developing countries is rapidly evolving to meet specific needs of local users (EPRS, 2015).

Mobile devices have enabled users to access new or existing products or services. Use of mobile device applications such as micropayments and microcredit on mobile devices is becoming increasingly popular, especially in Africa where there is limited access to physical banking channels. In developing countries, M-Pesa, offered by Safaricom and Vodaphone, enables users to make payments, transfers, and deposits through mobile phones (Fisac-Garcia et al., 2013).

Personal Computers

Due to higher accessibility cost for both suppliers and consumers, computer ownership has not experienced the rapid growth rate of mobile phone ownership in the developing world. Although, computer access has increased over the last decade, an estimated 60% of those in developing countries still lack access to the internet (statista.com, 2017). Additionally, unlike mobile phones, which have infiltrated BoP markets, computer ownership is directly correlated with income level and secondary education, meaning that BoP customers are unlikely to own or access a computer. As a result, as smartphone ownership rises, smartphones with internet capabilities and may be the most accessible way for developing world and BoP customers to access the internet.

ICT & Social Entrepreneurship

Beyond luxury or leisure, ICT applications have the potential to generate social good and ethical outcomes, creating opportunity for social entrepreneurs operating in the developing world to shape the use of this technology to serve BoP beneficiaries (Fisac-Garcia et al., 2013). To ensure ethically acceptable outcomes, social entrepreneurs are responsible for regulating participants, determining who and may access their good or service, and deciding to what extent or in what context participants will engage. Chapter 1 outlines the potential uses for ICT in social enterprises.

CHAPTER 1

Literature Review: Breadth vs. Depth framework for Scaling Potential of ICT

In "The Role of ICT in Scaling Up the Potential of Social Enterprises" Fisac-Garcia, Acevedo-Ruiz, Moreno-Romero, and Kreiner propose a depth vs. breadth framework to explore the beneficial effects of ICT to development stakeholders. The authors explain that social entrepreneurs scale their impact through two types of scaling, depth and breadth scaling. Breadth scaling increases the number of beneficiaries reached by an organization so that it can profit from the created social value. Depth scaling enhances already existing social value propositions by increasing effectiveness of existing offerings, adding additional features and benefits, or increasing operational efficiency (Fisac-Garcia et al., 2013). In a perfect world, social enterprises would be able to deeply impact a large number of beneficiaries. In practice, however, opportunity cost can lead to a tradeoff between depth and breadth scaling after a certain threshold of impact. Enterprises must decide the extent to which they are committed to a certain goal without sacrificing the overall quality of their business activities.

The authors propose ten ways in which ICT can help enterprises scale, five for depth scaling and five for breadth scaling. These applications are outlined in Figure 2.

Role of ICT in Depth Scaling	Explanation
Accurate and fast needs recognition	Speed • Recognize beneficiary/consumer needs faster to provide a quick response to problems Accuracy • Gather Big Data to accurately forecast negative effects or better understand trends/problems • Gain better insight into local markets, cultural traditions, contextual factors to better tailor products/services

Opportunities creation	Job Creation • More ICT based jobs Access to beneficiaries • Increased information & education flow to poor through online platforms dissemination
Products and services adaptation	Low Cost → Adaptability • Reduced infrastructure, manufacturing, and distribution costs make adapting technology more affordable
Inclusion and social capital creation	Inclusion to Beneficiaries • Technology can lead to greater community participation for disadvantaged • Community ownership → more effective scaling and temporal resilience
Information disclosure and fairer markets construction	Advocacy • Promote public policy • Promote culture of social entrepreneurship
Role of ICT in Breadth Scaling	Explanation
Access to new resources	Access to organizational resources • Crowdfunding • Volunteers
Synergies and networks construction	Collaboration & Communication • Improved communication with clients and customers • Increased collaboration in social impact ecosystems
Organizational efficiency	Communication • Improved communication with beneficiaries, clients, suppliers Low Cost • Labor intensive costs become free High Volume • Large amounts of small transactions possible
Improved visibility	Low cost

	Clear message • Better communication with donors, funders Viral • Messages can rapidly reach large scale audience
New access channels to beneficiaries	Access to markets Access to isolated communities

Figure 2: ICT for Depth and Breadth Scaling of Social Enterprises, adapted from "The Role of ICT in Scaling Up the Potential of Social Enterprises" by Fisac-Garcia, Acevedo-Ruiz, Moreno-Romero, and Kreiner

Although Fisac-Garcia et al. identify the technological factors that can help social enterprises improve their performance, a critical analysis of the depth vs. breadth framework they use reveals a failure to account for the key role that business model and mission play in the everyday decision making and scaling of social enterprises. While the depth vs. breadth framework is commonly used in academia to discuss scaling, the framework doesn't necessarily reflect the reality of social enterprises. This framework implies a false "either/ or" view of scaling, when, in actuality, neither depth nor breadth scaling can exclusively generate sustainable impact. Rather the two are mutually interdependent. Social enterprises make business decisions by assessing their respective needs and objectives according to their business model. Focus on the business model, ahead of ICT applications, is essential to understanding the role that technology can play in scaling and enterprises mission.

Additionally, this framework is not the most effective way to view specifically mobile ICT applications.

Proposing a "business model first" interpretive framework for understanding mobile ICT applications

Based around a more accurate reality of social enterprises, this section proposes a new interpretive framework for understanding mobile ICT that prioritizes the business model. Although much this information is embedded into what the Fisac-Garcia et al. contend in their article, it is a slightly different way to think conceptualize the impact of mobile ICT. This model separates mobile ICT applications based on functions that improve operational efficiency and functions that scale beneficiary engagement. Using mobile ICT to increase beneficiary access and engagement changes industry norms by redefining traditional market connections and integrating marginalized populations. This use is where mobile ICT has the greatest potential as a transformational tool for development and poverty reduction.

Operational Efficiency

Social enterprises evidently have an ally in mobile ICT as a tool to improve operational efficiency. Any type of social enterprise, or business for that matter, can utilize mobile ICT as a tool to increase their output (whether it be product, service, or actions) while reducing costs (time, money).

Decreased Costs

Mobile ICT enabled infrastructure reduces, or even eliminates, the need for inventory, physical infrastructure, or physical assets, thereby reducing fixed costs. Technology also allows for decreased transaction, distribution, and creation costs, which reduce marginal costs (Van Alstyne and Parker). Through the use of ICT, labor and time intensive tasks can become near free.

Although almost any digital business can realize these types of reduced costs, platform businesses in particular exhibit potential to exponentially scale as a result of low cost of creation. Cost of creation refers to the cost of increasing new users. For example, a traditional hotel would need to build more rooms and hire additional service employees to increase its capacity, increasing both its fixed and marginal costs. In comparison, a platform company, such as Airbnb, could increase capacity with near-zero marginal costs (Van Alstyne and Parker, 2017). Amplified by network effects, these lower cost potentials represent a major scaling opportunity.

