

CYRUS CHRONICLE JOURNAL (CCJ):

Contemporary Economic and Management Studies in Asia and Africa



An imprint of the CYRUS Institute of Knowledge (CIK)



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Announcements:

- [CIK 2019 Conference](#) – April 17th to 21st 2019, MIT, Cambridge, USA
- [CIK 2018 Conference](#) – March 4th to 7th 2018, ESCA and UM5, Casablanca and Rabat, Morocco
- [CIK 2017 Conference](#) – April 14th to 16th 2017, MIT, Cambridge, USA
- [CIK 2016 Conference](#) – March 15th to 17th 2016, The American University in Cairo, Egypt
- Guidelines for submission to CCJ - <http://www.cyrusik.org/ccj/submission-guidelines/>

CYRUS CHRONICLE JOURNAL (CCJ):
Contemporary Economic and Management Studies in Asia and Africa

The flagship journal of the CYRUS Institute of Knowledge

THE CYRUS CHRONICLE JOURNAL (CCJ)

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Purpose:

The CYRUS Institute of Knowledge (CIK) Journal is a refereed interdisciplinary journal. The editorial objective is to create opportunities for scholars and practitioners to share theoretical and applied knowledge. The subject fields are management sciences, economic development, sustainable growth, and related disciplines applicable to the emerging economies in Asia, Africa, and other emerging economies. Being in transitional stages, these regions can greatly benefit from applied research relevant to their development. **CCJ** provides a platform for dissemination of high quality research about these regions. We welcome contributions from researchers in academia and practitioners in broadly defined areas of management sciences, economic development, and sustainable growth. The Journal's scope includes, but is not limited to, the following:

Business Development and Governance
Entrepreneurship
Ethics and Social Responsibility
International Business and Cultural Issues
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Institutions and Development
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He will be assisted by an editorial board consisting of distinguished members from world-class institutions of higher learning, practice and industry.

We invite authors to submit their papers and case studies to Editor@Cyrusik.org. We will have a quick turn-around review process of less than two months. We intend to begin with two issues per year consisting of about 5-8 papers and case studies per issue. The first issue is being planned for the fall of 2015. A selected number of papers submitted to the CIK conference will be double-blind reviewed for inclusion in **THE CCJ**. We intend to have special issues on themes that are within the scope of Journal. Also, we will have invited guest issues.

THE CCJ: An imprint of the CYRUS Institute of Knowledge (CIK)

Background:

This is a historical time for the mentioned regions, and The Cyrus Chronicle intends to offer what is most urgently needed. There is no question that organizations and businesses that are capable of analyzing and applying advanced knowledge in management sciences and development are in high demand, and especially during transitional periods. It is an unusual time in the target regions and the world, a time which requires active intellectual participation and contributions. It is the era of revolution in terms of communication, technology and minds for billions of people. It is a time for intellectuals, entrepreneurs, and philanthropists to help enlighten minds and therefore enrich the quality of life for millions. It is a time to focus intensely on the regions' historical characteristics, achievements, human and natural resources, and its significant deficit in development, management sciences, and democracy. CIK's vision, "to cultivate the discourse on human capital potentials for better living," is the appropriate response to current challenges, and the journal is a platform for sharing the perspectives of scholars and practitioner with a wider audience.

CIK associates tend to have a foot in two worlds. First, most of the associates possess a wealth of intellectual and experiential knowledge which is enhanced by their active involvement in business, consulting and scholarly research and collegiate teaching. Second, some associates are sons and daughters of the affirmation regions and possess an ethnic identity, language skills, and the insights only embraced by insiders. Third, most of the CIK board of directors' members and associates are well-known scholars, members of editorial boards of journals, and even editors. CIK possesses depth, breadth, and a competitive edge to successfully manage chronicle.

CIK is committed to developing knowledge that positively contributes to the life of the world citizens, especially, the target regions. CIK is a charitable, educational, and scientific organization that has been in operation since 2011. It is a secular and nonpartisan organization that has many scholars and practitioner as member.

Editor's Introduction

Since inception in 2012, the Cyrus Institute of Knowledge has held five annual meetings. Two years ago, we published the first volume of *Cyrus Chronicle Journal (CCJ): Contemporary Economic and Management Studies in Asia and Africa* in conjunction with the 2016 annual conference.

