

Edited by Lisa M. Hanley, Stephan A. Jansen and Beate Grotehans

ENTREPRENEURIAL  
**SOLUTIONS FOR  
SOCIAL  
CHALLENGES**

**IN COLOMBIA, ETHIOPIA,  
KENYA, MEXICO  
AND SOUTH AFRICA**

LESSONS FROM THE  
INTERNATIONAL RESEARCH NETWORK ON SOCIAL  
ECONOMIC EMPOWERMENT

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# SOCIAL ENTERPRISES UNDER THE MICROSCOPE

# FOREWORD

While social entrepreneurs play an increasingly important role in driving social and economic empowerment in developing regions, practice-related academic work that supports their operations is hard to find. We struggled with this at Siemens Stiftung when we embarked on our own operational projects in Eastern African countries, and found many social entrepreneurs in the global south facing the same challenges.

The approach of the Siemens Stiftung is to identify innovative and proven solutions that we can implement ourselves or together with partners. To facilitate this knowledge transfer, we analyze the methods and impact of our concepts. We offer research and exchange opportunities as well as partnership platforms for social entrepreneurs, technical experts, and academic partners. We are convinced that entrepreneurial thinking and innovative solutions are crucially important to sustainable social and economic development.

Against this strategic background, Siemens Stiftung teamed up with the Civil Society Center of the Zeppelin University in Friedrichshafen on Lake Constance five years ago and established the International Research Network on Social Economic Empowerment (IRENE|SEE). It was set up to enhance our understanding of social enterprise ecosystems in developing countries not merely by exchanging academic findings, but by creating a network of academic communities researching social and economic empowerment in Latin American and Africa.

The research network was coordinated by Lisa M. Hanley at the Civil Society Center of Zeppelin University, under the direction of Professor Stephan A. Jansen and Beate Grotehans of the Siemens Stiftung for a period of four years. In cooperation with university partners in Colombia, Ethiopia, Mexico, and South Africa, it concentrated on exploring processes of economic empowerment.

We believe in the power of personal experience, and IRENE|SEE was designed to foster personal exchange among the PhD-students from Africa, Europe, and Latin America. This resulted in strong ties not only between the researchers but also among the participating universities in the course of several seminars and mutual visits. The 2013 research conferences at the Woodrow Wilson Center in Washington, D.C. and at the 2014 Global Social Business Summit at the Tecnológico de Monterrey in Mexico City were certainly highlights in this regard.

Among the activities taken on by IRENE|SEE was the provision of financial assistance and supervision for doctoral theses. IRENE|SEE researchers from Zeppelin University also conducted the study, “Taking the Pulse of the Social Enterprise Landscape in Developing and Emerging Economies,” which explored the scope and scale of social enterprises and social investors in Colombia, Kenya, Mexico, and South Africa, and their ability and potential to satisfy basic needs of low income populations.

We are thrilled to see the many ideas and projects this network has inspired and remain committed to promoting practice-related research for the benefit of social entrepreneurs in the context of our “empowering people. Network.” In this community, research is one of many activities aimed at promoting the provision of basic services through a simple but appropriate technical product or solution embedded in a social entrepreneurial approach.

Overall, the work of IRENE|SEE led to recommendations for action on specific Siemens Stiftung projects. The goal was to develop projects that take into account the specific conditions pertaining to each country and lead to proper and culturally-appropriate solutions, thereby fostering long-term viability. The research carried out by IRENE|SEE researchers has informed our operational project work and we hope it will do the same for many other academics and practitioners in the field.

I would like to thank all participating researchers for their meaningful contributions, congratulate them for their achievements, and above all, wish them a successful continuation of their truly important work.



**ROLF HUBER**

Managing Director, Siemens Stiftung

# ABOUT THE INTRO STUDIES

Lisa M. Hanley, Stephan A. Jansen,  
and Beate Grotehans

Siemens Stiftung, together with Zeppelin University (ZU), initiated the International Research Network on Social Economic Empowerment (IRENE|SEE) in 2011 for the purpose of examining social economic empowerment in Africa and Latin America with a special focus on social enterprise and market oriented solutions for providing basic services. The researchers examined how entrepreneurial thinking and innovative solutions can contribute to sustainable social and economic empowerment in developing and emerging economies. Through a network of universities<sup>1</sup>, coordinated by ZU, six doctoral students in Colombia, Ethiopia, Germany, Mexico, and South Africa researched entrepreneurial approaches to development as well as participated in an international exchange of ideas across the regions. Over the four year project, the researchers engaged in discussions through both network meetings and virtual online seminars in an effort to generate knowledge and gain a better understanding of policy recommendations for fostering social entrepreneurship and improving the impact of social enterprises. The network exchanges helped to generate lessons and insights from different regions, as well as translate research into policy recommendations. The meetings provided research support and guidance to the doctoral students, connected them with faculty at different universities and from different countries, and built a community of student and faculty scholars engaged in research on social economic empowerment with a regional focus on Africa and Latin America. In order to strengthen the network, a variety of meetings were held over the course of the project. The kick off workshop was held in Berlin in August of 2011, where the doctoral students and their supervisors met with representatives from the Siemens Stiftung in order to exchange ideas and build a community. Two years later the network met in 2013 in Washington, D.C. to host an event, Locating Social Entrepreneurship in the Global South at the Woodrow Wilson International Center for Scholars, alongside a PhD Workshop

aimed at evaluating the research in progress. The final meeting of the network was held in Mexico City in cooperation with the Global Social Business Summit Research Conference in 2014. In addition, over the course of the project, the doctoral candidates and professors visited each other's universities in an effort to promote collaboration and exchange between the Latin American and African universities in the network. Through the efforts of the IRENE|SEE network, the researchers have contributed to both theoretical and empirical knowledge around social enterprise and social economic empowerment that is pluralistic in disciplines, as well as methodology. The multidisciplinary studies presented in this volume contribute to the effort to understand the diversity of social enterprise experiences at national and local levels, as well as the way third and private sector enterprises and organizations are embedded in their respective societies. This volume aims to presents some of the findings, results, and recommendations of the research conducted through the IRENE|SEE network.

This research network focused on the study of the feasibility, utility, and limits of social economic empowerment. This comprises not only theoretical studies, but also the collection and evaluation of empirical data from Colombia, Ethiopia, Kenya, Mexico, and South Africa. The results illustrate the similarities and differences among and within the countries and regions. The research also encompassed a range of topics

1) The university network is composed of the Adama University School of Business, Ethiopia (Professor Peer Ederer), EGADE Business School of the Tecnológico de Monterrey (ITESM), Mexico (Professor Gerardo Lozano), Universidad de Los Andes School of Management, Colombia (Professor Roberto Gutiérrez), University of Stellenbosch Business School (Professor Meshach Aziakpono), South Africa, and the Civil Society Center at Zeppelin University, Germany (Professor Stephan A. Jansen).

with different contexts which has resulted in a rich picture of initiatives and innovations taking place across the globe as efforts to reduce poverty and provide basic services through entrepreneurial approaches are intensified. The authors have dealt with approaches that include how multinational corporations can incorporate the low income sector into the value chain to technology hubs, as well as the promotion of hybrid organizations to meet the challenges of health care, and the role of entrepreneurship in scaling access to energy and job creation. We hope this volume is able to do justice to the richness of the research and the diversity of the countries examined by the researchers in the IRENE|SEE network. In addition, we hope this volume helps disseminate and generate new ideas both within and across the countries and regions examined.

The first chapter, by Mario Davila (EGADE, Mexico) examines how poverty reduction and empowerment are linked through integrating the low income sector into the value chain. Davila uses a case study approach to analyze how multinational corporations (MNCs) can have a social impact in their local environment and maintain profitability. The study suggests the integration of the low-income sector as suppliers into their value chain as a promising strategy. The chapter explores the barriers to integration and the strategies to overcome them with the aim to both empower and include the low income sector into the value chain. Strategic partnerships with intermediary organizations were identified as a key component in the effort to successfully integrate the low-income sector. Governments, social intermediaries, small and medium-sized enterprises and nongovernmental organizations are some of the organizations that cooperate in such integrative programs, exchanging resources and creating strong links between the low-income sector and MNCs. In addition, the chapter analyzes different factors that could determine successful low-income sector

integration strategies and identifies trust, coping strategies and risk aversion as components that can determine the success of programs.

Tim Weiss (Zeppelin University, Germany) investigates the success of technology entrepreneurship in Kenya, employing the Silicon Valley model as a benchmark. Through his research he has established a concrete set of recommendations which have the potential to improve and tailor entrepreneurship

.....  
 ‘The research encompassed a range of topics with different contexts which has resulted in a rich picture of initiatives and innovations taking place across the globe as efforts to reduce poverty and provide basic services through entrepreneurial approaches are intensified.’  
 .....

strategies to local environments. As the Silicon Valley model of entrepreneurship moves across the world, tensions arise once the local realities are incompatible with some of the key aspects prescribed by technology entrepreneurship business practices. The chapter explores three main sources of tension – single-mindedness vs. hedge your bets, exponential growth vs. organic growth and glorification of failure vs. avoidance of failure – that arise in the context of Kenya’s Silicon Savannah. A list of recommendations for different actors in the sector is presented in order to mitigate the incompatibilities identified. Weiss emphasizes the need to understand different styles of entre-

‘The research presented in this volume encourages policy makers to promote entrepreneurial efforts to bring innovation to different sectors.’

preneurship and the local landscape in order to better promote local business development. In addition, he addresses the role various actors can play to close the gaps such as researchers, consultants, and policy makers to name just a few. The creation of a framework that considers adapting some local elements to the Silicon Valley understanding of technology entrepreneurship is also explored in an effort to improve the potential success of the next generation of technology entrepreneurs.

Alfred M. Mthimkhulu (University of Stellenbosch, South Africa) researches how South Africa fosters social equity and job creation by supporting micro, small, and medium enterprises (MSMEs) through training mechanisms and legislation. The study focused on MSME development and the obstacles that affect their impact on the reduction of poverty and job creation. Using the World Bank Enterprise Survey from 2003, 2007 and 2010, the author ranked the obstacles small enterprises face through a weighted count approach as opposed to the simple count approach. The results cited crime as the main obstacle increase their impact, contesting the typical obstacle of financing, which most studies cite. The author argues that different outcome of crime vs. financing lies on the methodological approach of the study: country specific and weighted count approach. The article then discusses why financing still dominates the literature and other studies as the key obstacle to small enterprises' development. In order to understand these discrepancies, Mthimkhulu argues that it is important to take into account country specifics and not only cross-country analysis in order to allow for more nuanced insights when analyzing the obstacles to MSME development, as well as policy responses.

Julia Diaz (Universidad de Los Andes, Colombia), explores why small businesses enter into social partnerships with nonprofit organizations. The study focuses on the different motives and

the conditions under which social partnerships form using the perspective of small businesses that work in the Colombian food sector. Diaz argues that these social alliances create benefits for both partners in achieving goals that they otherwise would not if they acted independently. The motives for businesses to enter such a partnership range from altruistic and to utilitarian. In addition to the motives, Diaz identifies the local munificence environment as a critical factor to entering such partnerships. Furthermore, the study identifies partnerships as a strategic planning trend for small business survival, as they can provide small businesses with an opportunity space to invest scarce resources for social impact in the local environment. Diaz recommends that policy makers should create favorable conditions that allow social partnerships to emerge, as these partnerships can help small businesses survive in resource scarce environments and at the same time have a social impact.

Aline Laucke (Zeppelin University, Germany) examines how hybrid organizations face tensions as a result of the inherent competing logics - social welfare and commercial - that transcend the organization. A study based on eight nonprofit and for-profit hybrid health organizations in Colombia, Mexico, Kenya and South Africa provided the empirical material for a chapter that identifies the nature, antecedents and implications of hybrid health organizations in developing economies. Drawing on these tensions, Laucke sheds light on the competing logics and strategies that could help alleviate the challenges associated with hybrid organizations, arguing that relying on innovative management techniques can help ease some tensions over time; nevertheless, challenges remain when tensions concern other stakeholders outside the organization. Laucke argues that the leading challenge for hybrid organizations remains the ecosystem in which they are embedded, as they are required to overcome blurry boundaries in order to



‘The research results of the IRENE|SEE network demonstrate the need for local approaches, following the rationale that global practices and recommendations are most successful in their implementation when adapted to fit the needs of the local ecosystem.’

## CONCLUSIONS

foster social and economic development at the Bottom of the Pyramid. The importance of fostering nonprofit organizations in the health care ecosystem remains critical, as for-profits may leave out sectors of the population that cannot pay. Laucke cautions that although hybrid organizations demonstrate a lot of potential, these organizations still face considerable challenges in meeting their social and economic objectives.

Fikru Arja (Adama University, Ethiopia) investigates the energy sector in Ethiopia and explores the challenges that have hindered its growth and service to the population, particularly in rural areas. The government-owned company Ethiopian Electric Power Corporation (EEPSCO) controls the sector as it is in charge of generating and distributing electricity across the country. Although a small number of firms exist that offer alternative solutions for electricity, they are all subsidiaries of EEPSCO. Hence, challenges with regard to institutional bureaucracy, technological limitations and a lack of interest by entrepreneurs have led consumers to engage in the use of alternative energy resources and technologies. The study focuses on the sources, generation and use of electricity in two different regions in Ethiopia and compares these. The two alternative energy sources identified are biomass and biogas. Arja’s study reveals that both options are not sustainable energy resources as there are problems with regard to technology requirements in the case of biogas and a limited supply of biomass. These results prompt a series of recommendations for the different actors involved in the energy sector in order to alleviate the deficiencies in the generation, use and distribution of electricity in Ethiopia. Arja argues that encouraging entrepreneurs to engage in energy delivery, particularly in rural areas, could help solve the lack of service provision. Government policies that would promote, instead of hinder their operation are necessary to closing the service provision gap.

The research presented in this volume encourages policy makers to promote entrepreneurial efforts to bring innovation to different sectors, including those that are government controlled, as well as to support the creation and development of strategic partnerships amongst stakeholders in the ecosystem that may foster innovation, efficiency and knowledge transfer directed at improving service delivery and promoting employment through entrepreneurship. Entrepreneurs should seek out inefficiencies and obstacles in the market that have the potential to be transformed into business opportunities through innovative business models, as well organizational forms. In addition, it is important to develop policies that encourage strategic social partnerships in order to foster local social development and economic growth through the exchange of knowledge and resources, as well as contribute to creation of job opportunities. Furthermore, the research in this volume demonstrates the importance of country level research in order to gain a local understanding of entrepreneurship and how it is embedded in society. The research results of the IRENE|SEE network demonstrate the need for local approaches, following the rationale that global practices and recommendations are most successful in their implementation when adapted to fit the needs of the local ecosystem.

# STUDY 01

01

MARIO CÉSAR  
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—  
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# EMPOWERING THE LOW-INCOME SECTOR

## A BRIEF REVIEW OF A MEXICAN SUSTAINABLE INITIATIVE

### INTRODUCTION

Poverty reduction has become a fashionable topic on the global public agenda in response to the objective of the UN Millennium Development Goals to halve the number of people living in extreme poverty by the year 2015 (UN, 2008). This objective has also been adopted by other international organizations, such as the International Monetary Fund, the World Bank, the Inter-American Development Bank, and the Organization for Economic Co-operation and Development. During recent years, several entrepreneurial perspectives, such as the BoP stream (Prahalad & Hart, 2002) and the social inclusive business approach (Karnani, 2006), among others, have contributed to addressing this problem.

# KEY OBSERVATIONS

# ESSENCE

## NEW PERSPECTIVES

According to Narayan (2005), poor people are the most important resource in the fight against poverty, they have the imagination, courage, knowledge, experience, and a deep motivation to overcome the situation. In this sense, the way to alleviate, or at least reduce the levels of poverty is not to view the poor only as customers, but to see them also as producers; in other words, to integrate them into the value chain of multinational corporations (MNCs). In the literature we can find an increasing number of case studies that confirm the integration of the low income sector (LIS) in the value chain (Porter & Kramer, 2006). In Latin America, an analysis of 33 initiatives by the Social Enterprise Knowledge Network between 2006 and 2009 showed that small and medium enterprises (SMEs) as well as civil society organizations are more agile and open to the internalization of innovations needed to conduct an inclusive business (SEKN, 2011). Some examples of successful cases in Mexico involve the integration of the LIS in the value chain as suppliers to large corporations with goal of generating income, as well as improving the standard of living of the LIS. Some examples of projects where MNCs have utilized the approach of integrating the LIS into the value chain include Sigma Alimentos, with their project „Fomento Lechero”; Danone, with their project „Margarita”; Pepsico, with their project “Girasol”; and Starbucks with their project C.A.F.E.