Increased Volume

Through technology, large amounts of small transactions become possible. At low cost, these increases in transactions make increase a company's efficiency by increasing outputs of products or services.

Increased Quality

In addition, mobile ICT leads to faster and clearer communication with beneficiaries, clients, suppliers, investors, and stakeholders, meaning that quality or efficacy is not necessarily reduced with increase in scale.

Increasing operational efficiencies in these ways, however, does not lend itself directly to poverty reduction. It is important to note that these benefits can be realized by any business using mobile ICT and are not particularly unique to social enterprises and their missions.

Increasing Consumer Engagement or Access

As succinctly stated by Fisac-Garcia et al.,"lack of access to credit, basic services, healthcare, and information are some of the main causes of exclusion and persistent poverty in the developing world" (Fisac-Garcia et al., 2013). Thus, the greatest potential for mobile ICT in reducing poverty in the developing world is using it to increase access and consumer

engagement at the bottom of the pyramid. Mobile ICT enabled enterprises, particularly those capitalizing on mobile phone access and use to intervene in health, education, agriculture, or microfinance can directly impact, or even transform, life for people at the bottom of the income pyramid. These applications directly impact the poor by providing previously unavailable goods or services through the creation of new, potentially bi-directional, channels of access. Whereas previously access to rural or last-mile communities was considered too expensive or difficult, affordable ICT in the form of mobile technology is generating systematic change in traditional interactions between businesses and beneficiaries.

ICT has the greatest potential to alleviate poverty in the developing world when used to create systematic change through customer engagement and inclusion. This type of change, rather than operational efficiency, is at the center of the definition of social entrepreneurship and the way that its impact is measured. Enterprises can capitalize on ICT innovation and technology to facilitate equilibrium shifts by initiating innovative communication patterns and information gathering techniques, and facilitating new access to markets and people.

Providing Beneficiaries with Increased Access to Information

Mobile technologies are an inexpensive way to collect and disseminate unbiased information from to and from grassroots beneficiaries. Information access to previously unreachable communities in urban and rural areas creates opportunity for change because it integrates marginalized and often isolated populations. Some organizations, provide technology to other socially oriented businesses using a business to business model. For example, Awaaz.De provides voice, SMS text, mobile apps, and web content to businesses working across the education, agriculture, health, and financial services sectors, and EngageSPARK, specifically focuses on automated calls and 2-way SMS technologies. In a more direct business to beneficiary model, social enterprises provide healthcare, agriculture and education information. In Myanmar, Koe Koe Tech provides doctors, midwives, and mothers with access to maternal and child health information and telemedicine services provided through an application, called Maymay. In Ghana, Farmerline disseminates information to smallholder farmers regarding agricultural systems, supply chains, and markets. Though most applications provide information regarding finance and health, there is opportunity to develop mobile learning units to provide technical education through downloadable mobile learning modules.

Financial Market Inclusion through Microfinance

Mobile banking redefines financial market connections by enabling micropayments and microcredits in areas lacking physical channels. Users can payments, transfers, or deposits by using their phone as an electronic wallet (EPRS, 2015). Access to financial services allows BoP users excluded from the traditional banking system to save money,

which provides families with added security and assists with long-term purchasing. Additionally, for those who have limited access to traditional banking due to geographical distance to physical infrastructure, mobile money offers a more convenient option. With millions of users across Africa, M-Pesa, offered by Safaricom and Vodafone, is the most successful mobile money and mobile insurance provider in the developing world (EPRS, 2015).

CHAPTER 2: DATA

Case Study Method

There is no standard methodology for assessing the impact of mobile ICT on reducing poverty or improving quality of life for the poor. However, using case studies has emerged as viable method of tracking progress and communicating value. This methodology is the "most widely used" approach "to understand the linkages between ICT and poverty" (EPRS, 2015). Case studies identified in this section will illustrate the successful application of mobile technology in transforming the lives of the poor through increased participation and benefit from mobile ICT. Using an actual cohort, where multiple business models are taking advantage of mobile ICT, this study will test the effectiveness of the GSBI accelerator through the lens of the proposed conceptual framework.

About GSBI Accelerator

The Global Social Benefit Institute (GSBI) is the Miller Center for Social Entrepreneurship's social enterprise accelerator that facilitates social change by scaling the missions of participating enterprise organizations. Miller Center's mission is to end poverty and protect the planet by supporting organizations that combat poverty and social exclusion, which are inextricably linked to environmental degradation. GSBI selects social enterprises, whose primary mission is delivering goods and services to beneficiaries in need, to participate in its accelerator programs. (See Appendix C for a description of GSBI's selection procedure). GSBI selects the highest potential candidates to participate in its programs, which include an online accelerator, in-residence accelerator, and BOOST program. To date, the GSBI capacity building has impacted over 800 enterprises, working across a wide range of sectors and geographical locations. GSBI uses a business model centric approach to help enterprises scale their mission and leverages the knowledge and skillset of Silicon Valley mentors. Silicon Valley is an innovative hub for both entrepreneurial business models and technology, making it the ideal location for the accelerator.

Measuring Social Impact

Social impact can be defined in a simplistic way using the following equation:

Social impact = value proposition*number of beneficiaries

Value proposition refers to opportunities creation, adaption, needs recognition, fairer market building, inclusion and social capital recognition. Number of beneficiaries can be increased by new channels to beneficiaries, synergies and network creation, access to new resources, increased visibility and organizational efficiency (Fisac-Garcia et al., 2013).

The success of enterprises is interpreted by specific applications of their business models to address meaningful social problems. Unlike traditional businesses that rely on standardized assessments like return on investment (ROI), profit margins, and revenue, additional key performance indicators (KPI's) are set by the individual enterprises. Understanding the impact a firm has on its beneficiaries is critical to improving or expanding its impact. Impact can be quantitatively or qualitatively measured in units determined by the enterprise and is a considerable task, which is subject to multiple challenges including:

Incomparability
Impact units can be incomparable across businesses, making impact assessment challenging in the social enterprise sector. Because of this, enterprises must be ready to support and explain their impact performance indicators in order to communicate the reach and thoroughness of their work. Ability to communicate indicators is critical when obtaining investment (Fisac-Garcia et al., 2013).

Multi-causality Effect
Another complication in social impact assessment is the multi-causality effect, where improvements can result from various direct and indirect factors, making it difficult to attribute certain advancements to specific interventions (Ramon). A firm must consider its internal operations in relationship to its direct beneficiaries as well as the external in which it operates. In some sectors, a firm's outputs may be independently linked to its impact, resulting clear causality. For example, people and communities served by one social enterprise are likely to receive services by other means, sometimes referred to as attribution error. In others, outputs occur alongside existing political, legal, sociocultural, economic, ecological, or technological factors, resulting in multi-causality (Fisac-Garcia et al., 2013).