CYRUS Institute of Knowledge (CIK) has had two successful international conferences since. Between the CIK March 2016 conference at the American University of Cairo and the April 2018 at Morocco, we have accepted 54 abstracts and 10 complete papers from 12 countries and 35 institutions, organizations, and companies. Please see CIK website for detail information in this regard. For some plenary sessions we had up to 150 participants.

The acceptance rate for this issue of CCJ is less than 20% considering many papers that were submitted for review and full papers for the conference. Our aim is to publish the highest quality papers that pass through multiple review process. CIK colleagues and conference participants have proposed and suggested special issues of the journal which is based on core topics (i.e., entrepreneurship, innovation, ethics, and sustainable development) and/or country specific. Therefore, we welcome your articles which meet these characteristics. We already have several papers about Iran.

Now we welcome you to the third issue (CCJ.V3). The journal intends to cover scholarship pertaining to emerging economies in Asia, Africa, and other emerging economies. Scholarship dealing with these regions tend to be either ignored or misunderstood, and there are limited outlets for scholars who work in these countries to share their scholarly outputs. Focusing on these two continents will help researchers from both developed countries as well as these two continents - which together account for the largest portion of the world population and growth. The CCJ intends to fill these gaps. An examination of our mission may shed some light on this question. The primary purpose of the journal is four-fold:

1. To share and promote knowledge of economic, management, and development issues facing countries of Asia and Africa and other emerging markets. Focusing on assessment, evaluation, and possible solutions help advance countries in this which has the largest world habitats. Development challenges are global; virtually every country faces problems concerning economic development, sustainability, food and water, population and environmental degradation. Yet no country gains by shunning opportunities that globalization can provide, with the possible exception of a few countries whose leaders lack a full understanding of the opportunities that globalization can offer. To take advantage of such opportunities, knowledge is the primary requisite. And this journal aspires to make a contribution to this body of knowledge.
2. To encourage the generation and dissemination of knowledge by local scholars whose access to mainstream academic outlets may be limited? We know many scholars from academic, public and private sector organizations whose first-hand knowledge of problems and solutions isn't being shared for lack of an appropriate outlet for dissemination. The CCJ may provide an opportunity for spreading such knowledge.
3. To focus on countries that span the northern band of Asia – from China to Turkey – to the northern tier of Africa, areas that have not previously been the subject of much attention. In the past, these countries have tended to gain the attention of scholars and the media only in times of man-made or natural crises. But in fact, these nations have many challenges similar to those of others. They wrestle with shortages of food and water and the growth of population and pollution. Although they have educated their own citizens, especially in countries that had been under the shackles of dictatorship for decades, now they have become freer to express ideas in journals such as this.
4. Academic scholarship emanating from the region under the journal's coverage tend to get lost in the academic jungle where the pressure of "publish or perish" leaves behind the younger and less experienced members. This journal will give an opportunity to the scholars with first-hand knowledge of these areas to publish their research and thereby make important contributions to the management and development body of scholarship on which the journal will concentrate. We need to know more about these topics in countries such as Afghanistan, Kazakhstan, Morocco and Tunisia as well as other countries covered by this journal. The CCJ will provide a platform for established as well as younger scholars who might collaborate with them in their research.

In this third issue of the *Cyrus Chronic Journal*, we include four articles and one request for book chapters and cases. Scholarly articles, from established scholars and policymakers, cover the gamut from US-China relations and anomie and dysfunction in the Middle East to direct investment in the MENA countries, inclusive business in supply chain and, finally, barriers that Western educational entrepreneurs face in pursuit of educational initiatives. As part of our mission to advance

knowledge about the region and subjects of our coverage, we will continue to include reviews of major scholarly books relevant to the Journal readers.

On the journal's operational side, we want to make the publication more accessible to a wide audience across the world, and so, consistent with the 21st -century trend toward electronic media, we will publish this journal online. To maintain rigor and originality, articles submitted to the journal will undergo the standard blind review process. Reviewers' anonymous comments are shared with authors, as appropriate. Submission guidelines and procedures are delineated on the journal's website: <http://www.cyrusik.org/research/the-cyrus-chronicle>

As the first editor of the journal, I am pleased and proud to accept this challenge. I bring some experience; my first editorial assignment was as an undergraduate at the then Pahlavi University in Shiraz, Iran, a top-ranking institution in the region. A few students and I founded and published Danesh-Pajouh (knowledge seeker). In those days when freedom of expression was severely limited, we managed to publish one issue in March 1965 before the censors put a stop to the enterprise.