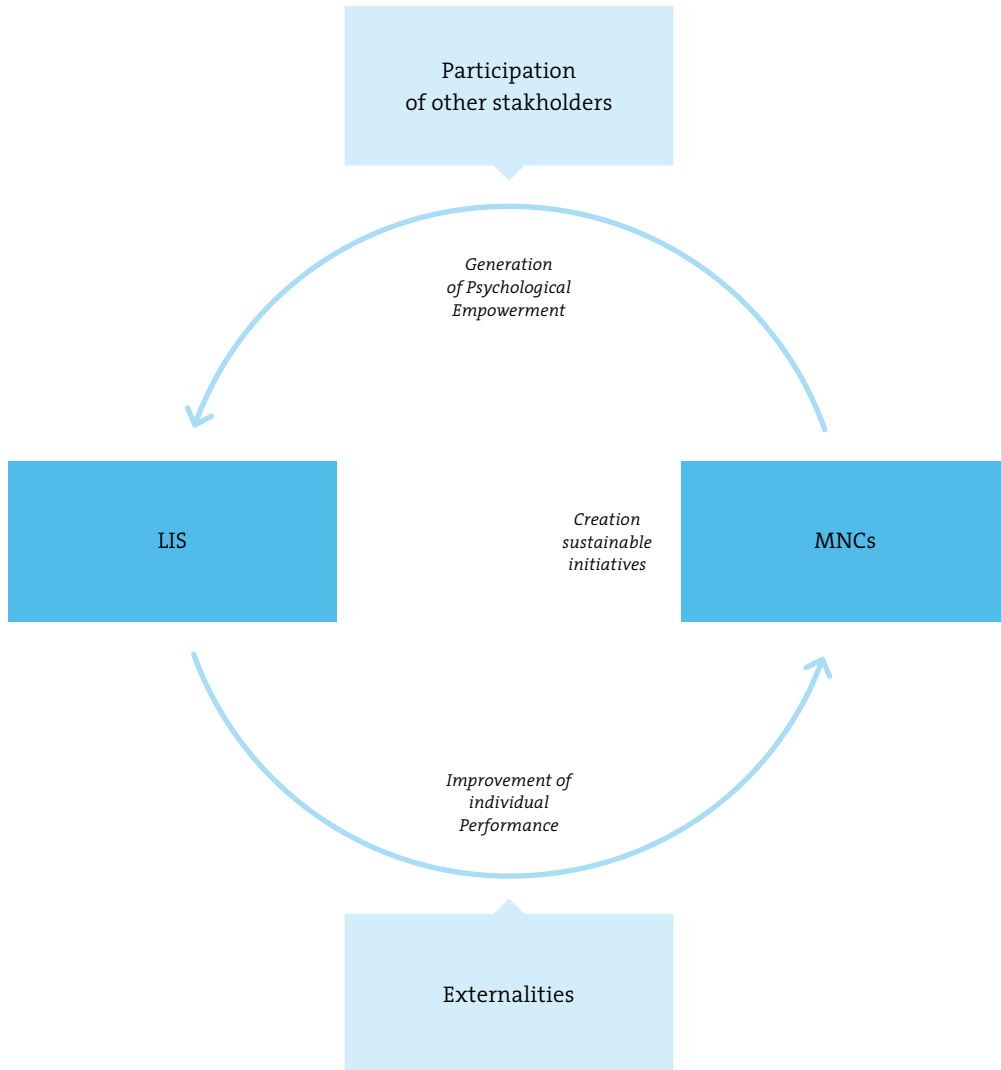
The supplier perspective is a good option for understanding this kind of solution. The sense of psychological empowerment generated by the companies can help them to achieve a successful integration of the LIS into their value chains (see Figure 1).

## THE ROLE OF SOCIAL INTERMEDIARIES IN THE INTEGRATION OF THE LIS

Social intermediaries play a major role in building strong ties between the companies and people in the LIS and must be capable of creating business strategies with shared value between both parties. Some of their activities include finding other stakeholders to offer financing, training, and facilities to improve the skill sets of the LIS. They can also be external actors, like nongovernmental organizations (NGOs) or social actors in the government.

As a part of this research, the case of “Fomento Lechero” (Dairy Development) will be explored in this paper. “Fomento Lechero” is a suppliers development program with more than 15 years of operation, established by Sigma Alimentos, a Multinational Company, dedicated to the meats and dairy industries with large operations in Latin America. The objective of this research project was to analyze how MNCs with sustainable

**FIG. 01**  
**CONCEPTUAL RELATIONSHIP AMONG MNCS, LIS, AND OTHER EXTERNALITIES.**  
**EMPOWERMENT GENERATION THROUGH SUSTAINABLE INITIATIVES**



initiatives can generate better individual performance through empowerment in the LIS. In order to research this topic, it was necessary to identify a social intermediary of the Fomento Lechero program. The social intermediary plays a critical role in the Fomento Lechero program due to the active engagement with the community and therefore has first-hand knowledge

of the conditions of the LIS farmers, as well as essential knowledge of the interests of Sigma Alimentos. Working with the social intermediary allowed for local insights and access to the farmers participating in the Fomento Lechero program.

# THE RESEARCH DESIGN METHODS

## QUALITATIVE STAGE: EXPLORING THE SCENARIOS

At Sigma Alimentos, I conducted interviews with the administrative staff for sustainability issues as well as the managers responsible for the implementation of the specific initiative. Following the snowball principle, I found experts across the sustainability initiative and identified, with the support of program participants, relevant actors (e.g., suppliers [farmers] and government officials) who supported the program (a total of 47 interviews).

## QUALITATIVE STAGE: RESULTS

I conducted in depth interviews twice a day (5:30 to 10:00 and 15:30 to 18:30), when the farmers delivered the milk collected on their farms to a collection center by the leader of the cooperative. From the interviews and the initial analysis of documents, I found that, with the creation of the Fomento Lechero program, Sigma Alimentos staff were given the task of eliminating middlemen in order to generate trust among the producers. In the early years, it was mostly intermediaries who conducted the purchase of milk. This was reversed in just a couple of years through the Fomento Lechero program.

In an effort to eliminate the intermediaries and create trust with the suppliers, in the beginning of the program, the social intermediarity within Sigma Alimentos had several meetings with different farmers in the area. Findings indicate that the small dairy farmers did not feel confident dealing directly with Sigma Alimentos and therefore relied heavily on intermediaries to sell their milk, primarily due to their wish to be paid on a weekly basis. Over time, the MNC built up a good relationship with the farmers, mainly by providing payment each week, without any problems.

Another important aspect to consider as a part of the analysis is the point of view that not all groups that started with the “Fomento Lechero” initiative are part of it now. Some of them decided to work independently as they became confident in their abilities and skills to carry out milk production; they had been empowered by the sustainable initiative. However, they do not work under the same conditions that were initially provided by Sigma Alimentos; in other words, they do not have the same trust in the current milk buyers as they did with Sigma Alimentos.

## QUANTITATIVE STAGE

In order to better understand this type of situation and scenario I used a mixed method approach integrating quantitative and qualitative research, which has become increasingly common in recent years (Bryman, 2006). The goal of mixed methods research is not to replace either of these approaches (qualitative and quantitative), but rather to draw from the strengths and minimize the weaknesses of both.

## THE INSTRUMENT AND DATA COLLECTION

The data from the farmers that belonged to the sustainable initiative were obtained from villages near Lagos de Moreno, Jalisco, in Mexico (see Figure 2), where I was given access to a local group of milk producers with the help of the staff of the Fomento Lechero program. I developed an instrument to measure the different relationships and applied the instrument developed by the Mexican Association of Market Research and Public Opinion Agencies (AMAI, 2009) to validate the socio-economic level of the participants.

**FIG. 02**  
**MAP OF RESEARCH TARGET AREA**



With the insights and contexts drawn from the semi-structured interviews, a conceptual framework was developed to test the model for this research (see Table 1 for a summary of proposed hypotheses). The final survey had a total of 41 items and all scale items were anchored by a seven-point Likert scale (1 = completely disagree, to 7 = completely agree). The control variables are age, gender, and cooperative group – that is the farmer continues to participate in the sustainable initiative, “Belong Group” or has left the initiative, “Belonged Group”. The

independent variable is the individual performance, which was measured according to the change in milk production over the last 5-10 years (average liters per day), and the increase in number of cows on their farms.

The dependent variables were measured using customized items from other authors (Spreitzer,1995; Bansal,2004; Duhacheck,2005; Raju, 1980) and included psychological empowerment, trust, coping strategy, and risk aversion.

**TABLE 01**  
**HYPOTHESES PROPOSED.**

Relation	Hypothesis redaction
Empowerment › Performance (+)	H1a: There is a positive relationship between Psychological Empowerment and Performance in LIS people that belong to the sustainable initiative (with Sigma Alimentos).
Empowerment › Performance (+)	H1b: There is a positive relationship between Psychological Empowerment and Performance in LIS people that belonged to the sustainable initiative (with other milk buyer).
Empowerment * Trust › Performance (+)	H2a: The greater the trust, the stronger the relationship between Psychological Empowerment and Performance in LIS people that belong to the sustainable initiative (with Sigma Alimentos).
Empowerment * Trust › Performance (+)	H2b: The lower the trust level, the weaker the relationship between Psychological Empowerment and Performance in LIS people that belonged to the sustainable initiative (with other milk buyers).
Empowerment * Coping Strategie › Performance (+)	H3a: The greater the coping strategy, the stronger the relationship between empowerment and performance in LIS people that belong to the sustainable initiative (with Sigma Alimentos).
Empowerment * Coping Strategie › Performance (+)	H3b: The greater the coping strategy, the stronger the relationship between empowerment and performance in LIS people that belonged to the sustainable initiative (with other milk buyers).
Empowerment * Risk Aversion › Performance (+)	H4a: The greater the risk aversion, the weaker the relationship between empowerment and performance in LIS people that belong to the sustainable initiative (with Sigma Alimentos).
Empowerment * Risk Aversion › Performance (-)	H4b: The greater the risk aversion, the weaker the relationship between empowerment and performance in LIS people that belong to the sustainable initiative (with other milk buyer).

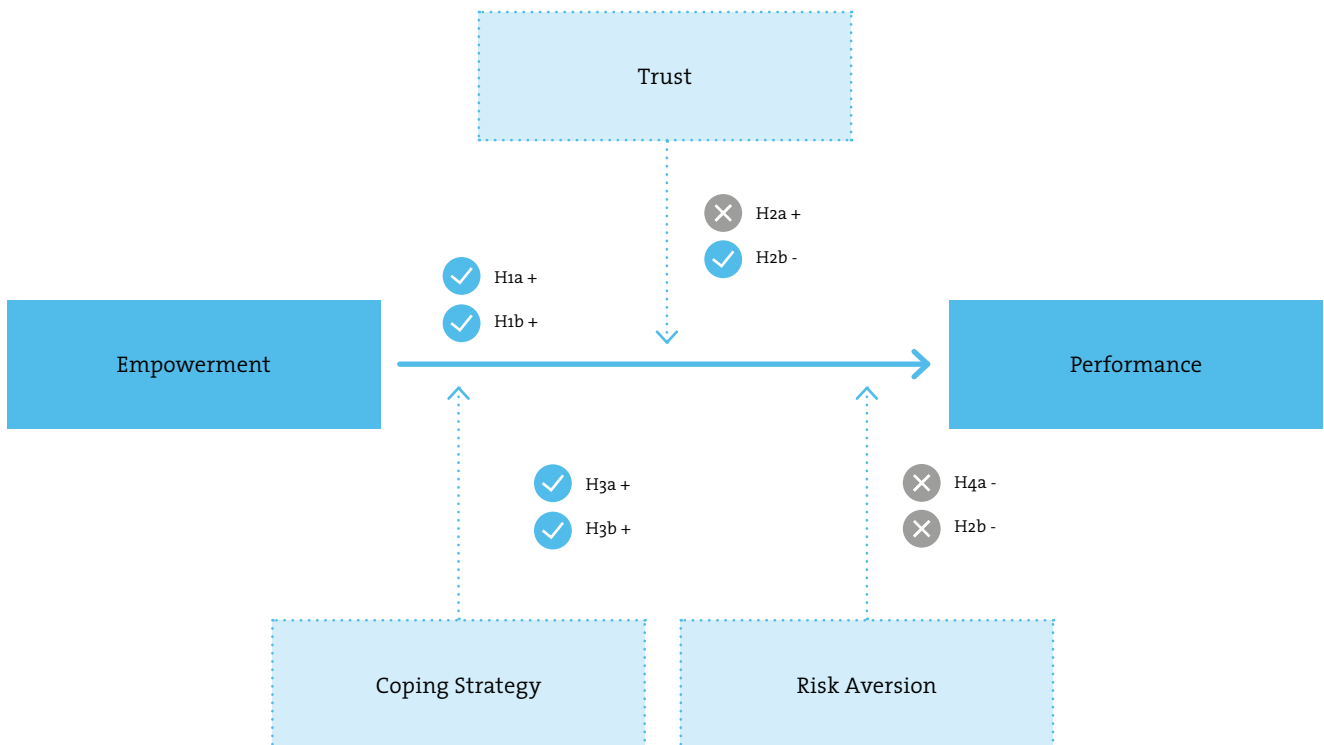


‘Only to reduce the levels of poverty is not to view the poor only as customers, but to see them also as producers; in other words, to integrate them into the value chain of multinational corporations’

FIG. 03  
SUMMARY OF RESULTS

Using PLS SEM  
a: Belong Group / b: Belonged group

⊗ Rejected  
✓ Accepted



# MAIN RESULTS RECOMMENDATIONS AND CONCLUSION



## MAIN RESULTS

From the initial theoretical model proposed, I validated five out of eight hypotheses (see Figure 3). The results obtained for H1a and H1b confirm that independently of whether or not the participants currently belong to the sustainable initiative, they have high levels of empowerment, and these levels have a positive effect on their performance.

When the moderator effects of the variables explored in the Belong Group (N=85) were tested, only the coping strategy (H3a) had a positive effect on the relationship between empowerment and performance. This result was also confirmed with the Belonged Group (N=119). This indicates that coping strategy is a common behavior among all of the farmers, regardless of whether they continue to participate in the sustainable initiative. This result could be explained through the farmer participation in the sustainable initiative, participants learned new techniques for use in their milking process and also attended to their cattle better when they were sick.

Furthermore, I found that the variable of trust was only significant with the Belonged group (N=119). The negative effect of this variable as a moderator between empowerment and performance is likely due to the fact that these farmers felt empowered and generated better performance as part of the positive effect of their participation in the sustainable initiative, and they do not feel the same trust for their current milk buyer.

Finally, with risk aversion as a moderator, this variable is significant only with the Belonged Group (N=119), but the result was not as expected. It shows that, although these participants are “graduates” of the sustainability initiative, they are still risk averse. However, they also frequently investment in new technologies, contradicting this finding. The phenomenon reported here is very complex and is only in the exploratory stage.

## RECOMMENDATIONS

MNCs should partner with federal and local government entities and other stakeholders to obtain the successful integration of the LIS in the value chain. This should be possible with the development of sustainable initiatives like Fomento Lechero.

In order to overcome some of the challenges, for example, resistance to change, especially among older people, special treatment will be needed, and the involvement of younger generations. In some cases, free demonstrations and risk-free investments can help eliminate this behavior. Intermediaries can play a critical role in overcoming these challenges.

SMES can also be intermediaries in the value chain, but these enterprises must be aligned with the same sustainable program (managed by the MNC). NGOs can also partner with the MNCs and can offer knowledge and play an impartial role in the relationship between the MNCs and the LIS.

## CONCLUSION

Companies that wish to integrate the low-income sector in their value chain can draw on this research to identify some of the important factors that can affect the successful establishment of these strategies. Integrating the affected process owners within the company and partners in the external supply chain into the development and implementation of the sustainability initiatives is critical to their success. In addition, continuously optimizing the strategy by drawing on process-improvement techniques will also contribute to continued accomplishment of program goals for both the LIS and the MNC. This increases both the technical and economic feasibility as well as the acceptance of the new supply chain strategies.

This research could also generate future research possibilities to support the understanding of sustainable initiatives to generate empowerment, mainly in the LIS. One of these avenues could be the exploration of the theoretical model in different industries and cultural contexts to compare with the results here obtained. This work can be used as an initial effort to clarify the generation of new instruments that can help to better measure the impact of this kind of program.

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# STUDY 02

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ZEPPELIN UNIVERSITY  
GERMANY

# COMBINING THE BEST OF THE VALLEY AND THE SAVANNAH

COMPARATIVE ADVANTAGE FOR THE  
NEXT GENERATION OF TECHNOLOGY  
ENTERPRISES IN KENYA

SILICON VALLEY MANTRA

“Entrepreneurship is living a few years of your life like most people won’t, so that you can spend the rest of your life like most people can’t.”

# INTRODUCTION & OBSERVATION

# INTRO

## INTRODUCTION

A remarkable development has captured Africa. Newspaper headlines such as “Africa Rising” or “Lions On The Move” are just a few of the labels that usher in a new era (McKinsey, 2010; The Economist, 2013). An era, that signifies prosperity, wealth and change achieved through market mechanisms which pushes longstanding giants, such as, international development aid to the sidelines (Moyo, 2009). Decades of liberalization, privatization, and deregulation seem to be bearing fruit as new industry sectors are flourishing. Countries like Nigeria and Zimbabwe used to be on top of the international agenda for low-hanging fruits in the extractive industries. Today, however, it is information and communications technology (ICT), fast moving consumer goods (FMCG), international private equity and venture capital funds, consultancy companies, and e-commerce that populate these rapidly developing economies.

As globalization gets hold of these seemingly last enclaves, it is information that travels faster than ever before. Twitter, blogs, the media, TED talks, and international as well as local events are just a few of the facilitators that enable knowledge to flow and become global. One prominent narrative that sticks out and has captured the attention of managers, fresh university graduates, and those seeking employment alike is entrepreneurship. In fact, an entrepreneurial wave has hit the shores of Africa, and is replacing accounts in the popular press on corporations and governments with seductive tales on successful entrepreneurs (Nsehe, 2015). In fact, entrepreneurship has become much more than just a pragmatic solution to the exploitation of business opportunities, it is much rather a ‘hip’ and ‘cool’ life style.

Entrepreneurship goes hand in hand with innovation and is originally rooted in the idea that the individual entrepreneur

combines resources in an unprecedented way. This innovation, in turn, creates value and becomes a generative source for industry emergence, national development and comparative advantage (Schumpeter, 1934). It is particularly the concept of technology entrepreneurship – advancing society and fostering economic growth by means of exploiting new developments in science and engineering (Beckman, et al. 2012) - that has become a dominant sub-theme in the discourse surrounding entrepreneurship. In particular, influential entrepreneurs such as Mark Zuckerberg, investment gurus such as Peter Thiel, and industry clusters such as Silicon Valley bring technology entrepreneurship to life and have become central creators of entrepreneurial myths and philosophies.<sup>1</sup>

Myths are fictional and seductive stories equipped with unfulfilled and unfulfillable promises that give meaning to human interaction and prompt action (Mosco, 1998). In the case of technology entrepreneurship two powerful myths are at play. Technology holds the promise that ICT will radically transform governments, businesses, religion and gender relations for the social good (Miscione, 2015; Mosco, 2005). It is said that the impact of ICT solutions is an inevitable force that every economy on the globe will have to face. A decentralized society and the democratization of knowledge is one of the central tenets in the information age (Bekkers and Homburg, 2007). Entrepreneurs are providing important bits and pieces to the story. They translate new advances in technological evolution into marketable products and services with the

1) Mark Zuckerberg (CEO and founder of Facebook) and Peter Thiel (co-founder of PayPal and involved in multiple investment funds) are highly visible and central figures in technology entrepreneurship, actively involved in narrating the field dynamics.

goal to transform society. Entrepreneurship in itself is rooted in the belief that only “autonomous and experimenting actors [entrepreneurs] are important for facilitating change that then promotes economic wealth” (Brandl and Bullinger, 2009, p.161). Individualism, change and wealth creation constitute the central tenets of an entrepreneurial society. Taken together, technology and entrepreneurship, morph into a powerful narrative on change, prosperity, equality and wealth creation. The narrative not only transports values and specific worldviews, it also encompasses concrete action guidelines on how these ideals can be achieved. These recipe-like prescriptions have traversed the globe and constitute by now largely taken-for-granted benchmarks for technology entrepreneurs in distant markets such as Kenya. In other words, technology entrepreneurs in Kenya seek to imitate and put into practice the recipes of success that they perceive as important. These mostly emanate from key figures in Silicon Valley and contrast with recognized and dominant entrepreneurial strategies in Kenya. Thus, stark differences emerge on what exactly constitutes a successful entrepreneur. The underlying reason is rooted in the co-existence of conflicting and opposing action guidelines within one location. That is, the “Silicon Valley way” suggests a different line of action on how to become a successful entrepreneur than the pre-existing “Kenyan way”. These contradictions cause tensions that entrepreneurs and other actors in Kenya’s ICT sector have to resolve.