Temporality of Impact
Time varies between the actual interaction between the enterprise and beneficiary and meaningful impact realized. For example, impact may directly and immediately link to an enterprises outputs. in the case of information disseminated, healthcare services

delivered, or products sold, immediate impact is realized. However, impact may also occur many months, years, or even decades after firm beneficiary contact. In these cases, impact is difficult and even impossible to measure (Fisac-Garcia et al., 2013).
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Cost of Impact Assessment

Effective impact assessment is costly to develop. Determining the most efficient ways to disseminate and collect impact information takes considerable thought and understanding of beneficiaries. Additionally, implementing the assessment method is potentially costly, labor intensive, and time consuming for the firm. Firms must weigh the benefits of impact assessment with the effort, cost, and bureaucracy of impact assessment to make decisions in its best interest (Fisac-Garcia et al., 2013).

Measuring GSBI's Impact

It is important to understand the Miller Center indirectly effects marginalized beneficiaries through social enterprise acceleration. As such, its success is determined by the extent to which it helps program participants to scale their missions and reach their goals. Using "lives impacted" as a primary indicator, this study evaluates the scaling potential of ICT enabled social enterprises compared to other non-ICT enabled enterprises to test the effectiveness of GSBI on ICT enabled enterprises. For analysis, the selected data sample is the 2016 GSBI cohort.

Graphing lives impacted before, during, and after the accelerator will exhibit whether the accelerator program helped the enterprises to scale their impact and reach their goals. Because impact numbers are reported within one year of GSBI participation, it can be reasonably assumed that participation in the accelerator program contributed to the reported outcome.

A Purposeful Sample Study - 2016 GSBI Accelerator Cohort

By selecting an individual cohort, the GSBI 2016 in-residence cohort, this study reduces the statistical population to a manageable and comparable size for analysis. By isolating a recent cohort, this study attempts to factor out other influencing factors and measure the direct impact the GSBI accelerator has on its participants. Additionally, by using enterprises chosen by the GSBI selection staff, the study ensures that businesses analyzed already have socially oriented missions to end poverty and protect the planet. A more thorough explanation of the GSBI selection process can be found in Appendix C.

The 2016 GSBI cohort consisted of 14 social enterprises working in the agricultural, health, artisan, education, water, and clean energy sectors and impacting beneficiaries in North America, Africa, and Asia. Brief descriptions of each, provided by the Miller Center for Entrepreneurship Alumni Database, can be found in appendix A.

The specific goals for the 2016 GSBI cohort were to select 18-20 established social enterprises with scalable models that serve people living in poverty. Of the 343 applications started, 240 were completed. Of 41 semifinalists, 20 finalists were selected for the accelerator program. The GSBI selection procedure (Appendix C) was utilized, with no specific preference given to mobile ICT enabled business.

As shown in Figure 3, of the fourteen participants, five were ICT enabled and nine were not. More specific descriptions of each enterprise can be found in Appendix A. More specific 2016 accelerator cohort characteristics can be found in Figure Appendix B.

ICT Enabled	Not ICT Enabled
Awaaz.De CareNX Innovations EngageSPARK Farmerline Ltd. Koe Koe Tech	Alashanek ya Balady Association for Sustainable Development (AYB-SD) All Across Africa Cantaro Azul Livelihoods National Union of Coffee Agribusinesses and Farm Enterprises (NUCAFE) Noora Health Pollinate Energy Solubrite Vava Coffee

Figure 3: 2016 GSBI Accelerator Program Participants, Global Social Benefit Institute

Although in previous years, GSBI exclusively admitted enterprises that directly work with the poor, the 2016 GSBI cohort included enterprises serving other social enterprises or NGOs through ICT enabled technologies. Awaaz.De and EngageSPARK have B2B models, while Farmerline has both B2B and business to farmer (B2F) models. In the previous framework, the thinking was that because GSBI is already an intermediary, indirect models would prove unsuccessful. However, considering the scaling potential of mobile ICT enabled B2B models, which coincide with the maturing nature of the social enterprise ecosystem, these businesses were selected for participation.

Hypothesis

GSBI can provide ICT enabled enterprises with the tools to scale their impact and meet their goals because GSBI is positioned to leverage the technological and entrepreneurial innovation in the Silicon Valley. As a result of its location and business model-centric methodology, GSBI mentors effectively understand the dynamic relationship between ICT and business models.

This is particularly important for scaling enterprises that utilize ICT to reduce exclusion of marginalized populations by increasing consumer engagement and access. GSBI's success in helping these types of businesses should be indicated by an increase in the rate of lives impacted post accelerator.

Data

Using lives impacted as evidence of scaling, enterprise reported values were plotted over time for analysis. ICT enabled enterprises are indicated by a solid line, while other types of enterprises are indicated with a dotted line.