Years later, while directing a doctoral program in international business in Texas in the early 2000's, I also was the co-editor - and eventually editor - of the International Trade Journal (ITJ) until my retirement in 2013. Under my leadership, the ITJ acceptance rate fell below 10%.

Publishing an academic journal is simply a labor of love. The rewards are many-fold and include working alongside a dedicated team of colleagues – Nader Asgary, Alf, Nancy Black Sagafi-nejad, and the entire editorial Board. In addition, of course, we thank our contributors who have trusted their work of scholarship is being published in a new but growing and promising publication. They have spent many hours working to polish and prepare for the journal for publication. In this third issue, we have already reached a threshold of about 20% in acceptance. Still, CCJ needs your support and so I ask for your help in the following ways:

- We are interested to offer special issues based on themes and country case studies. Your support, suggestions, and contributions are welcomed;
- Contribute articles, case studies, and book reviews and commentaries;
- Encourage your colleagues to do the same;
- Spread the word, especially in countries where CCJ can be most effective;
- Cite the articles published in this journal in your own research when applicable;
- Attend the annual conferences of the CIK (<http://www.Cyrusik.org>), physical platforms that serve every year as spawning ground for articles that may ultimately be published in this journal;
- Give us your feedback by telling us how we can further promote and improve the journal.

Welcome and thank you.
Tagi Sagafi-nejad, Editor

Impact Investing: Relying on Social Return on Investment to Address Epilepsy in Africa

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Abstract²⁹

The growth of impact investing as a method of addressing some of the global social challenges is creating opportunities for the capital market participants to engage in investment with financial, social, and environmental returns. This paper analyzes the Social Return on Investment (SROI) study of a health care project in Kenya to highlight SROI as one of the measures of a social return and to demonstrate the need for expansion of impact investing. It also proposes the need for the global financial market to create additional financial instruments to attract more private investors to finance social and environmental challenges.

Key Words: Social Return on Investment (SROI), Impact Financing, Kenya Mobile EEG, Epilepsy in Africa, Global Capital Market

Introduction

Some of the most common social challenges in today's world are related to health care in developing countries. Most of the illnesses faced by people in those regions can often be alleviated by inexpensive vaccinations or simple medical procedures. In such cases, it is typically the government agencies, international organizations and foundations that provide funding to assist those communities. Despite the growth of impact investing, defined as the type of investment "designed to create impact beyond financial return, specifically social and environmental impact" (O'Donohoe, et.al. 2010), funds from private investors are not normally channeled into social projects, for a number of reasons, including the challenge of measuring the rate of return on these projects.

One of the common measures of the overall performance of a social project is the Social Return on Investment (SROI). Initially documented in 2000 by REDF, a San Francisco based philanthropic fund (Ross & Hall), it is becoming increasingly popular among investors and organizations. By recognizing value from a broader perspective than traditional cost-benefit approaches, SROI helps to understand how social, economic, and environmental benefit is created and destroyed; it reveals the total amount of such benefit for every dollar of investment. Forecasted SROI serves as a projection of value of future initiatives. It can be used as a planning tool since it identifies the ways in which impact of an investment can be maximized. It also demonstrates which areas of a project should be measured. Evaluative SROI illustrates the impact of the project that has already taken place. It can be used to attract investors for future projects and serve as a learning tool for the organization. While the measure has its limitations, many organizations interested in creating social value can benefit from using it to plan, evaluate, and fund projects.

A recent example of an SROI application was an analysis of a healthcare intervention by the Social Enterprise Institute (SEI) at Elizabethtown College in 2017. SEI completed an evaluative SROI study of the Kenya Mobile EEG project of the ROW Foundation and its underwriter, OWP Pharmaceuticals. ROW Foundation is a nonprofit charitable organization with the mission to improve lives of people with epilepsy in under-resourced areas. The project focused on the diagnostic side of solving a persistent problem in Sub-Saharan Africa: a 90 percent treatment gap for epilepsy; it tackled the problem by focusing on the Republic of Kenya (Reeb et al., 2017).