This chapter sets out to explore these cultural dynamics at play in Kenya’s ICT sector and provides rich descriptions on the incompatibilities and tensions. This approach will provide a framework to critically examine largely taken-for-granted prescriptions and, in turn, inform the formulation of pragmatic recommendations with the goal to reconcile tensions. Specific

action points seek to anchor and avail a combination of the Silicon Valley and Kenyan way to actors involved in Kenya’s ICT sector with the hope to overcome some of the current barriers to industry growth.

#### THE PARADOX OF DEVELOPMENT IN HEALTH MARKETS

Silicon Valley has emerged as a powerful hub for innovation and economic growth not only in the United States but around the globe. In fact, it has become the epicenter for disruptive technologies and is now home to many multinational corporations that operate worldwide. These efforts are nurtured by an interdependent network of a variety of actors, among them investors, law firms, consultancy companies, media, and universities. AnnaLee Saxenian – arguably one of the most important researchers on the cultural dynamics at play in Silicon Valley - encapsulates its uniqueness in stating that “Silicon Valley continues to reinvent itself as its specialized producers learn collectively and adjust to one another’s needs through shifting patterns of competition and collaboration” (Saxenian, 1994, p.162). It has morphed into a start-up assembly line, a magnet for talent and capital, thereby producing innovative products at an unprecedented speed. The degree of innovation, however, varies significantly. It covers disruptive technologies (i.e., PayPal), with wide implications for society and the economy, down to marginal product improvements (i.e., Snapchat) that entertain a certain milieu of consumers. Following rituals of pitching events, competitions and investment negotiations, both extremes are likely to receive investments. Actors present in Silicon Valley have created significant awareness amongst the US population for its products and services and are by now an

essential contributor to economic growth. A multitude of publications and academic research have captured Silicon Valley's dynamic (see Engel, 2015; Ferrary and Granovetter, 2009; Saxenian, 1994) and beyond that filed recommendations for policy makers, entrepreneurs, and investors who seek to establish similar industry clusters. Silicon Lagoon in Nigeria, Silicon Savannah in Kenya, Chilecon Valley in Chile, as well as Silicon Wadi in Israel are just a few among the many other industry clusters around the world that seek to imitate Silicon Valley's success and equally aspire to economic prosperity through the exploitation of technological advances.

Establishing a vibrant industry cluster requires a combination of factors in order to put in place the necessary lifelines and network configurations that allow new business ideas to flourish and scale. Arguably, investors such as angel investors, venture capitalists, and private equity funds are not only pivotal partners for entrepreneurs but also for the industry cluster as a whole. The investments of successful equity investment funds such as Google Ventures, I/O Ventures, or 500 Startups send important signals of a venture's legitimation and verification into the domestic industry cluster and global sphere. Reliable figures on early stage and high risk ventures are in most cases absent, forcing equity investors to bet on high risk ventures' future capital flows and the probability of a buyout or an IPO. In the absence of reliable data, investments become a litmus test for every venture and provide important pointers on industry trends, ventures with a high probability of future success and attractive ICT clusters. Investments demonstrate to fellow entrepreneurs which products, business models and entrepreneurial approaches receive recognition. Consequently, the interaction of investors with entrepreneurs attracts a lot of attention and public interest. In fact, the interaction is the generative ground for glorified stories and tales on investment criteria, entrepreneurial characteristics and strategy. Questions such as "How to attract investments?" and "How to succeed as

a technology entrepreneur?" become highly productive settings which culminate into heavily recited mantras and taken-for-granted rituals that capture the attention of those that seek to become technology entrepreneurs. A staggering example is the glorification of failure among entrepreneurs and investors. Embedded in the slogan "fail fast", failure signifies a positive, inevitable and pivotal experience that triggers learning and innovation and subsequently enhances the likelihood of future success.

The central importance of investors in shaping and broadcasting stories on success relates back to the evolution of the highly sophisticated financial product equity capital (Kenney and Patton 2006). This US-based financial innovation matured over a period of sixty years into what is today. It has become a sought after and integral asset class that has been exported to countries around the globe in order to facilitate early-stage and high risk venture growth (Aizenman and Kendall, 2012; Bruton, Fried, and Manigart, 2005). However, it needed several evolutionary steps to find the right fit with the US entrepreneurial and investment culture. The initial push towards new financing mechanisms and a focus on early stage and small ventures was triggered by the Great Depression in 1929 (Hsu, 2005). The belief that investments in advances of science coupled with transfer of business acumen to early stage entrepreneurs would result in rampant economic growth inspired policy makers and investors alike. The fundamental idea behind venture capital was to shift parts of the savings that investment trusts and insurance companies had accumulated into innovative and new companies. The at that time progressive mindset was advanced by a few legislators and high-net worth individuals who demanded a transition of the rather conservative investment ideal towards more risk taking. It took several iterations until in 1946 the first venture capital fund, the American Research & Development Cooperation, was founded. The justification presented to the public was rooted in the perceived need to financially support



new ideas and developments in the economy which required a “high birthrate of new undertakings” that were inherently risky (ibid, 2005). It was argued that facilitating these investments and pushing entrepreneurship onto the national agenda was not solely a profit-driven enterprise; it was much rather the creation of a social good for the public that needed the broad support from all citizen. This argumentation provided the initial justification to channel public funds into financing the growth of high risk ventures (ibid, 2005).

Today, venture capital funds have developed into sophisticated financial actors with varying sector foci and business models. They have become an integral part of the financial scaffold in vibrant financial markets such as the United States, Europe, Israel, Canada, China, and India, where total investments amounted to USD 49 billion in 2013 (Ernest & Young, 2014). This investment model and the strong belief in entrepreneurship and risk taking as a means to foster economic development is being imported into emerging and developing economies by international venture capital funds. Among those economies is also Kenya. Kenya’s financial infrastructure, however, has not undergone comparable developments. On the contrary, Kenya’s financial industry has not at all been exposed to a similar evolution in finance and therefore neither developed a similarly suitable financial product for high risk ventures on its own nor aligned its business norms, financial architecture and legislation to accommodate and harness the opportunities availed by equity capital. Domestic risk capital rather remains an extremely scarce to non-existent resource in Kenya, making foreign investors the number one provider of equity capital in the market. Consequently, Kenyan high growth ventures with a need for equity capital have to abide and follow international investors’ expectations, demands and prescriptions for a lack of other options. International investors, however, anchor and base their actions on beliefs and assumptions emanating from Silicon Valley which is arguably different from the operational

reality in Kenya’s Silicon Savannah. In particular, the transfer of business acumen from investor to entrepreneur can give rise to tension and substantial confusion on the “right” approach to grow a venture.

In fact, Silicon Savannah’s growth and prominence is a novel phenomenon and started with the connection to the global fiber grid in 2009. Since then it has experienced an influx of international players to its economy which came hand in hand with an increase in international media attention for its innovative digital economy (for a detailed description see Ndemo and Weiss, 2016) and rising middle class (AfDB, 2011). It has become the host of international private equity and venture capital funds for the East African region (Africa Assets and Deloitte, 2013) and is populated by a number of the major technology multinational corporations such as Google, Microsoft, Samsung and Intel. This is further underscored by the Kenyan government’s Vision 2030 that seeks to build a large technology park on the outskirts of Nairobi, dubbed Konza City (Khamala, 2011). A standard set of organizations - consultants, investors, incubators, and accelerators - bring Silicon Savannah to life and provide the tool kit for entrepreneurs to navigate the nascent ICT sector. These service providers are often run by Kenyans and international expatriates with the support of mostly international funding sources (private, philanthropic, and public). Transnational actors (i.e., media and large multinationals) and individuals (i.e., international experts, expatriates, and repatriates) act as carriers for the import of Silicon Valley-type ideas and practices. This phenomenon leads to the co-existence of two narratives that prescribe distinct and opposing actions to entrepreneurs in Kenya. In other words, two fundamentally different worldviews on how value creation and economic success should be reached clash. That is, the “Silicon Valley way” suggests a different line of action on how to become a successful entrepreneur than the pre-existing “Kenyan way”.

# KEY OBSERVATIONS & METHODOLOGY

## ESSENCE

### METHODS

Silicon Savannah is an ideal ground to observe the influence of worldviews from Silicon Valley on technology entrepreneurs, due to the presence of expatriate and Kenyan repatriate investors, consultants and entrepreneurs. Moreover, the omnipresence of international media further enhances the exposure to action guidelines from abroad. This study focused on the manifestation of technology entrepreneurship in Kenya and explored the tensions and incompatibilities that arise once technology entrepreneurship is put into practice. The research design was developed in strong cooperation with Klaus Weber from the Kellogg School of Management, Northwestern University (USA). It is a grounded theory investigation that uses Silicon Savannah as a case study. Interviews and ethnographic data collection provided the essential empirical material. A total of 156 interviews were conducted, lasting between forty-five minutes and two hours with an average of seventy minutes. A selection of twenty-one formal and informal observation sites supplemented the interview data. The actors that have been part of the research were (1) Kenyan and international entrepreneurs (seed-stage up to growth-stage); (2) Kenyan and international investors (angel and venture capital/private equity); (3) industry representatives (government, incubator, accelerator, co-working spaces, media and donors) and corporate representatives. The data collection was partitioned into two stages. The exploratory stage lasted one month and was conducted in September 2012. Twenty-two international and local investment fund managers in the private equity, venture capital, and impact investment arena were interviewed. The second data collection phase lasted three months and was carried out from May to July 2014. Key individuals were interviewed in the sector to foster a pronounced understanding of the cultural, social, and economic dynamics influencing technology entrepreneurship in Kenya.

### KEY OBSERVATIONS

An early insight that emerged from the data was the co-existence of two distinct and opposing worldviews in Silicon Savannah which subtly impacted the actions and decisions of those involved in technology entrepreneurship. The analysis surfaced two narratives, a “Silicon Valley way” and a “Kenyan way” of becoming a successful entrepreneur. The Silicon Valley way was guided by assumptions and beliefs that were based on the success stories from international companies, investors and entrepreneurs. International success stories provided important cues, benchmarks and reference points that motivated entrepreneurs and investors alike to imitate previously successful actions and practices in order to reach similar fame. The pre-existing “Kenyan way” is rather anchored in a prominent domestic entrepreneurial strategy that is widely acknowledge and taken-for-granted. It has matured over time into a highly sophisticated way of doing things that ensures income generation and survival. The Kenyan entrepreneurial strategy, however, is fundamentally different when compared to the technology entrepreneurship strategy that Silicon Valley promotes. Not only are technology entrepreneurs in Kenya exposed to two different narratives, the narratives’ prescriptions are also conflicting and suggesting opposing lines of action, thereby significantly complicating the performance of technology entrepreneurship. This chapter will provide rich descriptions on three key differences and as a result expose tensions that arise before deducing recommendations that seek to reconcile the incompatibilities of action guidelines.

**Single-mindedness vs. Hedge your bets** Phrases such as “You got to work hard,” “Your business is your baby,” and “You have to live and breathe your business” are just a few among the many mantras that depict the importance focus has in the Silicon Valley narrative. The principle of focus demands

that entrepreneurs bundle all their resources (i.e. time, capital, energy) towards the growth of one venture at a time. Unconditional commitment and full sacrifice is expected of the technology entrepreneur. As a logical consequence, venture growth becomes the center of attention, interest, and action. The technology entrepreneur is expected to prioritize

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and selectively attend to stimuli outside of the ventures scope, promoting single-mindedness to one of the central tenets in technology entrepreneurship that both successful entrepreneurs and investment funds embrace’, enforce and preach. The shared belief states that a scalable enterprise requires relentless focus and as a result gives meaning to the widely used term “serial entrepreneur” - an individual who sequentially attends to multiple economic opportunities.

In Kenya, however, another cultural dynamic is at play. It is quite common amongst Kenyans to engage in so-called “side-hustles”. This phenomenon is not only prominent amongst entrepreneurs, it is also very pronounced among employees and even those seeking employment. Side-hustles are income-

generating activities that can start informally and become more formal engagements over time; however, a side-hustle does not take up a majority of the individual’s time or attention, meaning individuals can entertain multiple side-hustles at the same time. Traditionally, side-hustle can range from low volume trading and market transactions, such as, mobile phone resale for a fee to full-fledged side-businesses such as chicken farms, kiosks or car washes. These side businesses meet all the characteristics of a full-fledged, registered, and taxable business. In the “Kenyan way” of entrepreneurship an individual is supposed to enter multiple, unrelated engagements of varying revenue sizes across different sectors (i.e., agriculture, education, and finance) in order to generate considerable income. It can replace or complement formal employment. This hedging strategy seeks to buffer the individual from external shocks and ensure sufficient income for the individual and family.

This behavior, for example, allows Kenyan entrepreneurs to cross-subsidize other activities that are not yet profitable with their side hustles. In the case of Silicon Savannah, it is common that profits from an entrepreneur’s consultancy company subsidize start-up costs for a new tech venture. However, in contrast to Silicon Valley’s “serial entrepreneur” ideal, in Kenya the parallel or concurrent entrepreneur engages simultaneously in different business activities and starts enterprises in several unrelated sectors. This taken-for-granted and opportunity-driven behavior constitutes the “Kenyan way” and is characterized by the ability to seize market opportunities spontaneously and hedge risks across a portfolio of multiple businesses. This behavior can be attributed to (1) market volatility - market attractiveness may change rapidly, for example, due to external shocks such as government intervention; (2) resource scarcity – except for endeavors in

real estate, property development, and agriculture external and formalized funding for new ventures is limited; (3) the social network in which an entrepreneur is embedded in – high embeddedness facilitates access to a variety of new business opportunities; and (4) the entrepreneur’s centrality in the family network – family ties may create a web of financial and social obligations beyond the immediate family that the entrepreneur has to cater for. These peculiar economic and social dynamics limit the entrepreneur’s ability to focus and follow the single-minded enterprise trajectory prescribed by Silicon Valley’s technology entrepreneurship model. It creates tensions among entrepreneurs in Kenya and international investors as they operate with conflicting expectations when it comes to building a venture. These different mind-sets follow opposing action guidelines that are difficult to harmonize and impact the entrepreneur’s ability to found high-growth and rapidly scalable ventures that predominantly equity investors would want to finance.

**Exponential growth vs. Organic growth** Silicon Valley’s success story feeds off of rapidly expanding enterprises that, once successful, graduate to national and international fame, such as, PayPal, Facebook, and Microsoft. In particular ICT realizes unprecedented and exponential growth rates, unimaginable in other sectors. Potential growth rates are directly linked to a company’s valuation; however, growth does not necessarily connote revenue growth. In fact, various start-ups operate without a direct revenue model and instead banked their exponential growth on user acquisition. Prominent examples

‘ICT realizes unprecedented and exponential growth rates, unimaginable in other sectors.’

are WhatsApp, Twitter, and Instagram. These ventures require significant external investments to replace revenue which, in turn, guarantees continuous operation. This development enabled a significant shift in a venture’s growth strategy towards data generation (Gereffi, 2001). Data generation now precedes revenue generation and is largely enabled through a fast paced and aggressive growth strategy with the goal to maximize user rates, expand global outreach, and anchor the venture as an integral part in the virtual digital infrastructure. Revenue becomes a peripheral problem and the focus shifts

to exponential growth and so-called “exits” - an important phenomenon that turns company shares into cash. It describes a profitable sale of the company’s shares by founders and initial investors to external investors. This may occur, for example, through a mergers or acquisition – another company taking over the start-up, such as, Facebook’s acquisition of WhatsApp – or through an IPO – a listing on the stock market, such as, Twitter which was launched in 2006 and went public in 2013. This compensates entrepreneurs and investors alike for their risk-taking behavior and the opportunity costs that have been incurred. In short, the “Silicon Valley way” prescribes a rapid and aggressive venture growth strategy with the goal to enhance the strategic value of the venture for a potential buyer.

‘The “Kenyan way” prescribes in its ideal form an organic growth model.’

In Silicon Savannah, it proves difficult to infuse the entrepreneurial mind-set with a belief in exponential growth as the Holy Grail for entrepreneurial success. The “Kenyan way” rather instigates entrepreneurs to test the waters first before they dedicate additional resources to a venture. An “all-in” approach that makes the venture a personal “obsession” is rather discouraged and remains a rare occurrence. Entrepreneurs should rather remain cautious and favor the dominant side-hustling culture which as a logical consequence makes an exponential growth strategy counterintuitive. Entrepreneurs should follow a revenue model and not set out to start a hundred million-dollar venture. The “Kenyan way” prescribes in its ideal form an organic growth model and the creation of multiple businesses. Focusing on or advocating for exponential growth conflicts not only with the dominant entrepreneurial mindset in Kenya but also fails to take into account the existing infrastructure of the Kenyan finance market and Silicon Savannah itself. Technology enterprises cannot plug into an existing infrastructure of large scale investment funds that would sustain an externally funded growth path, neither can the entrepreneur count on a high awareness and trust in software products among its populace. The “Kenyan way” rather suggests a focus on organic growth models by solving fundamental problems while generating revenue.