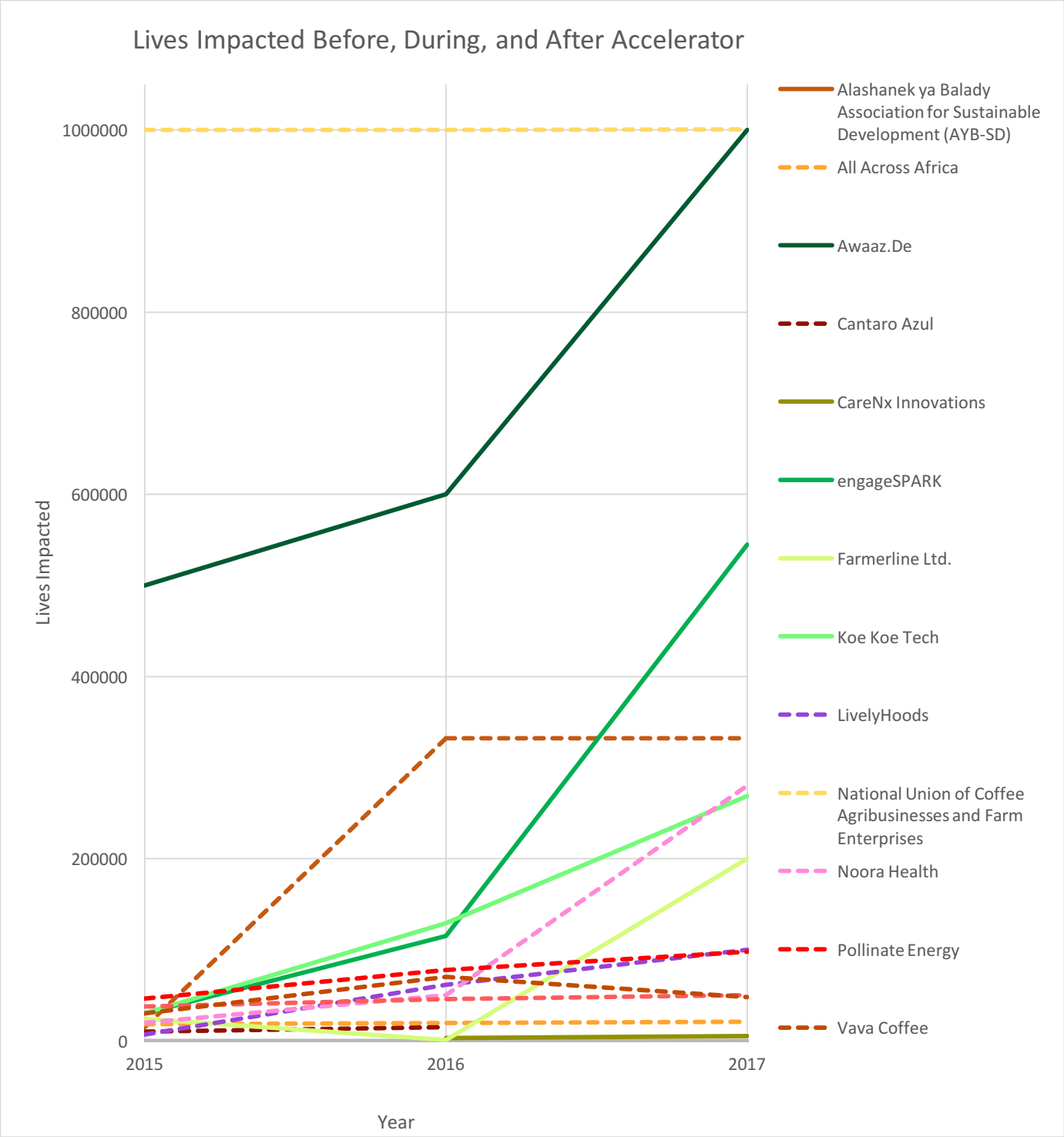


Figure 4: 2016 GSBI cohort Lives Impacted Data, Data from GSBI

The data shows that mobile ICT enabled businesses increased lives impacted after the accelerator program. Four of the five mobile ICT enabled enterprises exhibit the reverse-L shape trend. In three of those enterprises, Awaaz.de, Farmerline, and EngageSPARK, this L

shape is clearly defined, whereas it is less defined for Koe Koe Tech. For CareNX, there is not enough data to deter whether there would be a reverse-L line. However, if there were a slight reverse-L shape, it would likely be subtle or unrecognizable.

The reverse-L shape curves indicate that, post accelerator, GSBI accelerated ICT enabled enterprises' impact by increasing rate of growth of lives impacted. This suggests that the accelerator program was effective for these organizations and helped them to reach their goals.

Implications

As shown by "lives impacted" metrics, GSBI effectively accelerated ICT enabled enterprises. This is for a variety of reasons. Firstly, Silicon Valley is a unique location from which to operate. As a hub for innovative technology and innovative entrepreneurship, the valley provides a wealth of knowledge and resources to leverage.

Secondly, GSBI prioritizes the business models of the social enterprises they accelerate. The case study reveals the impracticality of the framework initially proposed by Fisac-Garcia et al. due to its failure to reflect real life thoughts, actions, or decisions that social entrepreneurs experience. Instead, the enterprises' business model should be paramount when considering the potential of ICT to scale its mission.

Thirdly, the accelerator further increases effectiveness by achieving overlapping efficiencies through synergistic cohort learning groups. In doing so, it effectually utilizes the knowledge, resources, and capabilities of mentors to the fullest. The businesses were able to receive support and feedback on their impact and business models in the same group environment, enabling them to learn from their peers' feedback as well. When using change in lives impacted as an indicator of success, it the accelerator better positioned ICT enabled enterprises to succeed. However, it is uncertain to what degree the increase in lives impacted resulted from the scaling potential of the technology platforms themselves, particularly B2B models.

Combined with the leveraged experiences and capabilities of GSBI mentors as well as the synergistic efficiencies of grouping these businesses together during the accelerator, ICT enabled enterprises proved to be successful candidates. Lives impacted significantly increased for Awaaz.de, Farmerline, and EngageSPARK, which all used B2B or partnership models to disseminate their technologies to other organizations or causes. In comparison, Koe Koe Tech only used its platform to engage directly with its beneficiaries and did not follow this type of business model. The lack of a significant increase post accelerator for CareNX could be due to the fact that it does not integrate ICT at all levels of its business model, but rather uses ICT in the form of a mobile app to support some of its business functions.

Because ICT businesses, especially those with B2B models, tend to be more indirect and breadth driven methods of impact, lives impacted may naturally be greater for ICT enabled companies. Other metrics, including percentage change in revenue generated, investment generated, and # of employees may be used to provide additional comparable metrics that indicate the extent to which the GSBI Accelerator helps ICT enterprises meet their goals. Collecting more consistent data for other indicators of enterprise success to measure the accelerator effectiveness may help GSBI to make informed decisions about cohort selection and even which program types to continue pursuing. Understanding the implications of this data could open up analysis for deeper comparability across ICT vs. non-ICT enabled businesses. The current GSBI database does not include enough data to make any conclusions about growth in these areas for the 2016 cohort. Due to lack of data this analysis is, therefore, beyond the scope of this study.

Despite this evidence of scaling through lives impacted, there are also other qualitative metrics the organization should consider with regards to impact. While "lives impacted" is a key performance indicator summation for quantity, it does not reflect quality of impact or more detailed, nuanced efforts of enterprises. Quantifying and articulating depth of impact is expensive and relies generally on qualitative storytelling that shows how enterprises have improved since the accelerator program.

CHAPTER 3: FUTURE PROSPECTS & CONCLUSIONS

Future Prospects of Mobile ICT in the Social Enterprise Ecosystem

Access to the internet and mobile apps will transform the way social enterprises engage with BoP beneficiaries, presenting new opportunities and challenges for social enterprises. As smartphones become increasingly pervasive in developing world markets, mobile ICT enabled social enterprises must understand how this phenomenon affects their beneficiaries. If the speedy growth of feature phone mobile integration in BoP markets in the past 10 years is any indicator of future smartphone uptake, social enterprises must prepare to adjust and adapt with dynamic changes in technology and industry norms to generate lasting impact. As such, social enterprises will need to continuously innovate and understand the cultures, needs, and capabilities of their beneficiaries through human centered approaches. Realizing the potential of Mobile ICT embedded social enterprise business models requires the continuous innovation, mission driven decision making, heightened accountability, and resourcefulness of social entrepreneurs, as described by Dees.