This research paper considers SROI Impact Report of the Kenya Mobile EEG project as a case study to explore the value of similar future initiatives on the African continent. Two challenges facing the growth of impact investing will be examined: the inherent difficulty of measuring some of the benefits of social projects and the feasibility of new financial instruments, developed in the global financial markets, to attract funds for those projects. Part II presents

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²⁹ This paper represents the opinions of the author(s), and is the product of professional research. It is not meant to represent the position or opinions of CCJ or its editors. Any errors and/or omissions are authors.

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the Review of Literature and Part III offers the explanation about the Kenya Mobil EEG Project. The Methodology is discussed in Part IV, followed by Analysis and Results in Part V. The study covers the Evolving Role of the Financial Markets in Part VI. Finally, the Summary and Concluding Remarks are presented in Part VII.

Review of Literature

Fujiwara (2015) studied the problems that currently exist in regard to measuring and evaluating social return on investment. The study found the principal problem with SROI to be a lack of clear, consistent guidelines that could be applied to social investment projects. The study suggested incorporating welfare-weighting factors heavily used in cost-benefit analysis as a means of creating clear guidelines for evaluating SROI. Fujiwara noted the vague framework currently used to evaluate SROI could lead to bias, unintended focus on a narrow subset of stakeholders, and incomplete valuation of a project. Furthermore, the study identifies the challenge of quantifying societal interests and good ethics in business. The author suggests that in order to develop a solid framework for measuring SROI, normative theory of the good should be used as the consistent measure of societal interest and ethics.

A study released by the Social Impact Taskforce in 2014 offered practical advice for investment management to incorporate into its impact investing framework. The study found the importance of setting goals, selecting quantifiable performance metrics, collecting and storing key data, analyzing and reporting the data in a clear fashion, and making data-driven investment management decisions. The report also identifies three external trends that may impact measurement in the future. The trends are the convergence of the market, emerging unexpected external shocks, and changing quantification methods. The study presents the need for continued learning in the field of impact investing and calls for the development of a shared impact measurement agenda (Social Impact Investment Taskforce, 2014).

Waygood considered the influence of capital markets over corporate sustainable development by defining two routes in which it occurs: financial influence and investor advocacy influence. Financial influence refers to the activity (buying and selling of equity shares) in the capital markets which influences the cost of capital for the companies. Investor advocacy influence refers to the influence of shareholders' ownership rights. Neither of those sources of influence, however, advocate for "sustainable development sufficiently broadly to ensure that we have a green economy" primarily due to market

inefficiency and market failure (Waygood, 2011, 82). Waygood offers several solutions to address the market inefficiency. The first solution involves creating the incentives for all key market participants based on their sustainability performance. The second solution is to require companies to disclose their sustainability performance through global listing rules. To resolve market failure, he suggests to "internalize corporate externalities to company accounts via [...] increased use of fiscal measures, standards and market mechanisms" (Waygood, 2011, 86); greater government intervention will be important to support those changes.

Between 2014 and 2015 the Center for Effective Philanthropy conducted a study on investing and social impact; 230 CEOs of private American foundations were surveyed and 73 responded. The study revealed that 41% of foundations engage in impact investing, 6% plan to engage in it in the future, 33% do not engage in impact investing and are not sure whether that will change in the future, and 20% do not currently engage in impact investing and do not plan to do so in the future. Top reasons why many foundations are not engaging in impact investing included the belief that impact investing will not help the foundation to achieve its goals, lack of expertise, skills, and staff to engage in impact investing, and focus on financial returns exclusively (Buchanan et al., 2015).

Moody, Littlepage, and Paydar conducted a case study of SROI applications in health care field by two organizations in the United States and two organizations in Netherlands (2015). Even in the small sample used in the case study, the variation of SROI applications was significant. Among the differences, both Dutch organizations used consultants and software, while both American organizations did not rely on either. The use of consultants and software helped the Dutch organizations, but many major challenges related to measuring SROI remained significant. All companies struggled with setting the limit for "ripple effect" (identified social returns could "cascade" into broader social returns), monetizing certain outcomes such as improved well-being, calculating attribution and deadweight accurately, among other things (Moody et al. 2015, p.30). Moody, Littlepage, and Paydar pointed out that the process of SROI assessment is often more valuable than the product as it contributes to transparency, encourages stakeholder engagement, and allows an organization to understand how it creates impact. SROI measure is often more sophisticated in theory than in practice. Its effectiveness can be maximized if the organization treats SROI as a continuous process, rather than a singular calculation. Transparency in assumptions and inclusive stakeholder engagement, among other factors, similarly improve the effectiveness of SROI (Moody et al. 2015).