Another factor is the limited ability of businesses to functionally specialize. For example, in order to build an online hotel

booking service, which is an integral part of the virtual digital infrastructure in the U.S., hotels have to first digitize their internal bookings through adequate software. In Kenya, however, online hotel booking sites face both a lack of awareness among hotel owners and a gap in adequate software products for the digitization of bookings. As a result, the technology entrepreneur cannot create an online booking site with the hope to integrate into an already existing infrastructure. Much rather technology entrepreneurs have to first get hotel owners to digitize their current processes and thereby solve a peripheral problem before integrating hotels into their online booking platform. A similar issue exists within distribution channels. Enterprises that seek to copy business models such as Amazon or eBay rely on reliable delivery services to both urban and rural customers, such as, DHL, UPS or FedEx. In many cases enterprises have to maintain and manage their own fleets which constitutes a major cost factor and a significant contributor to diverting the entrepreneur's attention away from the core business, thus severely complicating the implementation of exponential growth ideals.

In sum, Silicon Valley epitomizes a tightly knit network with a variety of actors who provide sufficient financial and human capital to pave the road for an exponential growth strategy even without revenue generation. Silicon Valley needed fifty years to develop network configurations that are highly efficient in a U.S. social, economic, political, and cultural environment. Actors in Silicon Savannah, however, are embedded in a different reality. Although similar ties exist, Silicon Savannah has not yet cultivated strong links to universities, the financial sector, or consultancy firms, and its start-up culture is not yet a major contributor to economic growth. As a result, start-up entrepreneurs do not strike a readily available pool of human talent, risk capital or an organizational landscape that allows for exponential growth or functional specialization to occur.

**Glorification of failure vs. Avoidance of failure** No one wants to fail. Yet, failure has become an essential source for learning and is a key ingredient in Silicon Valley's recipe for success. According to Elon Musk, who is a founder of Tesla Motors and Space X as well as co-founder of Pay-Pal and therewith a key figure in the field of technology entrepreneurship, failure is an option, because "if things are not failing you are not innovating enough" (Brandon, 2015). One of the most important advances in technology entrepreneurship was to decouple business failure from personal failure. In fact, a failed enterprise may increase an entrepreneur's chances to receive funding for the next venture. The mantra "fail fast" brings failure to an operational level and further underlines the importance to quickly learn from failure during business operations. The

ICT sector is not the only sector that glorifies failure; it has spread to other sectors as well and is now seen as pivotal to advance, innovate and foster development. Failure has been incorporated in different ways and forms into a variety of strategy tools and business practices, such as, the lean startup model. Equity financiers, so the story goes, have also embraced the concept and developed the conceptual "spray-and-pray" model. The idea is to sustain a portfolio of risky ventures with the expectancy that eight or nine out of ten enterprises will fail. Exponential growth, however, allows the success of one or two enterprises to offset the losses of many. Consequently, failure becomes a tenet within the "Silicon Valley way" that technology entrepreneurs and investors alike embrace and advocate for.

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In Silicon Savannah, however, cultural dynamics have prevented entrepreneurs and investors from anchoring failure in the entrepreneurial mindset. Failure is rather stigmatized. It is tightly linked to the individual's capabilities, cannot be brushed off easily and overwrites prior credentials. A failed enterprise greatly reduces the chance for future success as partners and investors will be careful to get involved. The "Kenyan way", therefore, suggests to strictly avoid failure. Investors underline this view as they lack the experience of investing in high risk and early stage start-ups, mostly because of more secure investment alternatives that promise high returns, such as, real estate. Also, international capital providers who should be attuned to making risk capital available are more risk averse in Kenya as they have to secure follow-on funding for a still emerging market. Failed enterprises in their portfolio send a strong signal not only to their limited partners but also to the industry cluster. Foreign equity financiers, therefore, have to be also very cautious about who enters their portfolio; otherwise, they may quickly run out of funding and start-ups that are willing to sign term sheets with them. In sum, cultural and industry dynamics favor risk-averse entrepreneurial actions that greatly reduce the likelihood of failure, creating tensions with those that perceive failure as an important source for advancement and learning.

# RECOMMENDATIONS FOR SECTORS OPINION

Technology entrepreneurs in Kenya have to navigate a complex web of oftentimes conflicting prescriptions, those that emanate from the domestic context, the “Kenyan way” of entrepreneurship, and those that emanate from the international arena, the “Silicon Valley way” of technology entrepreneurship. The omnipresent prescriptions significantly impact entrepreneurs’ decision making and the enterprise’s growth trajectory. Making sense out of paradigms, concepts, and “dos and don’ts” is, especially for young start-up entrepreneurs and also for international investors a challenging task. Exposing tensions between Silicon Valley and Silicon Savannah offers a framework that allows an elaboration on specific measures that aim at blending opposing views and finding a unique, own way in performing technology entrepreneurship; a way that takes into account imported ideas while respecting pre-existing ways of economic activity. The following is a short list of recommendations that are pointers towards harmonizing tensions and, where possible, allow entrepreneurs to turn tensions into an advantage. The recommendation list takes an eco-system perspective and therefore addresses various stakeholders, among them incubation and accelerator programs, universities, mentors, policy makers, researchers, entrepreneurs and investors.

## 01 INCUBATION AND ACCELERATOR PROGRAMS:

Target employees and MBA graduates. The current incubator and accelerator model works on the assumption that fresh university graduates require three to six months of training in order to become entrepreneurs and build viable enterprises. Introducing fresh graduates to new ways of thinking that are in line with the “Silicon Valley way” can conflict with

cultural values and business norms that are prevalent in Kenya. This may require the investment of immense resources with unpredictable output. A way to think differently about upgrading entrepreneurs’ skill set would be to encourage employment. On the job training teaches important aspects of managing an enterprise such as process thinking, strategizing, and collaborating. In fact, the seed to become an entrepreneur is often planted during employment where the wish to outperform arises and subsequently nourishes the motivation to take entrepreneurial risk. Targeting individuals that are employees or recently exited employment with a three-to-six month incubation program would greatly enhance the leverage and impact training components can have, mostly because they are building on an already existing pool of relevant knowledge. A way to reach this target group would be to recruit MBA graduates or use job fairs and industry conferences as a platform to reach professionals that seek to start new ventures.

## 02 UNIVERSITIES

Tighten link between computer science and business studies. Universities are educating the next generation of entrepreneurs. Interweaving new advances in science and engineering early on with the business opportunities of the ICT sector will open new career paths, make the ICT sector more legitimate, and equip Silicon Savannah’s tech-savvy developers with a much needed business sense. Tightening the link between computer science and business studies should occur in both departments in order to enhance the opportunity for both expert groups to find a common language to exchange ideas and collaborate. An example where this is happening, albeit rather informally, is the monthly entrepreneurship forum

at the iHUB, curated by Bitange Ndemo. The forum brings together business leaders and technology enthusiasts to open up new ways of collaborating and showcasing the many business opportunities that are available in Kenya.

## 03 EXPERTS AND MENTORS

Fill the void with entrepreneurs. Unlocking East Africa’s market is a challenging road to embark on and guiding entrepreneurs can be a distracting task. Individuals who have garnered considerable experience in the local and international environment are needed to fill the critical void in senior-novice entrepreneur coaching. This void is currently hard to fill, however, baking into the Kenyan technology entrepreneurship way an expectancy that voluntary engagement with early stage founders is essential for the survival and success of the ecosystem can be of great value. One-on-one coaching sessions are important tools to facilitate knowledge exchange and disseminate lessons learnt in order to institutionalize successful business practices.

## 04 CONSULTANTS

Develop Africa-centric strategy tools. Consultants have a unique position and can make use of learnings across sectors. They should explore the development of new strategy tools that base their assumptions on the East African rather than the Western market. Adapting and developing new tools can significantly improve entrepreneurs’ ability to make sense of their environments and therewith the performance and

efficiency of technology enterprises at large. Questions that are centric to Kenyan entrepreneurial realities can be a starting point to construct new and impactful models. Similarly to the “lean start-up” strategy concept, which admittedly has been developed outside of Africa, new strategy tools can provide ways to reframe experiences and allow entrepreneurs to better conceptualize their operating environment..

## 05 POLICY MAKERS

Bridge communication gap between sectors and facilitate network linkages. Besides creating a favorable environment for start-up and high-risk enterprises to grow (e.g., early tax exemptions, permitting and incentivizing risk capital investments from institutional investors, government procurement of local technology), policy makers can play a key role in bridging the distance between sectors, thereby lifting the ICT sector out of its insularity. The explicit inclusion of the ICT sector with clear action points in Kenya’s Vision 2030 was an important step in the right direction. In addition, the ICT Innovation Forum (March 2015) and the Global Entrepreneurship Summit (July 2015) were key events that put ICT on the map. However, for externals, be it customers, partners, or investors, ICT remains a distant concept and collaboration opportunities are not easily identified. Demonstrating the compatibilities and synergies across sectors will increase awareness, facilitate sector growth, and enhance efficiencies across sectors.

Also, government officials are not yet familiar with technology companies’ specific valuations. Since ICT company valuations are based on future cash flows and not on actual assets or



“An Africa-centric definition of entrepreneurship may well be the answer to overly universal entrepreneurship definitions that are usually based on Western epistemologies but do not fit the reality of African economies.’

realized revenue, a company valuation may give an inaccurate picture to the Kenya Revenue Authority, the National Hospital Insurance Fund, the National Social Security Fund, or the City Council. This misconception has led to lengthy audits that do not only use up taxpayers money but also tie up the entrepreneurs’ attention to complying with auditors. Sector-specific audits that take into account the unique operating environment and business norms of technology enterprises can facilitate this process.

### RESEARCHERS AND THE MEDIA

Develop the foundation for a grounded and well-informed debate. This chapter, designed to motivate further research into country-specific entrepreneurship in Africa, attempts to reveal the unique cultural, social, economic, and political environment entrepreneurs are embedded in, which requires unique tools and capabilities to discover and exploit business opportunities. An Africa-centric definition of entrepreneurship may well be the answer to overly universal entrepreneurship definitions that are usually based on Western epistemologies but do not fit the reality of African economies. Examining the current understanding of entrepreneurship in Africa can introduce a holistic view on the various dynamics at play in economic exchange and fuel new theory development. Starting with questions that center around the values and ideals of Africans (Asante 2015) is an important starting point in developing management theory from and for Africa. This view emphasizes a pluralistic understanding of a given environment in which various epistemologies co-exist. An analytical focus on the remarkable developments in entrepreneurship and leadership,

for example, will not only create a contemporary and more adequate image of African change makers and visionaries, it will also update the current debates that focus on corruption, aid, and the like. It can provide the tools that these individuals need to thrive. The road up ahead for academia is an exciting and impactful one.

### ENTREPRENEURS: CHALLENGE THE STATUS QUO

Challenge the status quo, build the virtual digital infrastructure, and turn inefficiencies into opportunities. Many online and “offline” enterprises rely on technology to synchronize their operations. Supply chain management, accounting, and inventory management are just a few examples that create the virtual digital infrastructure that enhances competitiveness. It is here that current infrastructural inefficiencies can be turned into highly scalable business opportunities. Business models that are copied and imitated from Silicon Valley, for example, rely on these essential tools to thrive. Successfully solving this structural challenge through customer-driven and iterative product refinement will prompt high adoption rates for new solutions and provide the additional edge to outperform international products. A critical eye in observing inefficiencies and challenging the status quo in current business affairs is an important trigger for innovative solutions and thus a potential contributor to Kenya’s economic growth. Cultivating a mind-set that seeks to find new ways to bundle resources requires the entrepreneur’s emancipation from the given and the taken-for-granted in order to see another, more efficient way of doing things. It is a task that entrepreneurs need to increasingly undertake and embrace.



‘Kenya’s parallel entrepreneurship reality can turn distraction into an advantage.’



**ENTREPRENEURS:  
EMBRACE STRATEGIC ALIGNMENT**

Embrace strategic alignment when the time is right. The debate surrounding single-mindedness and whether or not side-businesses are a “no go” is difficult to resolve. Parallel entrepreneurship is an indicator of the multiple business opportunities an entrepreneur is exposed to. Rather than limiting or restricting the behavior, it can produce cross-learning effects. Disregarding, ignoring, or condemning parallel entrepreneurship can help a few entrepreneurs to focus. However, the large majority lacks the tools and safety net to align, learn, and use the skills to their advantage. Business opportunities may be seized in unrelated sectors which may offer significant scaling opportunities, if they are interlinked. Thinking strategically about engaging in side hustles can become a great resource; however, with no strategy or plan at hand, the entrepreneur may get lost in details without seeing the larger picture. Learning from Silicon Valley’s serial entrepreneurship model and applying it to Kenya’s parallel entrepreneurship reality can turn distraction into an advantage. Supporting entrepreneurs in maturing their various businesses into a coherent portfolio and sensitizing international investors on the benefits of parallel entrepreneurship is an essential task.

saving & investment clubs) can become an important element of early stage financing. International investors need to get more intensively involved with the domestic organizational landscape in order to leverage local capital and build confidence to invest outside the “norm.” Kenyans are always interested in investing in the next “big” thing.

On the flipside, Kenyan investors can also leverage international capital. This can instigate a new investment culture that seeks to blend the best of both worlds. Kenyan investors can, for example, use existing financial instruments, such as saccos, and invite diaspora, international angel investors or international investment funds into their group. This collaboration can facilitate cross-border knowledge flow and build a wealth of experience and trust in local startups. Kenyan investors have superior market knowledge and networks that should be leveraged with specialized international investors who have the specific knowledge and networks to unlock global markets. In particular, investments from Kenyan investors should be seen as important signals for international investors to either syndicate or follow on with additional investments.



**DOMESTIC AND  
INTERNATIONAL INVESTORS**

Seize the domestic organizational landscape and leverage international resources. The domestic investment culture is a key pillar in providing the crucial resources needed for technology enterprises to grow. Even though the equity investment market is still nascent, chama groups and saccos (formal and informal

# RESEARCH PARAMETER AND CONCLUSION

# ERGO

## CONCLUSION

Technology entrepreneurship came to fame, due to its economic success in Silicon Valley. Although, technology entrepreneurship has become a global phenomenon with by now various technology innovation clusters around the world, Silicon Valley remains the epicenter for technology entrepreneurs. It sets industry standards which define what success means and prescribes the practices that lead to success. This chapter sketched out three key tenets of Silicon Valley's technology entrepreneurship model with its corresponding prescriptions – single-mindedness, exponential growth and glorification of failure – and contrasted these with the dominant Kenyan way of entrepreneurship – hedge your bets, organic growth and avoidance of failure. These two narratives co-exist in Silicon Savannah, Kenya's ICT sector, and lead to tensions among entrepreneurs and other actors involved in technology entrepreneurship in Kenya. Tensions arise as conflicting prescriptions on how to become a successful entrepreneur create confusion among technology entrepreneurs on the ostensibly "right" actions that will lead to success. In this chapter, the tensions are used as a source of inspiration to develop unique recommendations that seek to harmonize different action guidelines and create awareness among the new generation of entrepreneurs that will undoubtedly craft new innovations for the excitement of Kenyans.

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'Tensions are used as a source of inspiration to develop unique recommendations that seek to harmonize different action guidelines and create awareness among the new generation of entrepreneurs.'

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# STUDY 03

03  
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# JOB CREATION

AND

## SMALL BUSINESSES IN SOUTH AFRICA

### INTRODUCTION (PREVIEW)

South Africa is often referred to as the gateway for international capital to Africa. The country's transition from the apartheid era to democratic governance in 1994 endeared it and its leaders such as Nelson Mandela, to many in the world. Its well-developed financial sector, regulatory environment, and its sound macroeconomic policies position the country as a competitive investment destination, except perhaps for the underlying socioeconomic challenges. In 2015, this country of roughly 53 million people is still struggling to rein in high levels of unemployment and income inequality. Since 1995, the official unemployment rate has averaged 23.5%. The proportion of income held by the top 20% has been increasing - from 61.8% in 1995 to 68.2% in 2009 - while that held by the lower 20% has been steadily falling from 3.6% in 1995 to 1.2% in 2009. The state of restlessness amongst citizens is evident in what seem to be regular protests nationwide which have raised concerns that the socioeconomic problems of unemployment and inequality are a threat to the young democracy.

# SOUTH AFRICA: THE GATEWAY FOR INTERNATIONAL CAPITAL TO AFRICA

## INTRODUCTION

Cognizant of these problems when assuming office in 1994, the African National Congress government continues to emphasize the potential contribution of micro, small, and medium enterprises (MSMEs) in creating jobs and fostering social equity. The government has set up dedicated institutions to train small business owners and to improve their access to finance. The Broad-Based Black Economic Empowerment (B-BBEE) legislation is one of the main instruments government uses to support small businesses. The legislation requires that large businesses procure some of their inputs from MSMEs and spend up to 3% of their net revenues on small enterprise development and socioeconomic development projects.

It must be said though that empirical evidence globally provides very weak support for the assertion that small enterprise development interventions deliver the expected jobs or that the interventions are effective in reducing poverty (Beck, Demirgüç-Kunt and Levine, 2005; Shane, 2009). Nonetheless, the assertion is embraced by governments across the world and is affirmed by leading international development organizations. Given that the assertion is contested, the most useful role research can play is, first, to identify specific issues within the MSME sector that must be targeted by interventions and second, to identify specific types of firms where, if support is targeted, the greatest impact (i.e., job creation) will be realized. In doing both, research contributes to ensuring an effective allocation and use of limited resources.

So what are the issues that must be attended to for the small business sector to significantly contribute to job creation in South Africa? Exploring such issues is difficult

in developing countries such as South Africa due to the lack of reliable data on the sector. For growth to be calculated it is of course necessary to have data on sales, profits, number of employees, or whatever performance output is of interest, from at least two consecutive periods and such data are not available in developing countries. However, the World Bank Enterprise Surveys (WBES) have mitigated the data challenge. Since 2002, the World Bank has conducted periodic surveys in member countries using a uniform data collection instrument. This has, as the

‘Socioeconomic problems of unemployment and inequality may be a threat to the young democracy.’

World Bank says, created “the world’s most comprehensive company-level data in emerging markets and developing economies” (World Bank Group). Most studies that use the WBES to investigate key issues affecting the small business sector are cross-country. A cross-country study has many countries in its analysis, which makes it difficult to generate inferences about policies that would be appropriate to a specific country of interest. The three surveys that the World Bank has conducted in South Africa in 2003, 2007, and 2010 are therefore useful in exploring issues that must be attended to unlock the job creation potential of small businesses. What are the key obstacles to the growth of MSMEs in South Africa?