Continuing the Acceleration of Mobile ICT Enabled Social Enterprises: GSBI-specific Recommendations

As the number of social enterprises increases, a larger quantity of enterprises will likely apply for the GSBI accelerator program. An increase in the number of *qualified* enterprises that apply is also possible. Reaching the impact, maturity, and scalability requirements of the accelerator will still require considerable preparation, skill, and execution. However, additional support for early stage enterprises in the current social enterprise ecosystem may result in a larger number of enterprises reaching this phase. To date, accelerator cohorts have been chosen without much need to think about the cohort as a whole because less than 20 candidates usually qualify for the individual enterprise goals. In the future, if the number of qualified enterprises grow, the center will need to develop strategies that balance the types of enterprises within the cohort, considering factors such as the potential for the enterprise to leverage accelerator resources to scale and meet goal, which can be evaluated by metrics including but not limited to the ones explored in this study. As the social entrepreneurship landscape changes, the Miller Center may consider collecting more data to better understand its impact on its enterprise participants. Collecting data points not currently available to the center including change in revenue before, during, and after the accelerator, investment generated within a year after participation, and growth of number of paid employees. Additionally, the center should continue its collection of qualitative metrics that measure participant satisfaction because these metrics remain reliable indicators of the quality of participant experiences.

An enterprise in the 2018 accelerator cohort, Taro Works, works uses CRM and a mobile app to help enterprises collect field data and impact metrics, without having direct contact with the poor. Accepting Taro Works indicates GSBI's continued willingness to work with B2B model businesses. It is possible that the center should create a framework for deciding to what extent. According to Cassandra Staff, GSBI must maintain its focus on providing value to the poor, while considering the extent to which it believes that accelerating enterprises without direct beneficiary contact will result in meaningful impact.

Conclusion #1: Mobile ICT has the greatest potential to reduce poverty in the developing world when used to increase access, reach, and consumer engagement.

Substantial evidence reveals the pervasiveness of mobile ICT in the developing world and suggests future potential for further mobile ICT integration in BoP markets. For social enterprises that use ICT to reach and engage with end beneficiaries, mobile ICT is the most promising form of technology due to its geographic reach and widespread use. However, widespread use and implementation do not necessarily imply poverty reduction through socioeconomic inclusion, and arbitrary applications of ICT are insufficient means of achieving social impact. Social enterprises must intentionally apply mobile ICT in the context of an innovative business model centered around increasing access and inclusion for the marginalized.

Increased inclusion for the marginalized and disadvantaged through the use of technology is essential to generating social change through poverty reduction.

Mobile ICT can support social enterprises, which pursue initiatives that reduce poverty and exclusion in the developing world, to achieve greater impact by increasing operational efficiency and accessibility to beneficiaries. Although most business use ICT to some extent, those who place it at the core of their business model as a major part of fulfilling their mission do so with the intent of increasing beneficiary access. Embedding improvements in accessibility in the enterprises' business model, shows the most promise for combating poverty in the developing world. Therefore, mobile ICT enabled social enterprises must understand the dynamic interaction between the business model and the technology to best serve beneficiaries and scale. Institutional support helps ICT enabled social enterprises to grow this understanding and scale their missions by fostering a supportive and informed mentorship environment.

Conclusion #2: Acceleration programs support Mobile ICT enabled social enterprises on a path towards scaling

By participating in accelerator programs, such as GSBI, mobile ICT enabled social enterprises realize scaling potential of their innovative business models. Illustrated by a purposeful case study, resources provided by the Miller Center for Social Entrepreneurship's accelerator program position mobile ICT enabled social enterprises to effectively scale and generate large lives impacted numbers. As evidenced by the case study, specifically targeting enterprises that use Mobile ICT in the context of innovative business models that are centered first around serving the poor (regardless of individual depth or breadth preferences) the accelerator program is better positioned to help these businesses over other non-ICT enabled enterprises. Currently, the types of enterprises best suited to generate meaningful and measurable impact are those that utilize mobile ICT to increase accessibility to beneficiaries. As done in the GSBI selection process. These enterprises are best identified by evaluating their business models.

Conclusion #3: Further Mobile ICT research is necessary as smartphone integration increases.

Further research is needed across social enterprise sectors to monitor the mobile integration of internet access and smartphone applications. Specifically, health, educational, agricultural, and financial social enterprises must research, understand and ideate the potential for ICT in their respective sectors. Additionally, accelerator programs, like GSBI should understand and track this progress to continue effective acceleration of accelerator participants.

Appendix A

Company	Area(s) of Impact	ICT?
Alashanek ya Balady Association for Sustainable Development (AYB-SD)	Egypt	No
The organization is serving young people from 21 to 35 years old with limited access to capacity development programs and/or economic opportunities through interpersonal and technical trainings, coaching and mentoring sessions, job-matching services, and financing mechanisms. The attention is given to young people from underprivileged families living in poor districts, while job seekers are provided with wage-employment opportunities, and entrepreneurs are offered support to start their micro- and small- businesses to become self-employed. The model is based on improving employability skills and provides market access that increases and stabilizes income.		
All Across Africa	Rwanda, Uganda, Burundi, Kenya	No
All Across Africa (AAA or ?the Company?) is an innovative company that designs and produces distinctive handmade products for the US home decor and jewelry markets, while creating crucial employment across rural regions of Africa. The Company has built a sustainable and scalable workforce of artisans in rural Africa by establishing a large cottage industry that utilizes a cooperative governing structure and local leadership, while controlling the entire value chain. All Across Africa has implemented an innovative model that combines trending design with traditional African artisan techniques and patterns, allowing for truly unique and quality product lines. The Company's tiered collections create the flexibility and freedom to offer a range of products and price points a diverse customer base, ranging from more than 200 boutiques across the company to retailers like TJ Max, Costco, and Ethan Allen.		
Awaaz.de	India, Bangaldesh, China, Mexico, Brazil Ethiopia	Yes
Last-mile communication is a big challenge for organizations across sectors who need to effectively disseminate, collect, and analyze information from low-income or rural populations at scale. Awaaz.De's easy-to-use, communication and data collection tools cut across language, literacy, and connectivity barriers through innovative, customizable voice and mobile-based content. Awaaz.De develops solutions (with capabilities spanning IVR, SMS, mobile apps and web) for organizations across multiple sectors: education, agriculture, health, and financial services. We have hundreds of clients, including microfinance institutions, social enterprises, non-profits, and research institutions.		
Centaro Azul	Mexico	No