Kenya Mobile EEG Project

In Kenya, about 800,000 people suffer from epilepsy (Kaweorg, 2016), a chronic disorder characterized by seizures. The capacity to treat it, however, is very limited. As of 2016, it was estimated that there were only 10 EEGs, machines necessary for diagnosing epilepsy, in the country; both were located in the largest cities, Nairobi and Mombasa. Another challenge in addressing epilepsy in the region is the lack of knowledge about the condition. The symptoms of epilepsy are often viewed as demonic possession and those who suffer from it become social outcasts (London, 2017). To address those issues, ROW Foundation and OWP Pharmaceuticals set up the Kenya Mobile EEG Project.

The project provided a sustainable means for the diagnosis of epilepsy at Tenwek and AIC Kijabe hospitals. At each of the hospitals, 2 EEG technicians and 10 doctors received education about the condition, as well as the training for administering the EEG test. The hospitals are now connected to volunteer neurologists in the United States through an online network; the neurologists provide diagnoses and treatment plans for the patients in Kenya. Medical staff in Kenya receives an ongoing distance education about epilepsy. As a result of the project, 98 patients received epilepsy diagnoses over the span of 12 months.

Methodology

To evaluate the impact that was created by the Mobile EEG Project, Social Enterprise Institute (SEI) used the Social Return on Investment (SROI) method.

The following steps were undertaken to calculate the SROI:

1) Analysis Stage 1: Definition of Measurements

In the first stage, the parameters for the SROI analysis are defined through stakeholder engagement and the theory of change is established and refined. The theory of change plays a critical role at that stage by clarifying why a particular change is going to occur.

2) Analysis Stages 2 & 3: The SROI Analysis

In the second and third stages, cost and outcome data is collected. The indicators that need to be measured and collected are identified. The financial values and proxies are determined. The impact map is developed.

3) Analysis Stages 4 & 5: Model and Calculate the SROI

In the fourth and fifth stages, previously determined financial proxies are applied. The impact and the SROI are calculated (Reeb et al., 2017).

Analysis and Results

In the first stage of the SROI analysis, the SEI team narrowly defined stakeholders to include patients, household members, trained healthcare providers, related staff, and the Kenya Mobile EEG Project team. The following theory of change for the Kenya Mobile EEG project was established: by providing equipment and epilepsy-specific training, the project creates capacity for diagnosing and addressing a medical disorder which would remain untreated otherwise. Given that patients receive proper treatment after the diagnosis, they can find relief from negative economic and social consequences, as can friends and family members who may be involved in the daily care of a loved one with epilepsy. Secondary medical complications such as falls, fractures, burns, and drowning accidents suffered due to untreated seizures can be minimized. All calculations of SROI rely on the assumption that ROW Foundation will follow its long-term strategy which consists of not only providing the means for diagnosing epilepsy, but also increasing the availability of drugs (AED) to treat the disorder. Considering the theory of change, the Social Enterprise Institute team limited the scope of the report to two goals:

1) Quantifying the Kenya Mobile EEG Project's impact and the magnitude of individual outcomes for a 12-months period.

2) Demonstrating the collective impact of a multi-organizational approach to addressing stigma-producing chronic medical conditions in under-resourced areas on a project basis (Reeb et al., 2017)

Over the period of 12 months, 98 patients were diagnosed with epilepsy, 4 EEG technicians and 20 doctors were trained, and 2 EEG machines were purchased. For the purpose of the SROI report, it was established that patients will see changes in their financial (ability to work) and physical (awareness of medical condition) well-being. The families of patients will benefit from a change in lifestyle (ability to work) and technicians and doctors will benefit from increased knowledge.