# KEY OBSERVATIONS

## ESSENCE

A review of the literature shows that the list of obstacles faced by MSMEs is largely similar across countries. What comes out clearly is that access to finance is the most serious obstacle MSMEs encounter. But what is less explored in the literature is the ordering of obstacles: which obstacles must be prioritized by policy makers and business owners? Most studies have ranked the importance of obstacles based on a simple count of responses from businesses owners' ratings of the obstacles. Such ratings are on a Likert scale, which in the case of the WBES has five levels: "no obstacle," "minor,"

.....

'What are the key  
obstacles to the growth of MSMEs  
in South Africa?'

.....

"moderate," "major," and "very severe." A typical simple count approach sums the "major" and the "very severe" ratings and the obstacle with most responses is deemed the most serious impediment to job creation. Few studies examine the effects of the obstacles on growth. This research project leveraged on the few studies that examine the effects of each obstacle on the actual performance of the firms to come up with a priority list that practitioners and policy makers in South Africa can refer to when designing intervention policies in the MSME sector.

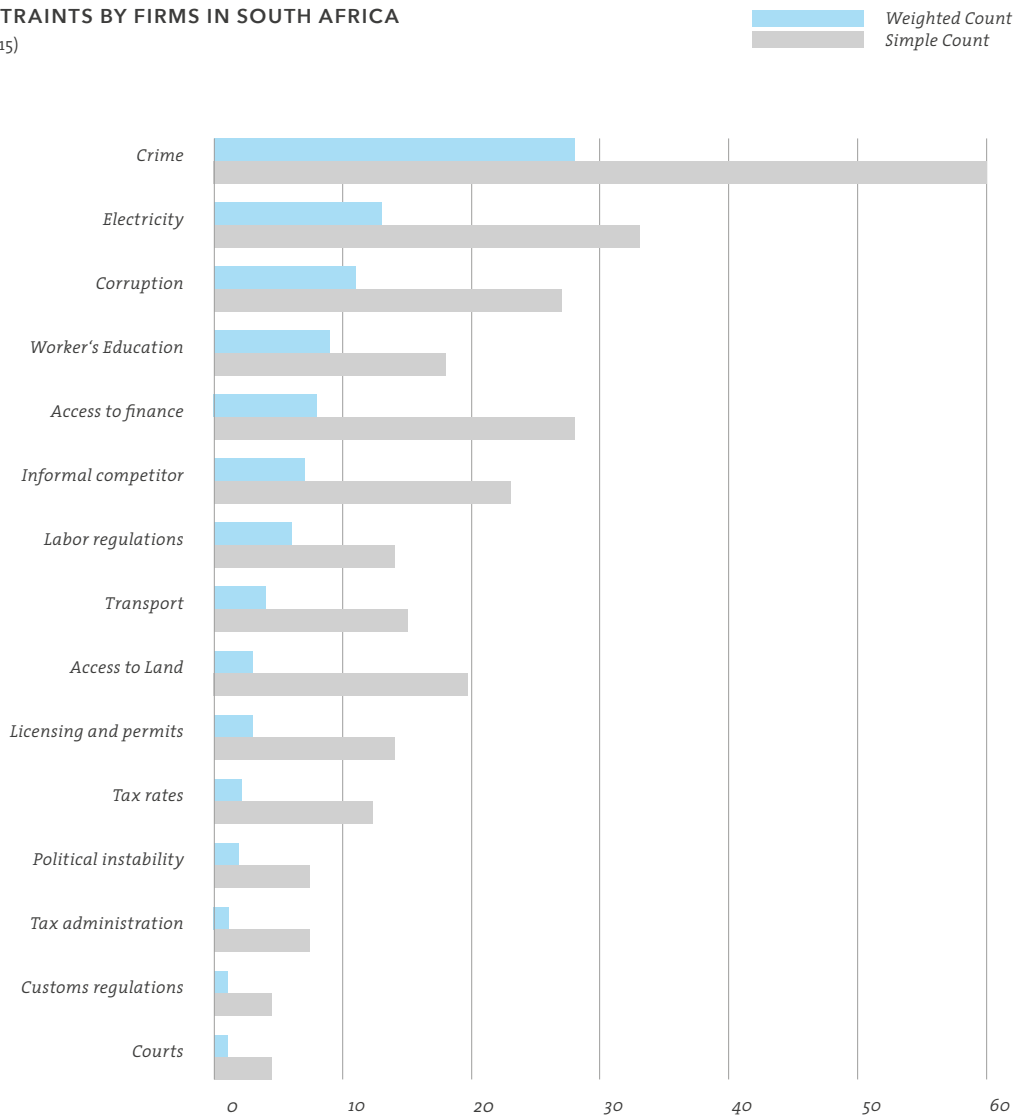
Using the simple count method, what emerged in studying the 1,057 firms covered by the WBES in South Africa is that

crime is the most serious obstacle. But the weakness with the simple count approach is that the firms only respond to a specific statement about an obstacle and rate only that obstacle but do not rank the obstacle against others. To address this weakness, this study proposed a weighted count approach based on responses to the following question in the survey instrument: "Among the issues numbered 1 to 15, please indicate which one constitutes: the most serious obstacle; the second most serious obstacle; the third most serious obstacle." A weight score of 3 was assigned to the first most serious constraint, 2 to the second, and 1 to the third most serious. Multiplying the score by the respectively observed frequencies and respectively summing the product of the first, second, and third most serious obstacle for each firm, the relative importance of each of the 15 obstacles was determined by ranking based on the final weighted scores. The results of the simple count and weighted count approaches can be found in Figure 1.

Although the two approaches come up with the same top obstacles, Figure 1 shows that there are differences in the ordering of the constraints. Access to finance is the fourth on the simple count method but fifth in the weighted count approach, while workers' educations becomes the fourth most important in the weighted count approach from being seventh in the simple count approach. The weakness of the count-based approaches as said earlier is that the effect of the obstacles on enterprise performance is not explored. Some of the studies exploring the obstacles' effects on enterprise performance use the analytical framework proposed by Hausmann, Rodrik and Velasco (2005) called growth diagnostics. This research project

**FIG. 1**  
**RATING OF CONSTRAINTS BY FIRMS IN SOUTH AFRICA**

Source: Mthimkhulu (2015)



adopted the growth diagnostics analytical framework and used a series of sequential multivariate regressions to determine the relative importance of each obstacle based on its observed effects on employment growth in each firm.

In exploring the effects of the obstacles on job creation, the study grouped firms into 14 categories based on attributes such as type of owner, location of firm, and sector. This was done only for small and medium-sized firms such that the effect of each obstacle was examined in a total of 28 types of firms. Figure 2 summarizes the number of times each obstacle had a negative effect on growth and the number of times the effect was statistically significant. Crime and

transport emerge as the obstacles with the highest number of significant effects, i.e., 9 out of the 28 possible outcomes. The obstacle “courts,” which relates to the enforcement of laws and regulations, has the highest number of negative effects but only 5 of the 22 negative effects are statistically significant. A fair conclusion from Figure 2 is that crime - which is in fact related to courts - is the most serious obstacle, affirming the count-based results. Figure 2 shows that transport and electricity are next on the obstacles’ priority list.

It emerged that firms with up to 20 employees were the most affected by these problems. Figure 3 summarizes the

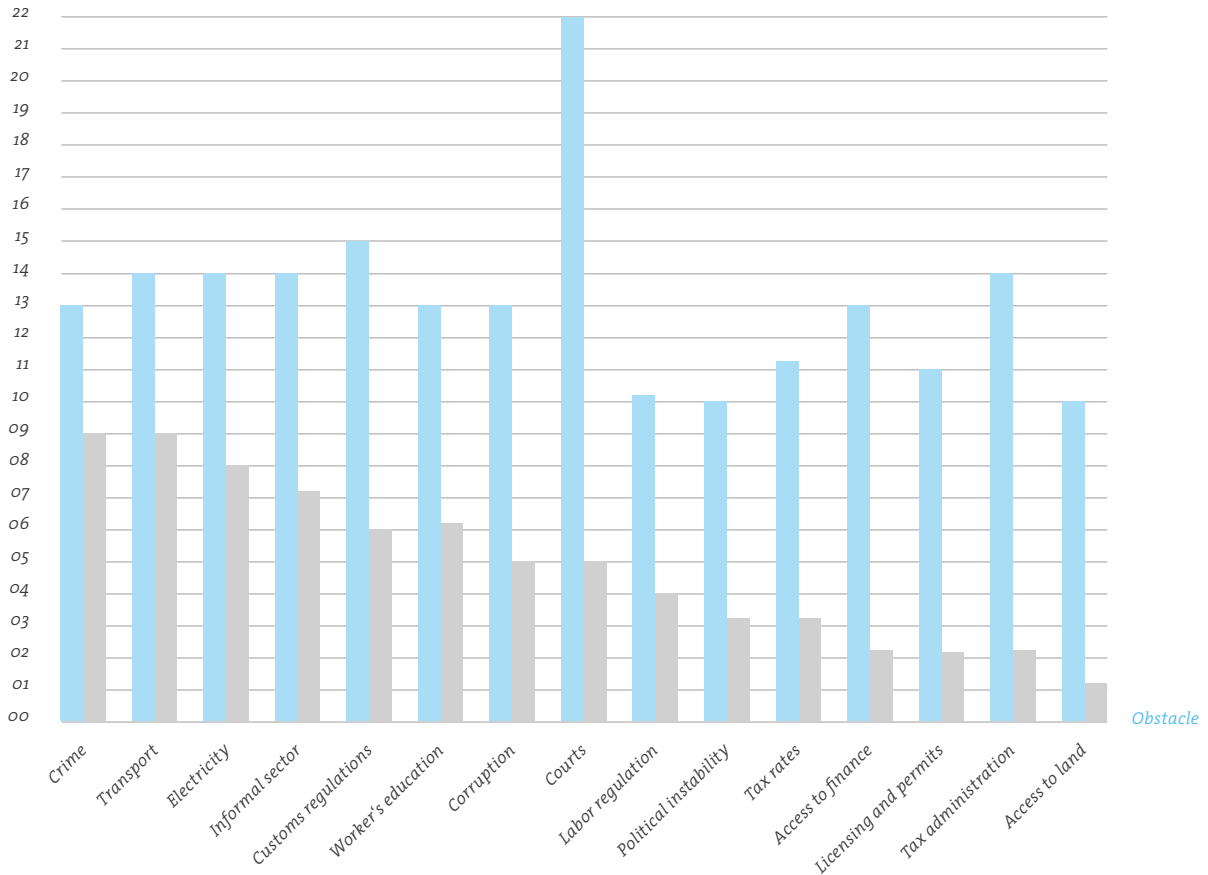


**FIG. 2**  
**OBSTACLES CONSTRAINING JOB CREATION**  
**THE MOST AMONG THE SMES**

Source: Mthimkhulu (2015)

Legend:  
■ Negative  
■ Significant

Number of times obstacle  
 negative / significant



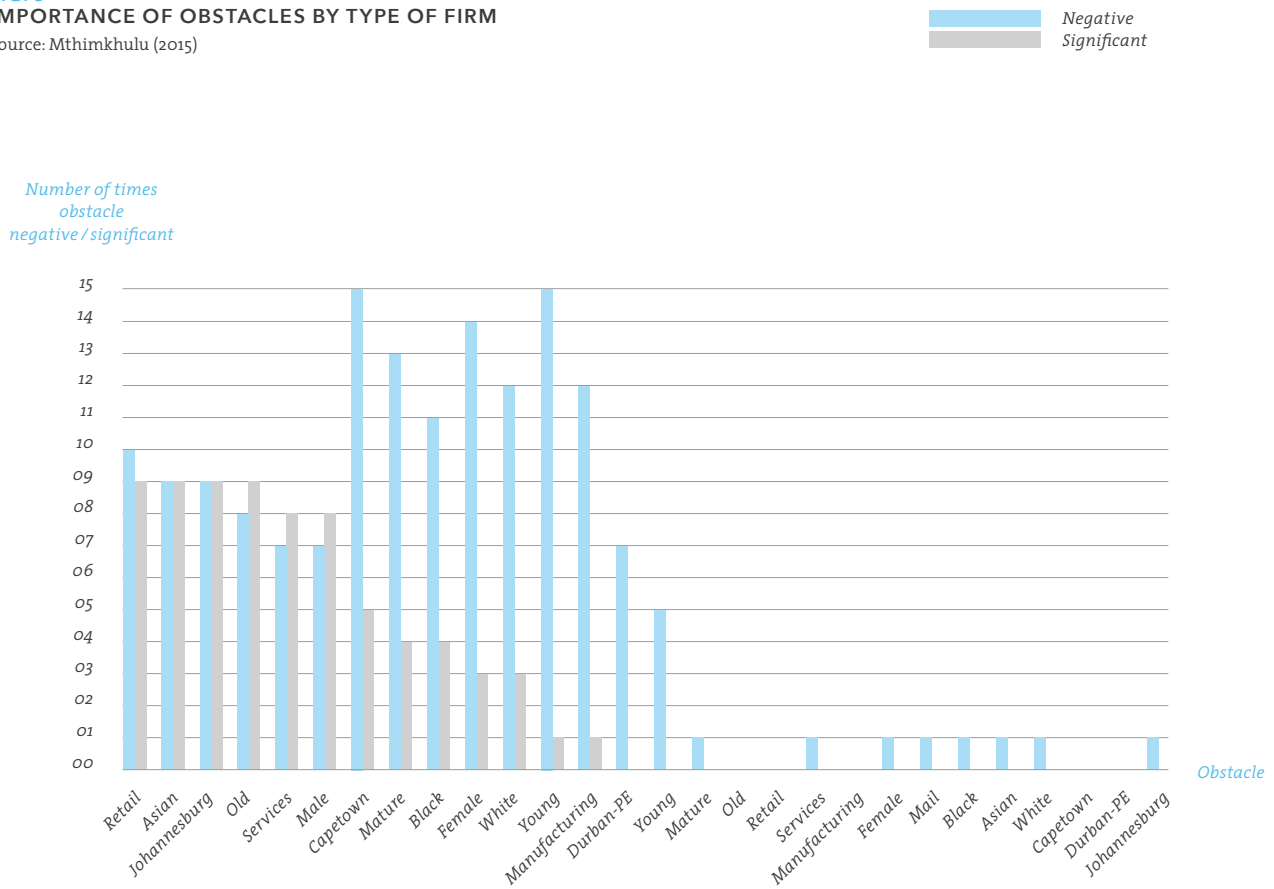
results and shows that small firms in the retail sector are most affected by the 15 obstacles the research analyzed. Firms with more than 20 employees were only mildly affected by all the obstacles studied. Support programs could therefore target the smaller firms and put less emphasis on the medium-sized enterprises.

What is intriguing about the results discussed thus far is that access to finance is not the top obstacle as would be expected from the literature. It is the fifth using the weighted count approach (Figure 1) and is only significant twice as an obstacle to job creation (Figure 2). Even owners of microenterprises, who by definition have up to 4 employees,

rated crime as the top problem. What are the possible explanations for the difference of this study's findings on access to finance from the established empirical evidence in the literature? With regard to South Africa, it could be because this research project was perhaps the first to examine the effects of obstacles on enterprise performance as most studies use the simple count approach to determine key obstacles. The difference can also be attributed to the fact that most studies that use the WBES are, as mentioned earlier, cross-country. Such studies inherently smooth out the peculiarities of countries such that conclusions and recommendations from the analyses are best suited to the "average" or "typical" country. Country-specific studies are

**FIG. 3**  
**IMPORTANCE OF OBSTACLES BY TYPE OF FIRM**

Source: Mthimkhulu (2015)



important in that they capture the peculiar circumstances and the unique firm size distribution such circumstances have nurtured.

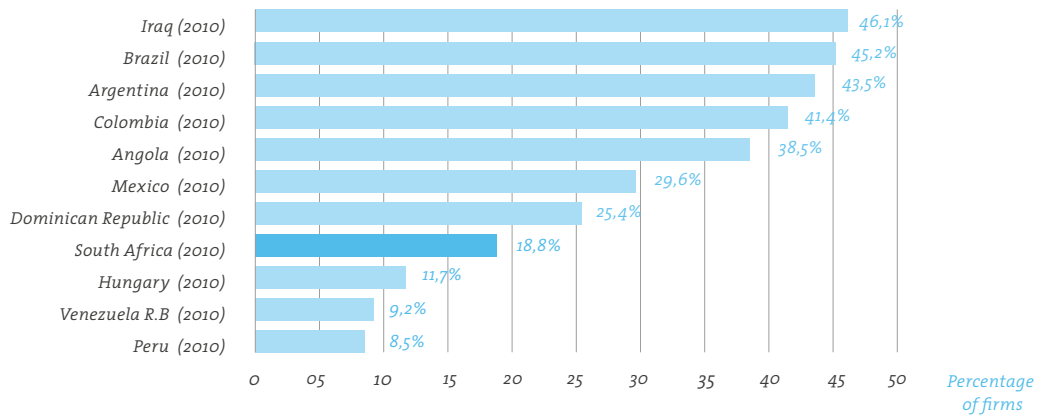
Given its prominence in the literature, the study explored the finance constraint further to explain, or at least appreciate, why it was not a top issue in the sample of firms studied. In tracking how firms rated access to finance as affecting their operations it emerged that there had been a significant improvement in ratings from 2003 to 2007. The significant deterioration in the ratings from 2007 to 2010 was expected, given the effects of the global financial crisis. However, when the ratings of access to finance by firms in South Africa are compared to ratings by firms in what the World Bank defines as middle-income economies (of which South Africa is one), a comparably smaller proportion of firms in South Africa rated finance as a serious problem. This is captured by the summary in Figure 4 which makes use of middle-income countries surveyed by WBES from 2009 to 2011, the years closest to the last survey conducted in South Africa. Figure 4 further affirms that the finance

constraint is not as significant a problem in South Africa as it is in comparable economies. It could be that support extended through the provisions of the B-BBEE legislation, by organizations such as the Small Enterprise Finance Agency, and through financial inclusion initiatives of the financial sector that access to finance is not a top obstacle.