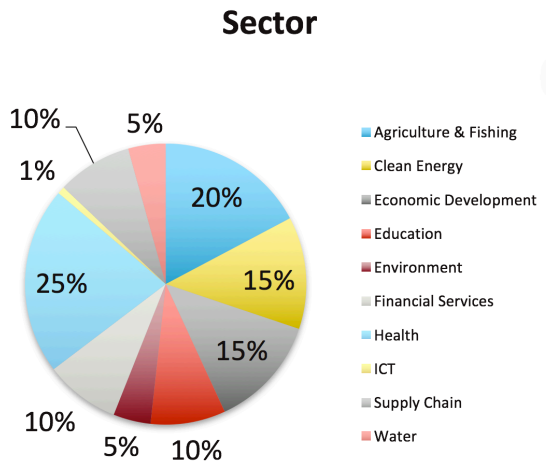
Cantaro Azul works in rural and semi-urban communities in Mexico, where there is lack of affordable access to safe drinking water due to high monetary and labor costs. After 10 years of successful experience as a non-profit organization bringing safe water to more than 100 marginalized communities across Mexico, Cantaro Azul is now looking to operate its social-franchise model as a for-pro t enterprise to serve its target market in both rural and urban areas. With easily adaptable technological solutions, we developed small water purification and distribution businesses operated by entrepreneurial women. Based on a franchise model, women use our technology and brand to produce and distribute 20-liter water containers at a selling price of $0.40 USD, 20-45 percent lower than the price of commercial vendors. As the franchisor, Cantaro Azul receives a monthly franchise fee, which comprises a fixed payment for the use of the licensed brand and technological know-how, and a variable fee as a share of the water business sales in order to cover our operating expenses.		
CareNX Innovations	India	Yes?
CareNx offers a pregnancy care solution, the CareMother, which consists of a portable kit with medical devices connected through a mobile app. Our target customers are rural private hospitals, government hospitals, and health-care agencies working with government in India. We offer CareMother at a fixed price, and our recurring revenue comes from at-door tests offered during the nine months of pregnancy. CareMother enables customers to increase their patient outreach through health-workers at 50 percent lower cost compared to existing mobile health vans. Furthermore, it has improved efficiency and social recognition for health workers. A feature of "Early detection of high-risk Pregnancy" in our app help doctors early intervene and reduce the health complications for mothers.		
engageSPARK	Africa, Asia, Latin America	Yes
EngageSPARK empowers organizations to build automated calls (IVR) and 2-way SMS programs to engage the poor in developing countries. We are democratizing this technology to empower IT & non-IT staff at any size non-governmental organization to maximize their impact by interacting with anyone who has access to a mobile phone. Automated calls (IVR) and 2-way SMS are the most efficient, scalable, and affordable means for Non-Governmental Organizations to interact with their beneficiaries and staff, and impactful programs can be built in minutes. engageSPARK has integrated with telecoms worldwide to send and receive in any of 200+ countries. Our pricing model is disruptive, as it's the only one in the market that is solely usage based and fully inclusive of telco fees, but without contracts, implementation fees, or subscription plans-making it affordable for any size NGO anywhere.		
Farmerline	Ghana, Sierra Leone, Cameroon, Malawi, Nigeria	Yes
Farmerline is a for-profit Ghanaian company that, over the past three years, has built a social business, software technology, and partnership network that has reached over 200,000 farmers in five countries. Our mission is to transform millions of farmers into empowered entrepreneurs. To do this, Farmerline creates technologies that collect and disseminate profit- generating content to farmers' fingertips, and that help modernize the agricultural systems, supply chains, and markets around them.		
Koe Koe Tech	Myanmar	Yes
Koe Koe Tech is a Yangon-based health IT social enterprise that has created maymay, a maternal and child health app that aims to reduce maternal and under-5 mortality rates in Myanmar, by providing access to quality maternal and health information and telemedicine with doctors and midwives. The maymay app provides (1) gamified, informational messages timed to the week of user's pregnancy or the age of the user's child; (2) a doctor lookup where users will be able to search 10,000+ Myanmar doctors by specialty and location; and (3) telemedicine enabling users to speak and text with Population Services International (PSI) doctors and nurses.		
National Union of Coffee Agribusinesses and Farm Enterprises	Uganda, Kenya, Burundi, Rwanda, Tanzania	No

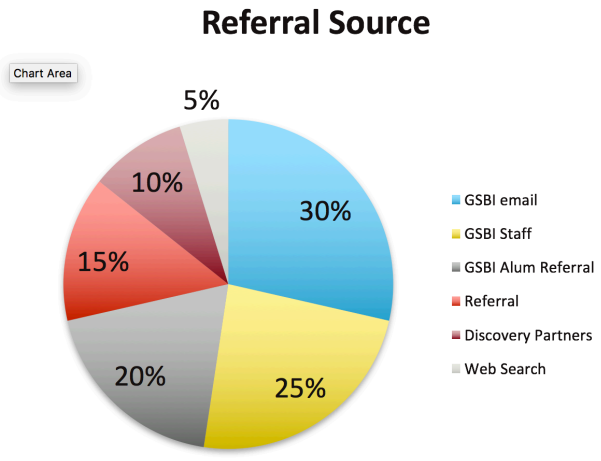
The National Union of Coffee agribusinesses and farm Enterprises (NUCAFE) is an umbrella of national coffee farmers? organizations founded in 1995 as a limited company by guarantee without share capital. NUCAFE has grown and evolved as a vibrant private- sector-led farmer organization formed to serve and position farmers well in the liberalized coffee value chain in Uganda. We operate a globally proven business model, the Farmer Ownership Model that enables coffee-farming families for the first time to own a valuable form of value-added coffee that improves their household incomes by over 30 percent per kg.		
Noora Health	Uganda, Kenya, Burundi, Rwanda, Tanzania	No
At Noora Health, our mission is to improve health outcomes for marginalized people. We achieve this by engaging patient families in the care of their loved ones. We turn hospital hallways and waiting rooms into classrooms where we train families with high-impact, hands-on health skills to improve outcomes and save lives. In doing so, we enable family members to provide care in the hospital and at home. We tap into an available, highly compassionate, and willing resource, the family member. After training for recovery care in hospitals, families return home with confidence. As a result, we reduce return hospital visits by 24 percent, lower the incidence of preventable complications, and replace anxiety with confidence for the caregiver, resulting in a six times reduction in anxiety.		
Pollinate Energy	India	No
Pollinate Energy trains and empowers local entrepreneurs to establish sustainable micro-businesses that provide life-changing products-like solar lights, water filters, and solar fans-to India's urban slums. This provides employment opportunities for locals, while improving quality of life in slum communities. We offer payment plans to make our products affordable for our customers, and our default rate on these plans is less than 1 percent. Our Pollinators also provide post-sale servicing and support to ensure that our products are used on a long-term basis.		
Solubrite	Panama, Nicaragua	No
Founded in 2013, Solubrite is a social enterprise dedicated to provide clean, affordable solar energy to over seven million individuals living without electricity in Central America. We have offices in Panama and Nicaragua. Our focus is in last-mile sales, finance, marketing, distribution, and customer service. Solubrite offers low-income rural families in Central America a clean and affordable solar energy solution. Through an ecosystem of regional branches, local sales agents, and community entrepreneurs, Solubrite sells Pay As You Go (PayG) enabled solar home systems in a lease-to-own fashion. This model allows rural, off-grid families the ability to purchase solar energy in a manner that best fits their irregular income, paying in small incremental top ups until they own the product.		
Vava Coffee	Kenya	No
Vava Coffee is a group of passionate individuals and farmers working towards one goal: using coffee to empower communities. In 2009, Vava Coffee was started as a social enterprise whose main aim was to contribute to better future prospects for local communities and the coffee industry as a whole. The company ensures sustainable livelihoods for the people and communities in which it works. Rather than give handouts, Vava Coffee gives hope for a better tomorrow to those it works with as well as their families by giving them a chance to earn a living and get out of poverty by engaging them in work activities they are skilled in performing. Vava Coffee not only works with smallholder farmers in different coffee-growing regions within Kenya but also has its coffee gift bags made by groups of women in the informal settlements surrounding Kenya's capital, Nairobi.		
LivelyHoods	Kenya	No

LivelyHoods trains and employs youth and women in Kenyan slums to sell products like clean-burning cook stoves and solar lamps, door-to- door in their own communities. We use a hub-and-spoke distribution model, with branches in slum communities that serve as training centers and inventory stock points for our sales agents. This is complemented by a daily consignment model, which ensures that our sales agents do not go into debt or risk their own limited capital but can earn an income and gain valuable work experience. Our customers value the convenience of our sales channel, the cost-savings and health benefits of our products, and the after-sales service provided by our agents and branches. Suppliers value the access to hard-to-reach slum markets that our distribution channel creates for their products.