In the second stage, cost data and outcome data was collected. The cost data reflects the monetary value of resources used in the project. It includes the cost of EEG machines, training of technicians, etc. The outcome data reflects the value of the benefit and it was determined by assigning financial proxies to perceived benefits. The proxies used in the analysis included QALY, DALY, and HDI. QALY (quality-adjusted life year) is a measure of

the burden on a life from disease or the value of a person's health using the quality of life and the length of life. One QALY is the equivalent of one year of perfect health (Prieto & Sacristan, 2003). DALY stands for disability adjusted life year and is defined as the loss of a healthy life. One DALY is the equivalent of one year lost due to disease (World Health Organization, 2017). The HDI (human development index) is based on the measure of three indicators: knowledge, standard of living, and a long and healthy life. The human development index is "the geometric mean of normalized indices for each of the three dimensions" (UNDP, 2016). After identifying cost and outcome data, as well as relevant proxies, the SEI team developed an impact map to capture how activities of the Kenya Mobile EEG Project make a difference in lives of various project stakeholders. For instance, the EEG training impacts the technicians by allowing them to perform scans that can be later transmitted to neurologists in the United States. The technicians can use this training later in their careers. Refer to Table 1 for examples of outcomes of the Kenya Mobile EEG project for patients and their families.

Table 1. Impact Map Elements

Stakeholder	Input	Outcome
Patients	Number of Patients	Improved Quality of Life: Economic Power Knowledge About the Condition
Families of Patients	Number of Family Members Acting as Caregivers	Increased Economic Contribution

The following table illustrates outcomes of the Kenya Mobile EEG project for patients and their families.

At the final stages of the SROI analysis, previously determined proxies are applied. For instance, the value of improved well-being of patients was monetized by multiplying the number of patients who were diagnosed with epilepsy by the relevant application of proxies discussed earlier. Then, deadweight, displacement, attribution, and drop off are determined and applied to the previously calculated outcome. Deadweight is a measure of an outcome that would have happened even if the project in consideration had not taken place. Displacement is the estimate of the amount of business that would be displaced because of the project. Attribution is an assessment of how much of the outcome was caused by the contribution of another organization.

Finally, drop off is an estimate of how long the outcomes of the project will last. To illustrate the application of those measures, financial benefit of patients as a result of the project can be considered. For example, the deadweight is 14.7% which is the unemployment rate of the Nairobi country; no economic benefit can be assigned to that fraction of the population. For displacement, 0% was used. It is assumed that no one will be displaced once patients gain economic power. Attribution is an assessment of how much of the outcome was caused by the contribution/offering of other organization. About 3% of Kenyans utilize services of traditional healers; for a conservative estimate, it was assumed that 1.5% of impact can be attributed to them. The drop off is 0% under the assumption that ROW will follow its long-term strategy; the solution, in other words, is assumed to be sustainable (Reeb et al., 2017).

After completing these steps, the SROI for ROW Foundation and the Social Enterprise was calculated using the following equation:

$$\text{SROI} = \text{Net Present Value of Benefits} / \text{Net Present Value of Investments}$$

The team estimated the SROI of \$20.94 based on the impact of OWP over a 12-months period and \$1.42 based on the collective impact of ROW and OWP on effects of epilepsy in the region. The collective impact represents a more realistic result; it means that through the efforts of two organizations \$1.42 of was created for every \$1 of investment.

Positive results of the evaluative SROI report suggest that similar initiatives might be valuable in other Sub-Saharan countries (treatment gap for epilepsy is 90%). ROW Foundation can use the SROI report to identify factors that contribute the most value to stakeholders. The report can also serve as a baseline to forecast an impact that initiatives similar to Mobile EEG project might have in the region. To examine the results of the project in some context, SROI results of other projects in public health can be considered (Reeb et al., 2017); refer to Table 2. Due to the heterogeneity of projects and differences of SROI implementation, the variation of SROI ratios in public health is significant. Given a fairly small number of studies, it is difficult to make strong conclusions about using SROI measure to attract investors. All studies, however, had positive results which suggests that investment in public health area is likely to lead to positive social and economic impact. If more studies are conducted to more accurately measure SROI in the area, investor confidence can be increased.

Table 2. Social Return on Investment, Public Health Projects

The following table illustrates SROI ratios for various projects in public health area. For instance, three studies in nutrition were conducted and the social and economic return varied between \$2.05 and \$5.28 for every dollar of investment.

Public Health Area	Number of Studies	Minimum SROI Ratio	Maximum SROI Ratio
Child Health	4	1.85	65.00
Environmental Health	1	26.00	26.00
Health Care Management	2	1.98	7.00
Health Education	1	7.25	7.25
Health Promotion	12	1.10	11.00
Mental Health	11	1.57	11.91
Nutrition	3	2.05	5.28
Sexual Reproductive Health	6	1.73	21.20

An analysis of the SROI report of the Kenya Mobile EEG Project illustrates the inherent difficulty of measuring return on social projects. The results obtained by the Social Enterprise Institute team are based on several assumptions; for instance, to have the social impact described above, the foundation needs to ensure that it follows its long-term strategy of providing generic drugs in the region. As ROW Foundation and SEI continue revising the report and conducting follow-up interviews with major stakeholders, the results of the SROI analysis will be further improved.