The importance of access to finance in the enterprise development literature has to some extent intensified a debate on whether perception-based indicators of obstacles drawn from Likert scale ratings are a fair proxy of the actual problems. As a result, there are efforts from many researchers to use objective indicators or measurements of access to finance. Kuntchev, Ramalho, Rodríguez-Meza, and Yang (2013), for instance, have proposed a comprehensive framework for measuring the extent to which a firm is credit constrained based on its actual experiences as it seeks to raise finance. When the framework is applied to the South African firms surveyed, the results show that the smaller the firm, the more likely it is to be in the fully credit constrained category – a result which is in line with

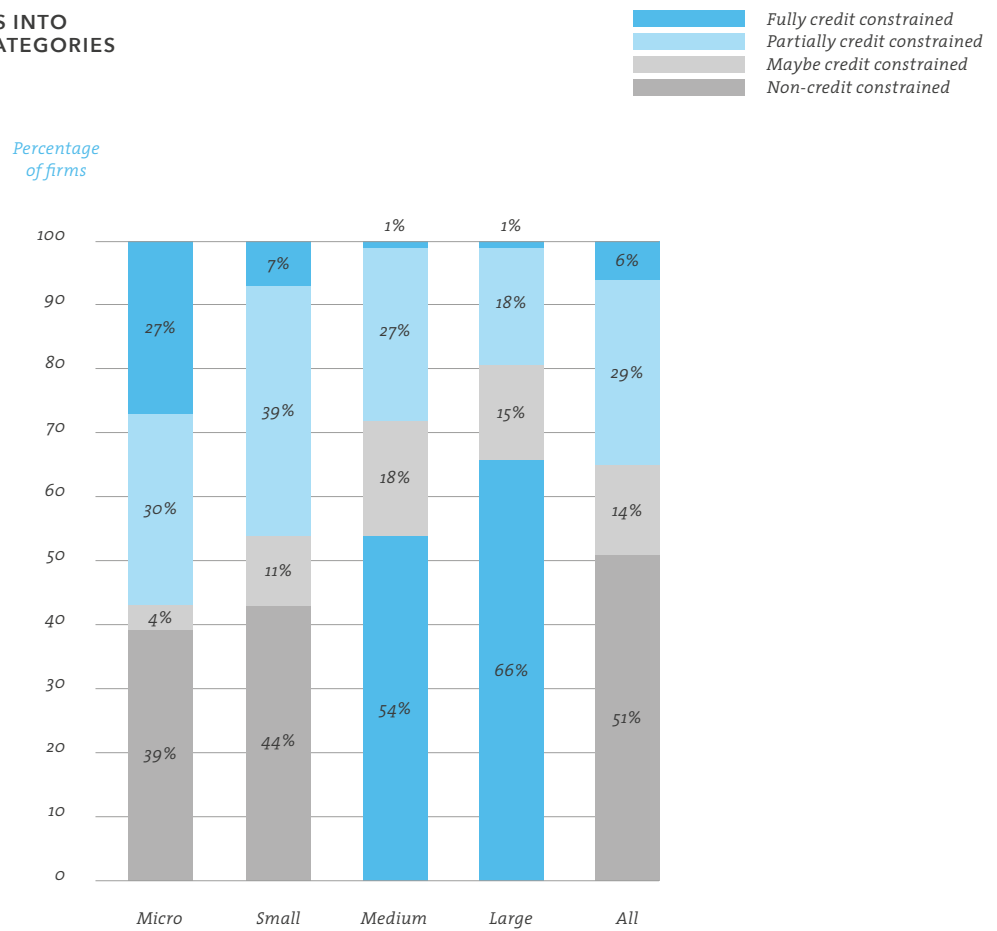
**FIG. 4**  
**PERCENTAGE OF FIRMS IDENTIFYING ACCESS TO FINANCE AS A MAJOR CONSTRAINT**

Source: Mthimkhulu (2015)



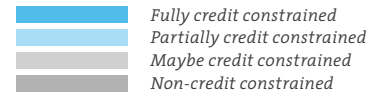
**FIG. 5**  
**THE DISTRIBUTION OF FIRMS INTO THE CREDIT CONSTRAINT CATEGORIES**

Source: Mthimkhulu (2015)

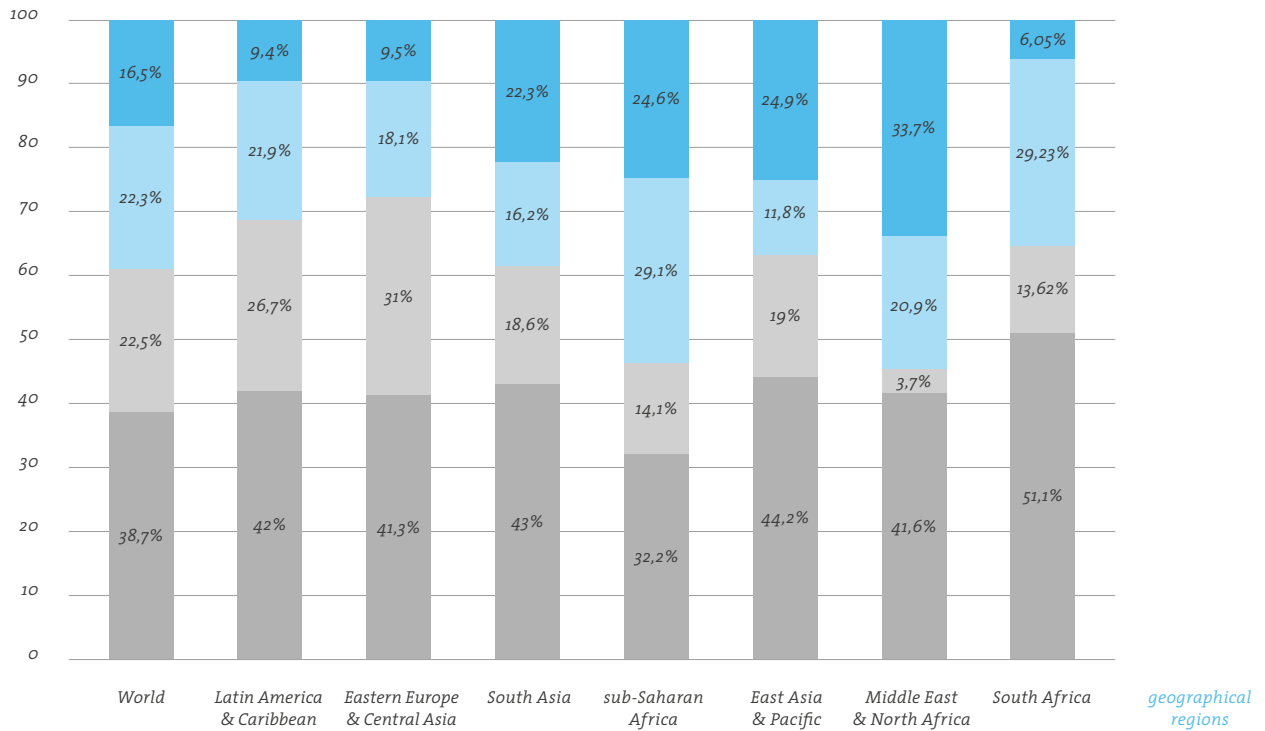


**FIG. 5**  
**THE DISTRIBUTION OF FIRMS INTO**  
**THE CREDIT CONSTRAINT CATEGORIES**

Source: Mthimkhulu (2015)



Percentage  
of firms



established findings in the literature. These results are shown in Figure 5.

Benchmarking the results in Figure 5 against results reported by Kuntchev et al. (2013) from six regions of the Global South, Figure 6 shows that most firms in South Africa are likely to be in the non-credit constrained category. These results from the framework are in line with the perception-based measure where it was seen that few firms in South Africa rate finance as a serious problem.

In as much as finance is not the top problem encountered by firms in South Africa, there are financially constrained firms. Indeed, as Figure 5 showed, 57% of microenterprises surveyed, 46% of firms with between 5 and 20 employees, and 28% of firms with between 21 to 99 employees were in the two categories of partially credit constrained (pcc)

and fully credit constrained (fcc), meaning that they encountered challenges as they tried to raised finance. It would therefore be important that future research seeks to deepen our understanding on the profile of such firms. What are their attributes? What are the most common experiences they share on seeking finance? Answering these questions will direct policy to the most affected firms and facilitate effective use of intervention resources.

It was mentioned earlier that there is limited evidence to support public policy interventions for MSMEs. This chapter addresses the debate in the literature on the contribution or lack thereof of small businesses to job creation, poverty alleviation, and economic growth and contributes to the small but growing body of evidence shows, that it is not the generality of firms that are responsible for most of the new jobs in an economy. This evidence suggests that high-growth firms can account for up to 70% of net new jobs in

an economy even though they typically constitute a mere 4 to 9% of the total number of firms in an economy. But little is known about the attributes of such firms. In fact, the discussion on high-growth firms in emerging economies is hardly existent. One study by Goedhuys and Sleuwaegen (2010) explores the characteristics of high-growth firms in 11 African countries using the WBES. It did not include South Africa, which motivated this study to explore the attributes of such firms in South Africa.

.....

‘In as much as finance is not  
the top problem encountered by firms  
in South Africa, there are financially  
constrained firms.’

.....

Using quantile regression enabled the study to observe the importance of each characteristic for enterprises at different levels of growth rates. Attributes examined included proxies of innovation, such as a firm having internationally recognized quality certification or an own website; proxies of governance, such as whether or not the firm’s financials were audited by an independent professional; the extent to which a firm was an exporter; the ownership structure; the type of owners; the sector; and the level of education and experience of the top manager. The analysis also contrasted the attributes of firms that created more jobs than the average of the sample with those creating fewer jobs and a binary logit regression model was used for the comparison.

.....

‘This exploratory study  
identified crime as the most serious  
constraint to job creation.’

.....

The main results of the analysis were that owner’s ethnic origin significantly explained the likelihood of the firm being a significant job creator. In particular, black-owned firms were significantly more likely to be in the top 20% of the outperforming firms even though they accounted for about a quarter of the total number of potential high-growth firms analyzed.

It was evident in the analysis of the high-growth firms that the attributes explored, though comprehensive and in line

with other studies, were rather weak in explaining high growth. Arguably therefore, there should be attributes that may explain high growth more robustly than this study did and further research would be valuable. Such research could explore the role that culture and value systems play in influencing enterprise growth. Cultural factors can influence how business owners define growth: in some cultures, communitarian influences could be more significant while in others more individualistic approaches could be significant. For example, a firm embedded in a communitarian culture is perhaps more inclined to hire more workers than to substitute labor with mechanization. In the context of the current discussion, such a firm will report a higher growth rate than that embedded in an individualistic value system. Future research could explore these issues extensively.

# RECOMMENDATIONS AND METHODOLOGY

# OPINION

## RECOMMENDATIONS

This exploratory study identified important issues affecting the job creation potential of MSMEs in South Africa. That crime is the most serious constraint to job creation is perhaps not surprising given the general discourse in the country's media. The finding calls for more policing and law enforcement, and also perhaps communicates the extent and consequences of the limited employment opportunities. Solutions may include skills development programs in communities which could be helpful in fostering entrepreneurship resulting in the creation of much-needed jobs. Furthermore, partnerships between the local municipalities and community-based organizations can play an important role in such skill development programs.

## METHODOLOGY

This research used the World Bank Enterprise Survey data of 2003 and 2007 and the World Bank Financial Crisis Survey of 2010 and focused on the South African datasets. The main methods used for analysis were Multivariate Regression, Logistic (Ordered and Binary Logit) Regression and Quantile Regression.

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# STUDY 04

04  
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DÍAZ RAMÍREZ  
-  
UNIVERSIDAD  
DE LOS ANDES



# ESTABLISHING PARTNERSHIPS

BETWEEN

## SMALL BUSINESSES AND NONPROFIT ORGANIZATIONS: MOTIVES AND CONDITIONS IN COLOMBIA'S FOOD SECTOR

### INTRODUCTION

This research was developed to study the motives and surrounding conditions that lead to the creation of social partnerships between small businesses (SBS) and nonprofit organizations (NPOs) in Colombia. It offers qualitative and quantitative empirical data from the food sector in nine cities and attempts to ascertain which of the motives take priority over the creation of these social partnerships and how the availability of critical resources in the environment affects these motives. It also outlines policy advice on the promotion and regulation of social partnerships as tools for economic growth and the development of the social agendas of SBS. The theoretical model includes three elements: the influence of the owner manager's (OM's) interest in social issues, environmental conditions, and the character of the SBS (entrepreneurial origin, age, and relation between the role of management and ownership).

# KEY OBSERVATIONS

## ESSENCE

### SMALL BUSINESSES AND THEIR PARTNERSHIPS WITH NONPROFITS

Small businesses (SBs) are agents of economic development with for-profit goals. They establish inter-sectoral partnerships with nonprofit organizations (NPOs) to develop social interventions that contribute to producing change in their immediate environments in the face of social needs. The owner managers (OMs) of SBs understand the need for “collaboration amongst . . . diverse actors for the purpose of applying business principles to solving social problems” (Montgomery, Dacin & Dacin, 2012, p. 376). OMs also know that establishing those social partnerships does not imply that SBs will drop their for-profit goals or endanger their own sustainability (Burtch, 2013).

### SMALL BUSINESSES IN THE ECONOMY

According to Bárcena, Prado, Cimoli, & Pérez (2011) small businesses comprise 90% of the enterprise landscape in Latin America. In Colombia, according to the Mipymes Ministry of Commerce, Industry and Tourism (MINCIT, 2014), 99.4% of the enterprises are small and micro businesses. On average in Colombia, SBs have between 11 and 50 employees, with assets between approximately US\$165,000 and US\$1,641,000 (MINCIT, 2014). In general, those businesses serve local clients in a limited shared market, and are owned by one person or a small group of people who struggle with most of the managerial issues (Bridge et al., 2009), because the size of those businesses, the roles of ownership and decision making are in hands of the same person or group of people.

### THE FORMATION OF PARTNERSHIPS BETWEEN SBs AND NPOs

For the purposes of this study, NPOs are defined as private formal organizations that are self-governing, do not to distribute revenues, and depend on voluntary participation (Salamon & Anheier, 1992). SB-NPO partnerships share and commit information, resources, activities, and capabilities towards a common goal that otherwise could not be reached. Their work is focused on social issues and entails benefits for both partners; for that reason, they are considered social alliances (Waddock, 1988; Bryson, Crosby & Stone, 2006; Fundación Corona, 2010).

The setting for the establishment of such partnerships is a combination of motives of the OM, the stage of the SB in its life cycle, and external environmental conditions. These conditions include the availability of critical resources—that is, the level of munificence of the environment, the social acceptance of the partnerships and the role they play in the economy, and the normative frame that regulates them. Since survival is a priority for SBs, this research concentrates on the conditions related to the availability of critical resources in the establishment of the partnership.

### MOTIVES FOR SBs TO ALLY WITH NPOs

Five motives for SB partnerships with NPOs are based on the proposals of Oliver (1990) and Bekkers & Wiepking (2011): efficiency, stability, legitimacy/reputation, reciprocity, and altruism (Figure 1).

Efficiency is motivated by the reduction of transaction costs (Williamson, 1975). Partnerships are intermediate or hybrid structures that can help to reduce those costs. In general, SBs suffer from lack of financial as well as technological and managerial resources (Bridge et al., 2009); for that reason efficient management is crucial for survival. Different from partnerships between businesses, the cost/benefit evaluation of SB partnerships with NPOs follows a rationality that involves the creation of both economic and social value (Austin, Stevenson & Wei-Skillern, 2006).

Stability, associated with predictability (Galaskiewicz, 1985), is concomitant with the generation of adaptive responses in the face of an uncertain environment (Pfeffer & Salancik, 1978; Donaldson, 2001). According to contingency theory (Galbraith, 1973; Lawrence & Lorsch, 1967), SBs can maintain their sustainability because partnering with NPOs helps them respond better to their surrounding conditions.

Legitimacy/reputation refers to the social appreciation of the actions of an organization; that is, whether it acts in accord with norms and beliefs related to its institutionalization (Meyer & Rowan, 1977; Suchman, 1995). In the case of SBs, interaction with NPOs increases societal recognition of their accomplishments. The partnership permits the SB, starting with a consensus of goals, to

sharing risks of engagement with social interests and to deliver assets or services that have the potential to increase its own legitimacy and reputation.

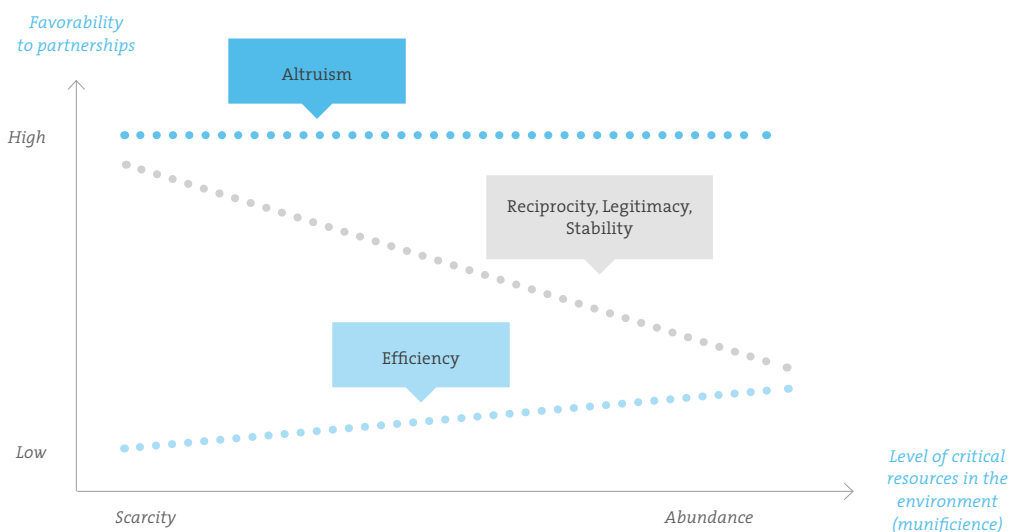
Reciprocity is the pursuit of shared or mutually beneficial goals and interests. It means that the relationship is not guided by a rationality of asymmetry (Oliver, 1990). In the case of resource scarcity, SBs can help to produce economic and social value by means of an explicit or tacit arrangement with an NPO. This kind of collaboration promotes cooperative actions such as information exchange and taking advantage of complementary resources.