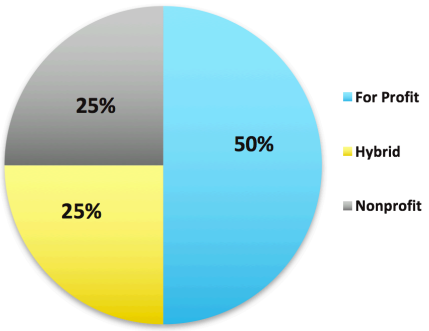
Appendix B

2016 Cohort Characteristics

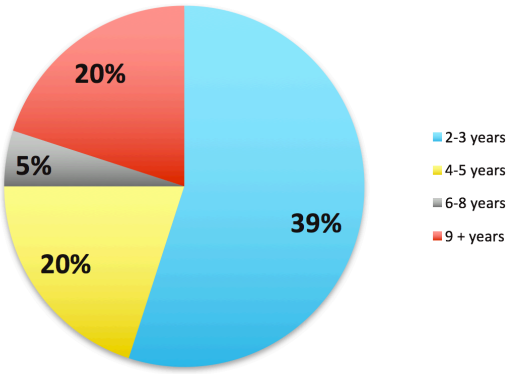




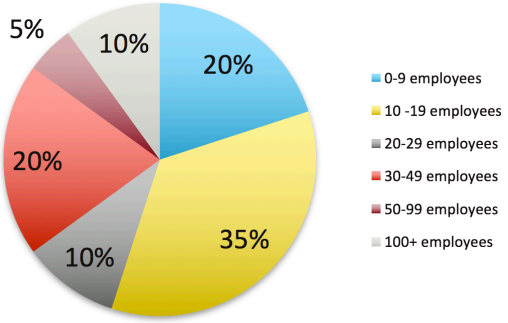
Form of Organization



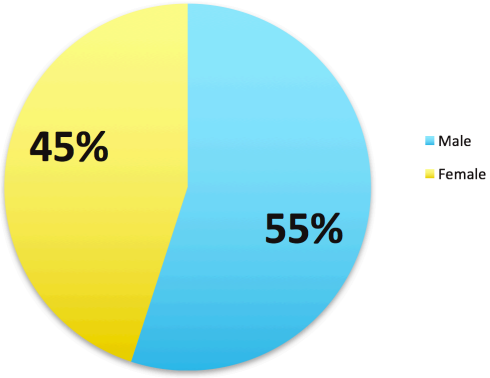
Years in Operation



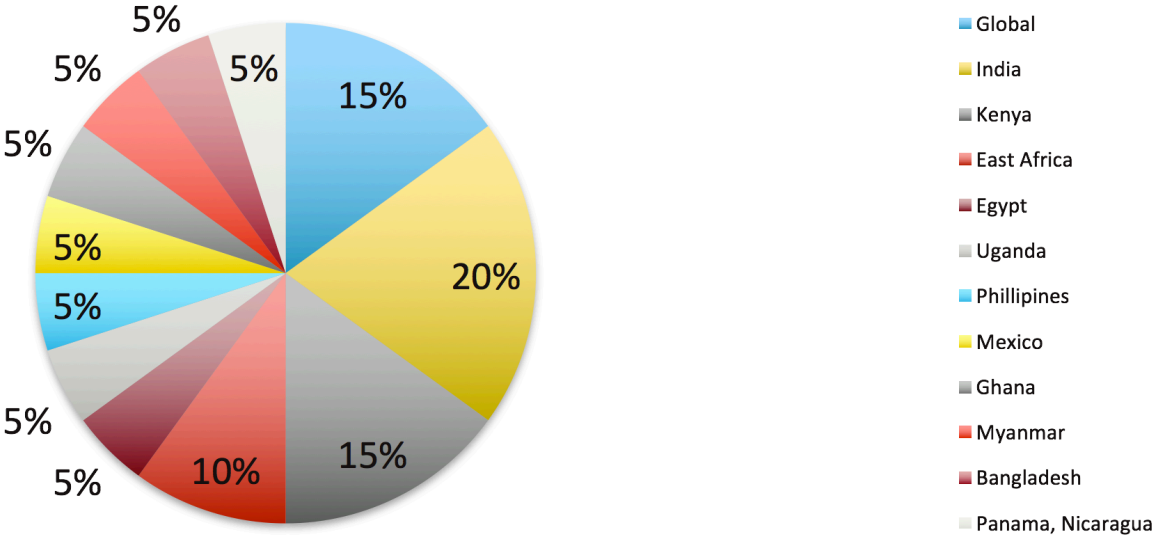
Staff Size



Gender Distribution



Region of Impact



Appendix C
GSBI Accelerator Candidate Selection Procedure

GSBI's social enterprise selection methodology, in addition to its stage specific programs and executive level mentoring, is a key aspect of its operations. There is no predetermined "target" for a cohort as a whole as far as breadth or depth of impact, region of impact, or sector. Instead, each enterprise is individually evaluated and scored based on predetermined selection criteria.

Although there are no particular requirements for an accelerator cohort as a whole, the Miller Center has for the past 3-4 years articulated two overarching goals – women rising and climate resilience – that have acted as "strategic focus areas" for selection. That is, all other things equal, female led enterprises, enterprises contributing to women's economic empowerment, or enterprises that contribute to climate resilience will take precedence over organizations that do not engage with any of those initiatives. According to Cassandra Staff, Chief Operating Officer of the Miller Center for Social Entrepreneurship, articulating these strategic focus criteria have not operationally changed the center's selection process, as most of its selected candidates were already doing these types of activities. Rather, formalization of strategic initiatives resulted in more clear communication of Miller Center's values and goals.

At the application submission deadline, program staff read completed applications and track results on a spreadsheet using simple scoring on a scale of 1-3, where 1 is a "definite yes", 2 is a "let's discuss", 3 "definite no". To gain overlapping efficiencies, qualified candidates for both the in-residence and online accelerator are selected during this process.