Evolving Role of the Financial Markets

The role of the financial markets has expanded throughout history. What started as a mechanism for connecting net borrowers with net savers has evolved today to include an extensive web of investment options, hedging instruments, and speculative vehicles. The markets continue to adapt, and new instruments are created in order to meet investor demand and increase efficiency in the market. Today, the financial markets are experiencing a shift towards socially-responsible investing, as government agencies and charity organizations do not have the necessary capital to solve the augmenting social problems plaguing society. The increasing social need without a matching sustainable governmental or charitable solution, presents the opportunity for the

financial markets to evolve yet again to meet the growing demand for a stable, liquid, fixed-income security that promotes social good.

Aviva released a white paper aimed at providing policy makers with suggestions on how to most effectively mobilize the capital markets, specifically in regard to discussions within the UN Framework Convention on Climate Change on the replacement of the Kyoto Protocol in 2015. The report highlights the benefits of focusing on the trillions of dollars of private capital that can be utilized for social good rather than the billions of dollars of official government assistance handed out. The report accentuates the need for changes in the cost of capital structure to incorporate firm sustainability, alterations in capital raising objectives, and capitalizing on different ownership vehicles (Aviva, 2014).

A. Social Impact Financial Instruments

There is a number of financial vehicles that currently exist for advancing social good, including venture capital investment, microfinance, and bond instruments. Each of these vehicles has a unique set of advantages and disadvantages. In 2015, the market for impact investing was around \$250 billion; global microfinance captured about \$102 billion, U.S. community finance took about \$61 billion, green bonds accounted for nearly \$50 billion, international development vehicles made up about \$20 billion, and U.S. economically targeted investment was between \$10 billion and \$20 billion (Thornley et al., 2015). The size of each of the financial instruments is growing and the financial market is expanding its role of allocating capital to more and more social projects.

i. Green bonds

Green bonds were created to promote environmental responsibility. The bond instruments are issued for the development of brownfield sites, meaning the bonds support projects that promote renewable energy, sustainable transportation, energy efficiency, watershed management, pollution reduction, or climate change resistance.

The first green bond was issued in 2007 by the European Investment Bank (EIB) and the World Bank. From 2008 to 2012, nearly \$2.5 billion were put into the green bond market. 2013 saw a huge jump in issuances as \$11 billion was pumped into the green bond market. By 2015, \$42 billion was in the market, and by September of 2016 over \$50 billion was in the green bond market (Climate Bonds Initiative, n.d.).

ii. Blue Bonds

The government of Seychelles turned to innovative financial instruments to promote sustainable development. Supported by the World Bank guarantee and GEF guarantee, Seychelles started issuing Blue Bonds in 2017. The proceeds from the issuance will be directed towards transitioning Seychelles' artisanal fishery to sustainable management, among other areas ("Innovative Ocean Financing: Seychelles Blue Bonds").

iii. Social Impact Bonds

The World Bank, known for pioneering international initiatives and promoting sustainable growth and investment in people, is also an innovator in the field of social impact bonds. A report released by the Center for International Climate and Environmental Research – Oslo (CICERO) in 2015 examined the World Bank's framework for selecting green bond projects. The report found the thorough selection process of the World Bank included an environmental categorization, social classification, at least two management reviews, and approval from the Board of Directors. CICERO found no obvious weaknesses in the current structure of the World Bank's selection process. However, the review pointed out the rebound effect as a potential problem for calculating social return on investment (SROI); CICERO noted a project that reduced energy costs may have the unintended effect of inducing more energy use, effectively reducing the energy cost saving calculated as part of the expected social return (CICERO, 2015).

A study conducted by Jackson (2013) explored the relationship between SIBs and community development, looking specifically at the challenges, outcomes, and possibilities created by supplementing public financing of social programs with impact investing. The study found that incorporation of SIBs is a fast-growing trend among advanced economies, and public policy objectives have started to increasingly intersect with impact investing. Public policy such as the Community Reinvestment Act finance a massive network of community development institutions focused on augmenting social infrastructure. An increasing number of these institutions have started to invest in SIBs, highlighting a transition from government financing to impact investing as a means to solve social issues. Furthermore, the study emphasized the risk-reduction qualities of SIBs in a portfolio.