Altruism is understood as caring for the social effects of one's own actions (Bekkers, & Wiepking, 2011; Andreoni, 2006). This would be the case of an SB created by an OM who cares about the output of an enterprise's social actions. One reason why a SB interacts with an NPO is because the OM thinks that it is doing good by giving to others or cooperating with others for social purposes.

**THE CONDITIONS FOR ESTABLISHING SUCH PARTNERSHIPS**

The availability of resources is related to factors of supply and demand (Bridge et al., 2009), and the way such

**FIG. 01**  
RELATIONSHIP BETWEEN MOTIVES AND SURROUNDING CONDITIONS WITH PARTNERSHIPS FORMATION



factors affect the possibility of establishing intersectoral partnerships (Austin & Seitanidi, 2012). In the case of partnerships with NPOs, the level of munificence of critical resources, not only financial, affects the establishment of partnerships because the SB can view the NPO as a source of new exchange possibilities and a way to obtain new resources.

SBs might not want to explore new types of interactions because they do not want to risk their viability, but it is also possible that scarcity of resources can make them take risks and explore new forms of interaction. The effect of scarcity will depend on the OM's motives and on the SB's characteristics.

This study suggests that altruistic motivations favor the formation of such partnerships independent of the degree of munificence of the environment. Motivations such as reciprocity, legitimacy, and stability, favor partnership formation during times of scarcity because alliances offer the possibility of acting on those motivations. Finally, utilitarian motives favor the formation of partnerships only

in minor measure, and their probability slightly increases when conditions of abundance exist.

The importance of promoting SB-NPO partnerships The way that firms carry out social responsibility interventions as part of their strategy has been studied in large and multinational enterprises but the topic has not been well researched in SBs. For SBs, the inclusion of a social agenda in their strategy has implications for their own survival as they must assign part of their scarce resources to those new agendas and learn how to carry out social actions and manage social partnerships.

SBs are central actors of economic development (Rodríguez, 2003; Coutinho de Arruda, 2010; Vives et al, 2005) as they create employment and well-being (Spence & Rutterford, 2003; Spence & Perrini, 2009). They also tend to manage social and communitarian issues without delegating them to other organizations or actors (Spence & Painter-Morland, 2010), and incorporate them into their daily processes and management. Establishing partnerships between SBs and NPOs can be an engine for social and economic

**FIG. 02**  
**MATRIX OF INFLUENCES BETWEEN MOTIVES AND SURROUNDING RESOURCE**  
**CONDITIONS TO ESTABLISH PARTNERSHIPS**

Motives were drawing on the work of Oliver (1990) and of Bekkers and Wiepking (2011)

		Conditions of environmental resources (Munificence level)	
		Scarcity	Abundance
Motives	Altruism	Probable Partnership (it is natural to OM)	Probable Partnership (it is natural to OM)
	Reciprocity	Probable Partnership (to find complementary resources)	Not Probable (Does not need resources)
	Legitimacy	Probable Partnership (to find complementary resources)	Not Probable (it is not a priority)
	Stability	Probable Partnership (to find complementary resources)	Not Probable (stable environment)
	Efficiency	Not Probable (to avoid risk)	Probable Partnership (to find complementary resources)

‘Small businesses are the largest percentage of enterprises in many countries; they need to manage their resources appropriately and organizational arrangements, such as partnerships, can positively impact their survival.’

development as there is an ongoing transfer of knowledge, capabilities, and practices between the SB and its NPO partners. Whereas the pursuit of a social goal is important to both partners, the SB also continues to develop its for-profit work, which generates employment and supports economic development.

SBS are the largest percentage of enterprises in many countries; they need to manage their resources appropriately and organizational arrangements, such as partnerships, can positively impact their survival. The shared pursuit of social goals in alignment with the business purposes of SBS can also be useful and relevant to their own communities and environment.

#### WHY SOCIAL PARTNERSHIPS MAKE SENSE

Social partnerships are a tool for OMs to develop their interest in social causes and, given their strong control over their SB, to promote them there. When OMs have altruistic interests, they can see the partnership as a mechanism to develop those interests. When OMs have a mix of altruistic and utilitarian motives, the partnership enables them to act on social issues at the same time that it satisfies their needs for reciprocity, legitimacy, and stability. Finally, when the OMs have only utilitarian motives, the partnership makes sense as an additional source of efficiency and creation of new resources, but the social effect of the partnership is not a priority for the OM. A recent trend is for social interventions to be part of the strategic plans of SBS (Coutinho de Arruda, 2010). Previously this aspect was, to a large extent, managed informally. Within this trend, it makes sense for SBS to integrate their social responsibility activities with their formal planning and include social partnerships as a part of those activities.

Munificence is defined as “scarcity or abundance of critical resources needed by one or more firms that operate in a particular environment” (Castrogiovanni, 1991, p. 542), and firms look for high levels of munificence in their environment and tend to maximize the access to resources in it (Dess & Beard, 1984; Pfeffer & Salancik, 1978; Randolph & Dess, 1984; Staw & Sz wajkowski, 1975; Tushman & Anderson, 1986).

Businesses try to compensate for the scarcity of a resource by looking first in their own sub-environment; if resources are not available there, they will look to the environment they share with other businesses to find a common pool of resources they can exploit (figure 2) (Castrogiovanni, 1991). Partnering is an alternative way for SBS to access resources and, at the same time, develop social actions.

Relevance of social partnerships in food sector organizations  
When an organization contributes to satisfy a basic human need, such as food, its members are may be more aware of practices that can improve living standards. Therefore collaboration and partnerships may be more likely in sectors that work in basic needs. Food satisfies a basic human need, and the point of view of those who work in the food sector can provide an understanding about their particular way of partnering.

This study is focused on SBS that have established partnerships with a group of 20 food banks that work in several cities in Colombia. The food banks are NPO s that collect, store, and redistribute food and other basic goods to low-income people.

# RECOMMENDATIONS AND METHODOLOGY

## RECOMMENDATIONS FOR OWNER MANAGERS

Establishing social partnerships with NPOs can be an aid to SBs in their struggle to survive. It can be a tool to develop strategic actions in areas of social responsibility as they struggle with the munificence level of their environments and satisfy both the utilitarian and altruistic motives of OMs. It is important for OMs to have evidence that social partnerships do not imply giving up their for-profit interests or menace their business stability.

## FOR POLICY MAKERS AT THE NATIONAL AND REGIONAL / LOCAL LEVELS

Policy makers should clarify existing regulations and develop and refine the process for SBs to establish social partnerships so that they can serve as an instrument to include social issues in their agenda. They should use knowledge about the motives of OMs to help provide conditions for and create the settings to foster the formation and sustainability of social partnerships.

They should take advantage of favorable conditions that encourage the formation of social partnerships, such as when a concern for business viability exists or when participants are sensible to social issues. Local and regional public policy should be connected to the social responsibility objectives of SBs that mainly have a local scope. Strategic sectors should be identified where partnerships will contribute to the development of the private sector and the strengthening of local NPOs, and increase attention to local needs on social issues.

## METHODOLOGY

This exploratory study, based on the development of compared case studies (Yin, 2003), has been carried out in several stages:

### STAGE 1

A pilot stage was developed with 11 semi-structured interviews with OMs of SBs and directors of NPOs in Colombia's food sector. The purpose of this stage was to delimit the sample and refine the instrument for information gathering.

### STAGE 2

An instrument for semi-structured interviews was developed with 7 sections: screening, OM's basic information, SB's qualitative information, SB's quantitative information, OM motives, environmental conditions, and social partnering history.

### STAGE 3

Using a snowball method, referrals to 15 SBs (or fewer if saturation is achieved) by 20 associated food banks are the source for the sample in which 2 interviews are done for each SB. As a contrast method, a sample of 5 SBs belonging to the food sector that do not have partnerships or have not had successful partnerships with NPOs have been interviewed.

### STAGE 4

The objective of this stage was to develop a comparative analysis of cases, contrasting findings with initial propositions, analyzing results, and formulating conclusions.

## CONCLUSION

# ERGO

The propositions offered here about influences among motives and conditions of environmental resources is meant to show influences, not effects, as the purpose of the analysis is not to prove causality (Miles, Huberman & Saldaña, 2013).

The reasons some SBS and OMS overcome a variety of internal and external obstacles, as well as their own prejudices and limitations, in establishing social alliances while others do not are linked to their motivations for partnering. When an OM's rationality balances the creation of social and financial value, this permeates the organization and enables it to participate in social alliances. Although some OMS believe that providing resources to NPOs affects the sustainability of their SB, the establishment of partnerships with NPOs can also positively affect the SB's survival.

Altruistic motives favor the formation of partnerships, independently of the level of munificence in the environment. Utilitarian motives do not particularly favor the formation of partnerships, although an increase in efficiency - a concern in environments of scarcity - can push for their establishment. Different motives lead to the formation of alliances, especially in environments of scarcity.

Social partnerships allow SBS to access resources and meet their needs for reciprocity, legitimacy/reputation, stability, and efficiency.

While the life-cycle stage of an SB may also have an impact on partnership formation, it appears to be less influential

than the level of munificence of critical resources in the environment and the OM's motives for establishing the partnerships.

In Colombia, inequality is paramount and social partnerships can be an instrument to promote dialogue between actors who have been estranged for a long time. SBS and NPOs can understand different points of view, stimulate economic growth, and attend to social needs. This is vital in a possible post-conflict stage in Colombia.

Social partnerships are a useful tool for SBS to include social issues in their strategic agenda. When SBS carry out social actions and, specifically, engage in social partnerships, they make their motivations and interests more explicit and can pursue them more directly.

SBS may take advantage of their interest in incorporating social issues into their strategic management to deal with resource scarcity in their environments. They do not always carry out their social actions as something „in fashion,“ which can happen in larger companies, but rather as a central strategic action for their survival.

This study has established that, due to the nature of SBS, their scope of action and interests, social alliances are deeply rooted in the locale in terms of products and practices. This represents an advantage, because establishing new ties in local environments between enterprises and communities, has enabled the possibility to build conjoint solutions to meeting basic needs rooted in local understandings of their own problems, interests and needs.

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# STUDY 05

05  
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# HEALTH CARE PROVIDERS

## AT THE BASE OF THE PYRAMIDE

### INTRODUCTION

Innovative organizational models that solve social issues with business means, blur traditional sector boundaries, and simultaneously create social and financial value have attracted attention in recent years (Nicholls & Murdock, 2012). This trend is particularly salient in emerging economies where the provision of public and social goods is typically organized in mixed markets, meaning that players from diverse backgrounds collaborate and/or compete with each other over customers and resources (Marwell & McInerney, 2005).

# KEY OBSERVATIONS ESSENCE

## THE PARADOX OF DEVELOPMENT IN HEALTH MARKETS

Health is not only a central human need, it is also a huge market that attracts both philanthropic and commercial actors (Cruikshank, Bartlett, & Taylor, 2014; International Finance Corporation, 2007). Throughout the literature on health sectors in developing and emerging economies, similar patterns are repeatedly described; the researcher acknowledges, however, that these observations are not representative of all of them. Based on a review of the literature and interviews with case study representatives and health experts in Colombia, Mexico, Kenya, and South Africa, the characteristics of the four health markets were identified. Although they differ considerably with regard to the way they are organized, as well as their outcomes, they also share some characteristics that can be considered as typical for developing and emerging economies with social and economic progress and a favorable attitude toward economic liberalization.

One of the common characteristics of these health markets is their high level of institutional complexity (Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011). They are, for instance, characterized by high degrees of fragmentation and segmentation, that is, respectively, the “coexistence of various health subsystems with distinct financing, affiliation, and provision arrangements ‘specialized’ for different segments of the population according to their income level and social position” and the “existence of many non-integrated entities within the system that operate without synergy and often even compete” (Pan American Health Organization [PAHO], 2008, p. 35). More specifically, actors from the public, the commercial and the third sector co-exist, collaborate and compete in these

mixed markets (Evers, 2005; Marwell & McInerney, 2005). In addition, a widely unregulated health market, encompassing informal chemists, traditional healers, and other providers that are not part of the formal health system, largely provides health services to low-income populations.

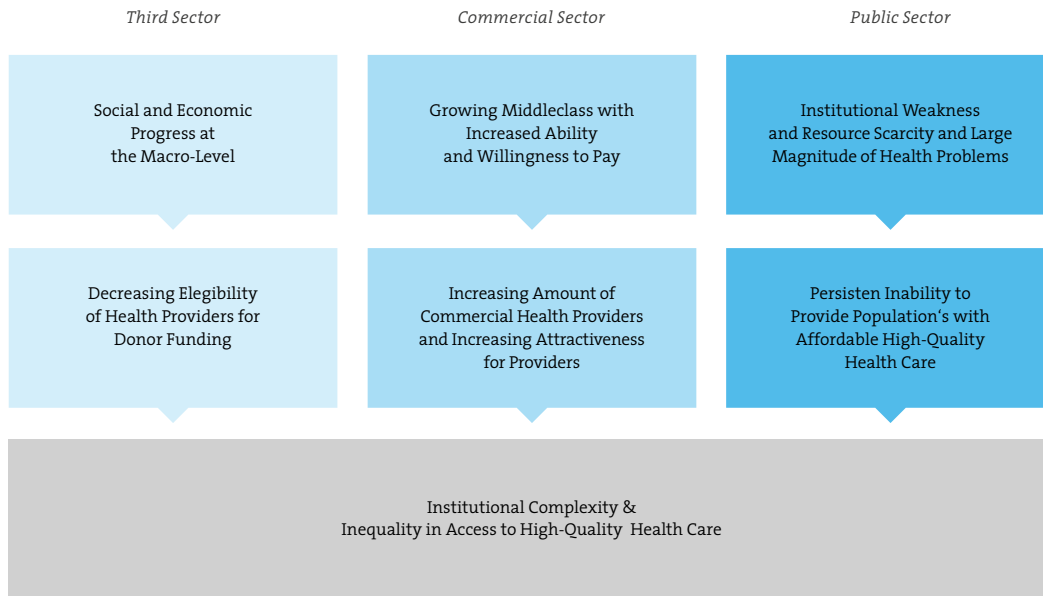
Through the analysis of Colombia, Mexico, Kenya and South Africa, three trends in the public, the commercial and the third sector have furthermore been identified, which together result in what can be termed a paradox of development. On the one hand, countries make progress on a social and economic level. On the other hand, this progress results in dynamics that not only increase institutional complexity in health markets, but also the inequality in access to affordable, high-quality health care (see figure 1).

## THIRD SECTOR

All four countries studied show different but overall considerable progress in terms of social and economic development. Economic growth is reflected in Mexico’s long membership in the Organization for Economic Cooperation and Development (since 1994) and in the recent launch of OECD membership talks with South Africa and Colombia.

1) Institutional logics are defined as “the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality” (Thornton & Ocasio, 2008, p. 804).

**FIG. 01**  
**KEY TRENDS UNDERLYING THE PARADOX**  
**OF DEVELOPMENT IN HEALTH MARKETS**



Kenya has attracted the attention of investors; not only has it shown continuous economic growth for several years, it also represents the main entry point for actors interested in the East African region. Progress in social development can be seen in the introduction of national health insurance schemes in Colombia and Mexico, both of which have extensive programs that provide coverage including for people living at the BoP. Although South Africa and Kenya have expressed their intention to introduce similar programs, they have not yet passed the stage of pilot projects.

As a result of these progresses, particularly the economic growth in Colombia, Mexico and South Africa, the countries have become decreasingly eligible for donor money as they are expected to make use of economic progress for the implementation of social programs including health insurance and provision. Economic indicators such as GDP remain the basis for decisions about which countries to support, especially in large development organizations. The quality of social programs – in this case health programs – is rarely taken into account, although they often show considerable deficiencies.

**COMMERCIAL SECTOR**

At the same time, the middle class in emerging economies is growing and increasingly becoming more value conscious. As it generally takes a considerable amount of time to be treated in public health facilities, the opportunity costs for

people that spend hours or even days in waiting lines and can't generate income in this time are high. Consequently, middle-income people are often willing to spend money for health care, but they seek the best value for their money. The growing middle class thus represents an attractive market for commercial providers of health-related goods and services, which simultaneously results in an increased interest of profit seeking investors.

**PUBLIC SECTOR**

Despite the social and economic growth of countries at the macro-level, the just-mentioned dynamics as well as the prevalence of institutional weaknesses and resource scarcity still leave low-income people with little to no access to high-quality health care services and products. Even in countries that do have national health insurance in place, high-quality health care remains largely inaccessible to the poor. In Mexico and Colombia health providers can affiliate to the public health system and generate revenues by selling their services to the national health insurances. However, in both countries the national health insurances are chronically underfinanced and/or shaken by corruption scandals. Organizations that depend on these revenues thus face considerable financial challenges and need to rely on out-of-pocket payments to ensure their financial survival. Ultimately, public health systems often remain unable to provide durable, affordable, high-quality health care solution for the poor.

**THE PROPOSITION OF HYBRID HEALTH ORGANIZATIONS AT THE BOP**

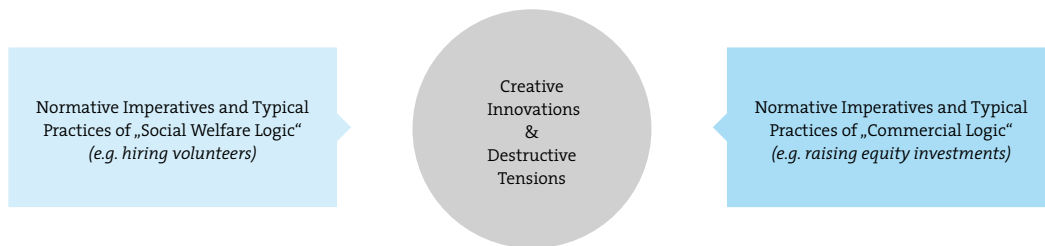
Given this background, a growing number of hybrid organizations have emerged trying to make sense of this pluralistic environment. Hybrid organizations, defined as organizations that internalize multiple logics within one organizational construct (Battilana & Lee, 2014; Billis, 2010), have received increasing attention over the last few years predominantly from management and organizational researchers. By combining the elements of multiple logics they propose innovative solutions, for instance, by allocating resources from the commercial and the third sector, which have traditionally been in antagonistic positions (Pache & Santos, 2012). In this study, they refer to organizations with the blended value-creating objective of developing financially sustainable solutions and making high-quality health care accessible as well as affordable for low-income populations. Given the prevalence of unmet health needs in developing and emerging economies and the increasingly stressed ability and willingness of low-income people to pay for high-quality health services, a considerable number of entrepreneurs, private investors, corporations, international development agencies, and philanthropic organizations have started to explore blended value-creating opportunities in health markets at the BoP (see Cruikshank, Bartlett, & Taylor, 2014;

International Finance Corporation, 2007). In other words, the organizations under study include for-profit and nonprofit organizations, which combine elements and resources from the commercial and the social welfare logic (see figure 2).