Selection committees initially evaluate companies on three qualifying factors: impact, maturity, and scalability. Impact qualification considers whether the company's mission is to serve the poor, based on its business model and activities. Organizations that do have other priorities, for

example organizations with completely environmentally oriented objectives, are not considered a right fit for GSBI programs. Maturity is further differentiated on the company's stage of development, early, mid, or later stage. Mid-stage organizations may be selected for the online accelerator, while only later stage organizations qualify for the in-residence accelerator. Lastly, scaling potential is determined based on high evidence, some evidence, and no evidence of scaling. Enterprises that show little to no potential to scale, service based organizations that rely completely on the goodwill of local volunteers or expensive yet low ROI inputs for example, will not qualify.

Program	Offerings	Enterprise Characteristics *Impact, Maturity, Scalability*
In-residence	10 day boot camp 10 month mentorship 11	High potential scaling candidates In business for 5+ years.
Online	6 month online program	Some evidence of scaling potential and social impact In business for 1-5 years
BOOST	3 day workshop	Local, early stage enterprises

Figure __: GSBI Accelerator Programs

After the initial screening, candidates selected to move forward will participate in a 15-minute phone call with a program staff member. During this call, a program staff member verifies information on the application. This includes financial statement clarification or verification. An enterprises' cash on hand should be enough to operate for at least 6 months so that entrepreneurs will be able to prioritize GSBI over immediate fundraising needs. Additionally, the 15-minute screening is used to ensure that the applicant is the CEO or the founder of the enterprise, rather than another employee or volunteer acting on their person's behalf. This is to ensure the motivations for enterprise participation directly align with the resources GSBI is able to provide.

After the 15-minute phone call, semi-finalists move on to a 30-minute interview call with a panel of judges that include program staff as well as GSBI mentors. Panelists rank enterprises using a score card, assigning relative numeric values to evaluate the enterprises on 7 criteria:

1. Depth of Social Impact
2. Viable business model
3. Scalable model – through business growth or replication

4. Blueprint/Validate stage
5. Financials – cost and revenue drivers
6. Quality of SE
7. GSBI program/curriculum maps to social enterprise needs/goals – whether the social enterprise has the time to commit to GSBI

Throughout the interview process, without asking direct questions about this, panelists also evaluate the quality of the social entrepreneur. High quality entrepreneurs that will most likely succeed in the accelerator program are active listeners that are punctual, reliable, coachable, and articulate.

During the final selection meeting, the program manager consolidates the forced rankings from the panelist's score cards to develop a visual matrix. The matrix visually exhibits where each candidate stands. This matrix guides the final negotiations of semi-finalists until the final cohort is selected.

According to Alex Pan, Senior Program Manager at the Global Social Benefit Institute, historically there has been excess capacity within a cohort due to a lack of qualified applicants. The center has not needed to necessarily weigh one enterprise against another to determine qualification because of the high individual standards to which the center holds participating enterprises.

GSBI's Impact Measurement

Breadth

As previously discussed, social impact can be costly to measure and difficult to compare across businesses because impact depends on the nature of the company's specific business model and the sector in which it operates. After participation, GSBI measures alumni data using electronic surveys. Currently, the key metric collected to measure breadth impact is lives impacted, with each enterprise defining the framework behind the numeric figure provided. Depending on the enterprise, lives impacted may encompass more specific impact statistics, such as wages provided, jobs created, services delivered, or people trained. Lives impacted is a consistent statistic collected from GSBI participants. Participants report this data before the incubator on GSBI applications, during the incubator through various deliverables, and after the incubator via electronically disseminated alumni surveys. For the 2016 cohort, these metrics were collected in 2015, 2016, and 2017 respectively. Because some enterprises do not respond to alumni surveys and/or they do not have impact data on hand, not all of the 14 enterprises have lives impacted data for all three years. However, compared to other metrics, lives impacted is the most consistently collected and recorded impact data amongst this cohort.

The graph below represents cumulative GSBI accelerator alumni impact in terms of lives impacted. Evaluating the data, it is clear that a small percentage of enterprises make up for the majority of the total lives impacted statistic. Out of the alumni from which data was collected, 7% make up 80% of total lives impacted and 35% make up 99% of total lives impacted. Many of the major contributing enterprises to the total lives impacted metric are ICT enabled. Though participants define the framework behind their individually reported lives impacted metrics, the figure fails to represent differences in depth. Although every life that is "positively benefitted" is clearly not affected to the same degree, lives impacted provides more comparable data than completely qualitative metrics for instance.

Percent of total impact	Contributing Social Enterprises (N)	Percent of total alumni with data (N=350)	Percent of total alumni (N=800)
80%	24	7%	3%
90%	44	12%	5%
95%	69	19%	8%
99%	130	35%	16%

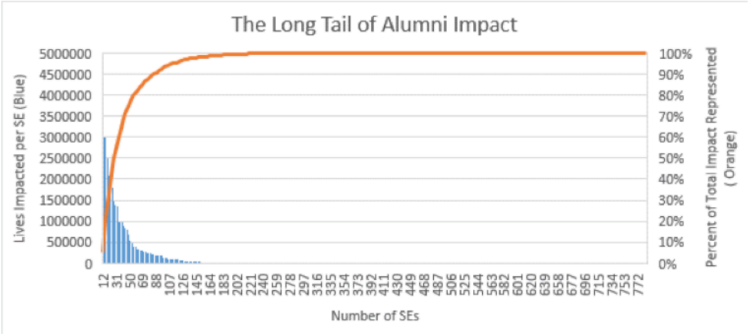


Figure __: Graph showing the % of alumni contributing to % of total lives impacted

Depth

The Miller Center currently evaluates its depth impact using the volume of impact framework shown in Figure __. Though useful, this framework leads to various questions. Theoretically, *is a 3-point scale descriptive enough? Should the measurement consider other relevant, yet unmeasured factors such as duration, contribution, population, or risk? Practically, how and when should the "changed," "transformed," or "saved" depth labels be assigned?* Who should have the authority to determine these classifications? The Miller Center is constantly grappling with these types of questions, which this study hopes to further discuss and illuminate. In addition to this framework, the center uses qualitative storytelling to communicate depth impact.

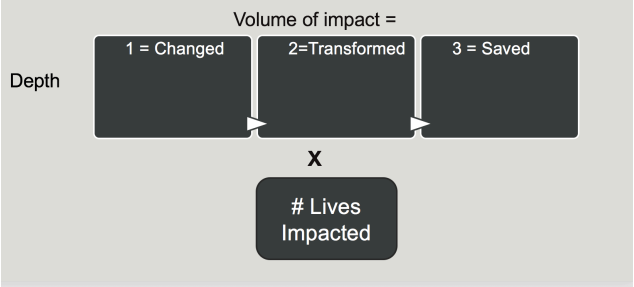


Figure __: Depth Impact Measurement Framework used in the Miller Center

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