One example of a successful social impact bonds program is a case of Rotterdam-South. The goal of the initiative was to "re-employ [...] the unemployed through cooperation between business, government, and education" (Charite, 2015, p.2). Structured as a pay for success arrangement, the bonds provided a return to

investors due to the fact that the program made an impact in the community. As a result of the program, more than 500 people returned to work and the municipality of Rotterdam saved €9 million. The impact of the initiative was assessed by an independent evaluator.

B. Additional Financial Instruments

Some other financial instruments that are used for impact investing include crowdfunding and Revenue Participation Financing. Crowdfunding is a resource-pooling practice for financing projects, companies, and individuals (Gajda & Mason, 2013). Revenue Participation Financing, on the other hand, offers an investor a certain percentage of the gross revenue until the investor has been paid "x" times the amount of initial investment. In such cases, the investor is not an equity stakeholder or even a creditor, but rather is shared in gross revenue of the project once the project generates any revenue (Jones, 2014).

As of 2016, there were 29 crowd funding portals registered with the SEC; some of them include impact investing as a focus (Kline, 2017). Kiva, a crowd-lending platform, reported a 99.01% repayment rate on its loan of \$456.5 million to over 1 million people. While repayment rates are easy to measure, the impact of crowdfunding efforts is not. A lack of a "comprehensive impact measurement and reporting" is highlighted as one of the primary challenges of crowdfunding for impact by the Toniic, a global network of impact investors (Gajda & Mason, 2013, p.16).

C. Role of Governments

Governments are often the first groups to fund social projects. They also bridge the gap between the needed capital for social projects and the available funds through the private capital. The gap, however, could be reduced over time with the development of a framework that would incentivize private investors who are passionate about social issues, but still want to gain some financial return.

Projects such as the Kenya Mobile EEG could potentially be financed through government-issued social bonds, for instance. Private investors can be incentivized to invest in such bonds through preferential tax treatment on returns or a guarantee of a minimum return. Such a framework has several benefits. From a social perspective, private funds can be channeled into projects with high SROI, but do not have enough funding. In the case of Kenya, there are no significant government-sponsored initiatives that would promote the well-being of people with epilepsy, even though the social return on such projects is likely to be high. The government would benefit from this

framework as well. It can either alleviate the financial burden of sponsoring current projects or start facilitating the support for projects that previously did not receive any benefits. If the Kenya Mobile EEG Project was sponsored through government-issued bonds with a preferential tax treatment, the government's decreased tax revenue can potentially be offset by an increase in adult population (patients and care givers), who can now be employed and pay taxes. The suggested framework can be further enhanced by forming a syndicate between governments and international organizations such as WHO or UNICEF that would be willing to serve as the underwriters for the issue of social impact bonds.

Summary and Concluding Remarks

Despite the global growth of impact investing, there is still a need for a comprehensive framework for addressing the lack of funds for social issues. Governments and international organizations have poured significant amount of resources into addressing some of the key social challenges, but the need for new and more capital is still significant. While coming up with more funding is not the only solution, it could provide a significant relief to major social challenges. One of the obstacles in attracting private funds is the difficulty of measuring and quantifying the Social Return on Investment for social projects. This paper attempted to use a case study in Kenya to demonstrate some initial steps in measuring SROI for a health care issue in a developing country. It also proposed the need for the global financial market to create additional financial instruments to attract more private investors to finance social and environmental challenges.

The good news is that many people including a growing number of young people, organizations and foundations care about the major social issues. They want to help by investing in projects that address them, but the lack of information about the benefits of such projects, the lack of transparency in assessing risk, and the lack of sufficient financial instruments for investing by the general public are the major impediments to the growth of funding for such initiatives. However, recent interest in addressing the social challenges, the trend to more accurately assess the SROI on social projects, and the growing list of financial instruments to fund them are indicative of a positive movement toward addressing the social issues through the capital markets.

Endnotes

1. This paper represents the opinions of the authors, and is the product of professional research. It is not meant to represent the position or opinions of CCJ or its editors. Any errors and/or omissions are the fault of the authors.

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