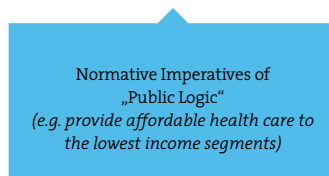
Particularly in the context of developing and emerging economies, where institutional complexity prevails and resources are scarce (Desa, 2011, Desa & Basu, 2013), hybrid organizations are an interesting object of study for learning about innovative ways to organize and foster social and economic development. The organizations of this study are furthermore based on the BoP proposition, which has created considerable attention among scholars and practitioners in recent years (Kolk, Rivera-Santos, & Rufin, 2013). First introduced by Prahalad and Hart in 1999, the BoP proposition stresses the existence of an untapped “fortune at the bottom of the pyramid” – that is, in low-income settings. Prahalad and Hart claimed that poverty reduction does not necessarily have to happen at the expense of profit generation. If innovative business models are applied on a large scale, the BoP offers a huge potential market, which has so far largely been neglected and in which both social and economic value can be created in a mutually beneficial way.

**FIG. 02**  
**COMBINATION OF SECTOR LOGICS IN HYBRID HEALTH CARE ORGANIZATIONS AT THE BOP**

*BoP Proposition/  
Blended Value Creation*



*Nature of Health Care as a Public Good*



‘Hybrid organizations operating in BoP health markets need to manage a variety of expectations that may not only spur innovation, but also engender tensions.’

However, with health care being a public good and a human right, the hybrid organizations of this study are furthermore exposed to the normative imperatives of the public logic. They are, for instance, frequently expected to serve the lowest income segments of the population, which lack the ability to pay for health services. In sum, hybrid organizations operating in BoP health markets need to manage a variety of expectations that may not only spur innovation, but also engender tensions (Battilana & Dorado, 2010; Pache & Santos, 2012)

#### DISENTANGLING TENSIONS IN HYBRID HEALTH CARE ORGANIZATIONS AT THE BOP

So far there are only a relatively few examples of commercially and socially successful BoP approaches on a large scale (Kolk, Rivera-Santos, & Rufin, 2013). Evidence from microfinance, the best-known example of large-scale blended value-creating approaches at the BoP, even triggered controversy about the actual social impact as well as the legitimacy of “doing business with the poor” (United Nations Development Programme, 2008).

In addition, internal dynamics within hybrid organizations can also jeopardize both the achievement of aspired goals and organizational survival. For example: Deciding to set a profitable price adversely affects the objective of reaching the very poor, as they are by definition completely or partially unable to pay. So, if hybrid organizations decide to charge profitable prices, they risk attracting criticism and jeopardizing their organizational legitimacy. On the other hand, opting to give products for free or selling them below the profitability threshold negatively affects their goal of financial sustainability. Such trade-offs can cause significant confusion within organizations as the workforce lacks consistent guidance in assessing whether organizational outcomes are to be considered as successes or failures (Jay, 2013).

However, little research has so far been conducted to identify the concrete areas in which tensions occur as well as the nature of these tensions, their antecedents, and their implications for reaching the goal of creating blended value at the BoP.

#### AREAS IN WHICH TENSIONS MANIFEST AND TYPES OF TENSIONS

Through the analysis of eight different – nonprofit and for-profit – hybrid organizations providing health care to low-income people in Colombia, Mexico, Kenya, and South Africa, seven different clusters were identified in which tensions occur. Table 1 provides an overview of these clusters as well as examples of concrete tensions that the organizations studied have experienced. It has to be noted, however, that tensions in hybrid organizations are often interrelated and can occur simultaneously at different levels. As the analysis showed, tensions within strategy-making are repeatedly reflected in and related to other areas. Particularly the type of resources to which hybrid organizations refer has been identified as a key source of tensions.

The type of financial resources to which BoP initiatives have access is a key determinant of their success. Establishing innovative business models can prove to be very challenging as organizations often depend on traditional financing vehicles, with their peculiarities including criteria for funding decisions, return expectations, and accountability mechanisms. Furthermore, accessing a particular type of funding (such as donations) can result in path dependencies, meaning that organizations lock in irreversible, inflexible, and self-reinforcing dynamics that inhibit their strategic latitude (Sydow, Schreyögg, & Koch, 2009). Particularly nonprofit hybrid organizations have repeatedly reported that they are restricted in their operations because they cannot access funding that supports their organizational growth. Providing

**FIG. 03**  
**CLUSTERS AND EXAMPLES**  
**OF TENSIONS IN HYBRID HEALTH CARE**  
**ORGANIZATIONS AT THE BOP**

Cluster	Description	Social enterprises
Strategy	Organizations' deliberate process of developing a vision, a mission statement, as well as values and guiding principles	<ul style="list-style-type: none"> <li>- Commodification of health care vs. free access to health care</li> <li>- Collaboration vs. competition</li> <li>- Disrupt health markets vs. gain and maintain legitimacy from incumbent players</li> </ul>
Structure	Choice of legal form (for-profit/nonprofit)	<ul style="list-style-type: none"> <li>- Incorporate as a for-profit vs. incorporate as a nonprofit</li> </ul>
Financing	Type of financing on which organizations rely (equity, loans, grants, donations)	<ul style="list-style-type: none"> <li>- Establish innovative business model vs. rely on path dependencies of traditional funding mechanisms</li> </ul>
Governance	Systems and processes by which organizations are directed, controlled and held accountable	<ul style="list-style-type: none"> <li>- Empower vs. control</li> </ul>
Human Resources	Professional background and composition of workforce	<ul style="list-style-type: none"> <li>- Dominance of employees with professional background in third sector vs. gain acceptance for market-oriented business model</li> <li>- Business background of founders/management team vs. gain and maintain legitimacy in health markets</li> </ul>
Organizational Procedures	Level of standardization of organizational procedures	<ul style="list-style-type: none"> <li>- Business model based on scale and standardization vs. need to react to heterogeneity and unpredictability of BoP markets</li> </ul>
Product and service delivery and procurement	Practices related to product and service delivery (e.g. price setting) as well as procurement	<ul style="list-style-type: none"> <li>- Set prices based on costs vs. set affordable and competitive prices</li> <li>- Define product and service portfolio based on social rationale vs. based on revenue expectations</li> <li>- Procure subsidized products vs. establish financially sustainable / profitable organization</li> </ul>



working capital, for instance, is a concept with which most funders are uncomfortable since it does not provide a concrete demonstration of where the money has gone.

Human resources are equally essential to the functioning of organizations and have been identified as key carriers of institutional logics (Battilana & Dorado, 2010), meaning that they carry pre-defined conceptions about appropriate organizational goals, structures and practices. The composition of the workforce therefore also influences the ability of hybrid organizations to pursue their strategic objectives. A dominance of employees who adhere to the social welfare logic because they have a professional background in the third sector, may, for instance, result in a lack of acceptance for market-oriented organizational behavior.

Finally, hybrid organizations operating at the BoP can benefit from their hybrid nature when procuring goods or services needed for their operations. An emphasis on the social welfare logic, for instance, may grant them access to subsidized supplies that they can pass on to their patients. However, similar to tensions in the financing and human resources clusters, such advantages are generally only granted with strings attached that limit an organization's strategic latitude. For instance: Passing on subsidized products to patients engenders costs that donors are often not willing to cover.

#### LEGITIMACY ADVANTAGES OF FOR-PROFIT HYBRID ORGANIZATIONS

By comparing the for-profit and the nonprofit health care organizations under study, the empirical material revealed that, for-profit organizations currently benefit from legitimacy advantages in establishing blended value creating models when compared to their nonprofit counterparts. These legitimacy advantages are rooted in field-level and logic-specific reasons.

First, at the field level, the current shift toward market-orientation within the global development regime privileges for-profit hybrid organizations. Although the for-profit cases didn't perform better than the nonprofits in terms of social and financial value creation, they were more eligible to funding and benefitted from more strategic latitude in implementing their innovative business models. In addition, the for-profit cases received substantial management support from accelerator or incubator programs, which helped them, among others, to anticipate and manage tensions between the commercial, the social welfare and the public logic more effectively. This reflects prior research, which has shown that an increasing amount of resourceful actors are focusing on the support of for-profit hybrid organizations at the BoP (Hanley, Laucke, & Weiss, 2015).

Second, with regard to logic specific reasons, the study revealed that for-profit and nonprofit hybrid organizations experience tensions differently. For instance, several nonprofits faced the dilemma between collaborating with public entities and competing with them experienced this tension as a substantial threat to their organizations. Both internal and external stakeholders expected the nonprofits to collaborate

'The study revealed that for-profit and nonprofit hybrid organizations experience tensions differently.'

with public entities as they pursued the same or similar social goals. However, collaborating with public entities also proved to be a substantial threat for organizations, particularly when they depended financially on income streams from public sources, which were subject to institutional weaknesses, resource scarcity and thus volatility. In other words, nonprofit hybrid organizations experienced how the tension between collaboration and competition easily evolved into a normatively rooted tension over goals (A.-C. Pache & Santos, 2010). As prior institutional research has suggested, such tensions are likely to represent substantial threats for organizations as they affect their very core and question their legitimacy.

'Tensions are likely to represent substantial threats for organizations as they affect their very core and question their legitimacy.'

For-profits, in contrast, often referred to the strategy of proposing an alternative to public health systems by explicitly emphasizing the institutional weaknesses and resource scarcity that prevail there. They showed willingness to collaborate with public health players, but only if it contributed to their goal of establishing a financially sustainable organization, which is a legitimate objective for an organization that is primarily attributed to the commercial logic. For-profits thus faced the very same tension between collaboration and competition as a tension over means, which according to prior institutional research is easier to resolve than a tension over goals (ibid).

# RECOMMENDATIONS FOR POLICY MAKERS AND PRACTITIONERS

## OPINION

This study supports prior research suggesting that combining the commercial, the social welfare and the public logic within one organizational construct produces tensions. However, in contrast to prior studies, which have focused on organizational level strategies to manage those tensions, this study has emphasized the influence of field-level factors on tensions in hybrid health care organizations at the BoP. It has shown that the way hybrid organizations experience tensions and the way they are able to manage them is induced through the supporting ecosystem that surrounds them. Although the concept of hybrid organizations, which try to capitalize on the strengths and resources of the commercial, the social welfare and the public sector has attracted interest from actors across all sectors, the ecosystem around those organizations remains divided. An increasing number of funders are trying to respond to the needs of hybrid organizations. However, actors are still few and many organizations do not succeed in acquiring such “hybrid funding”<sup>2</sup>. The large majority of funders that support hybrid health care organizations focus on for-profit organizations. As this study has shown, this trend results in legitimacy advantages for for-profit hybrid organizations, and helps them to better manage tensions between the social welfare, the commercial and the public logic. Nonprofit organizations, in contrast, largely lack access to supporting mechanisms that are designed to meet the needs of hybrid organizations. Hence, they rely more strongly on traditional

nonprofit funding, that is grants and donations, which keeps them locked in traditional path dependencies of third sector funding.

The researcher, however, argues that continuing to support nonprofit hybrid organizations in health care is of crucial importance. As other sectors such as microfinance have shown, the development of innovative business models that create blended value can take several decades during which profit-making is not feasible. Focusing on profit-making at the BoP is likely to result in a focus on sweet spots, meaning that business models neglect unprofitable activities, such as providing health care to income levels that have no means to pay. Nonprofit hybrid organizations are important to foster innovation in business models at the BoP and thus need to be supported with tailor-made supporting mechanisms.

2) New types of financing vehicles are currently being developed in the field of “social investing.” These financial innovations are built to meet the needs of organizations that seek to create blended value. Although an increasing number of actors including development organizations, commercial investors and organizations from the public and third sector among others are entering the field, it still remains in a pre-paradigmatic state with limited amount of funding available (Hanley, Laucke, & Weiss, 2015).

# RESEARCH PARAMETER AND CONCLUSION

## RESEARCH PARAMETERS

The objective of this study was to specify the tensions that hybrid health organizations face when trying to create blended value at the BoP. By focusing on health care organizations operating in different developing and emerging economies – Colombia, Mexico, Kenya, and South Africa – the concrete tensions between competing logics were determined in order to understand at which specific levels they manifest and what kind of tensions are particularly abundant. With this, the study aims to contribute to a better understanding of the antecedents and manifestation of tensions within affordable health care providing organizations at the BoP as well as to further the general theory development about tensions in hybrid organizations.

The research has been conducted as a comparative study between eight hybrid organizations – including nonprofit and for-profit organizations – that operate in Colombia, Kenya, Mexico and South Africa. All four countries show considerable – although different – progress in terms of social and economic development. In addition, they show a strong tendency to support economic liberalization and high levels of institutional complexity, meaning here that actors adhering to the commercial, the social welfare and the public logic co-exist, collaborate and compete over the same resources and customers. Findings presented here are thus likely to apply to other countries that share similar characteristics in their health markets.

## CONCLUSION

In the context of developing and emerging economies, where health care markets are highly fragmented and characterized by resource scarcity, hybrid organizations such as social enterprises offer a promising approach. By combining elements from diverse sector logics within one organizational construct and mobilizing resources from both the nonprofit and the for-profit world, they seek to provide affordable health care to the poor in a financially sustainable or profitable way. This promising proposition has raised considerable interest among scholars and practitioners. However, hybrid organizations still face considerable tensions when trying to fulfill the BoP proposition and to reconcile the social welfare, the commercial and the public logics. Many of the tensions can be resolved at an organizational level over time through innovative management techniques. A large share of the tensions, however, is related to the prevailing divide between sector logics in the larger ecosystem in which hybrid organizations are embedded. Particularly nonprofit hybrid organizations suffer from this divide as they lack access to tailor-made supporting mechanisms for their blended value creating endeavors. Therefore, more actors belonging to this wider ecosystem need to overcome remaining indispositions to blur sector boundaries if blended value creation at the BoP is to be made possible at a larger scale.

# STUDY 06

06  
FIKRU ARJA  
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ADAMA  
SCIENCE & TECHNOLOGY  
UNIVERSITY

# THE NEED FOR ALTERNATIVE TECHNOLOGY ADOPTION

IN

RURAL HOUSEHOLDS  
IN ETHIOPIA: DATA FROM BIOGAS  
USE IN TWO REGIONS

# CHALLENGES FOR THE ETHIOPIAN ENERGY SECTOR

## INTRO

### INTRODUCTION

According to the International Energy Agency (IEA), 2.6 billion people worldwide rely on biomass for cooking and more than 1.3 billion have no access to electricity (IEA, 2013). Over 95% of these populations are situated in South Asia and sub-Saharan Africa (ibid). According to data from the Ethiopian Electric Power Corporation (EEPCCO, 2013) less than 10% households have access to electricity in Ethiopia. Biomass is the dominant energy source in Ethiopia and accounts for approximately 95% of the household fuel energy consumption (Embassy of Japan, 2008; GIZ 2011; Wolde-Ghiorgis 2002). Access to clean energy is important, as Karekezi, et al. argue that lack of access to clean and affordable energy has a direct relationship with poverty (2012).

Studies on clean energy challenges in Sub-Saharan Africa identify 'institutional make-ups' as the determining factor influencing current and future energy use in the region (Davidson et al., 2007; Karekezi and Kithyom, 2003). The discourse regarding public versus private coordination and delivery of energy generation and distribution is an unresolved political debate in Ethiopia. At present, Ethiopia has a long tradition of public ownership and coordination

of electricity generation and distribution. Through a review of empirical data collected from Ethiopian Electric Power Corporation (EEPCCO) and a survey by the author on renewable energy projects implemented by the Ethiopian Rural Energy Development and Promotion Center (EREDPC), this paper provides an overview of how public coordination has impacted technological adoption as well as attitudes and behaviors of the target population of renewable energy projects.

# KEY OBSERVATIONS

## ESSENCE

### A BRIEF HISTORY OF ELECTRIFICATION IN ETHIOPIA

Electricity was first introduced in Ethiopia in 1898 (EEPCO, 2013). At that time the energy access was offered only to the royal palace of Emperor Minilik II. In 1912, the emperor installed a hydroelectric power plant on the Akaki River near Addis Ababa which provided for the first time energy access to citizens (ibid.). From 1936 to 1941, electricity generation and distribution expanded under Italian management. After the Italians left the country in 1941, a finance office was established to oversee the administration of “enemy property,” which took over control of electricity production and distribution (ibid.). In 1956, this became the Ethiopian Electric Power Authority. In 2005 it was renamed the Ethiopian Electric Power Corporation; EEPCO is a public regulatory agency as well as mandated to generate and distribute electricity all over the country. After more than a century of introducing electricity technology in Ethiopia, the Central Statistics Agency (CSA) reports that 23% of total population in the country has access to electricity of which over 99% of electricity is generated from hydropower (CSA, 2012). It is important to note that energy services are subsidized by the government in Ethiopia, although only a fraction of the country’s population has access to the service.

### ELECTRICITY DISTRIBUTION AND CONSUMPTION IN ETHIOPIA

According to the International Energy Agency (IEA), Ethiopia ranked 62 out of 64 energy-poor countries in 2011 (IEA, 2013). Compared to other East African countries, per capita electricity consumption in Ethiopia is one of the lowest at the regional level, only slightly surpassing Burundi (Figure

1). Although Ethiopia follows a regional self-administration model of governance, not one regional state exercises their right to generate and distribute electricity. Even though regionalization efforts and entrepreneurial approaches might trigger innovation and improve efficiency in energy generation and distribution, there have been virtually no such attempts in the last century. According to the 2013 EEPCO sales data, the proportion of households supplied with electricity from private enterprise is about 8.7%<sup>1</sup> (EEPCO, 2013). In 2010, the government of Ethiopia reported that electricity coverage had reached 41% (FDRE, 2010). Despite a lack of clarity on the percent of the population with electricity access, a general dissatisfaction with electricity services among the public can be observed.

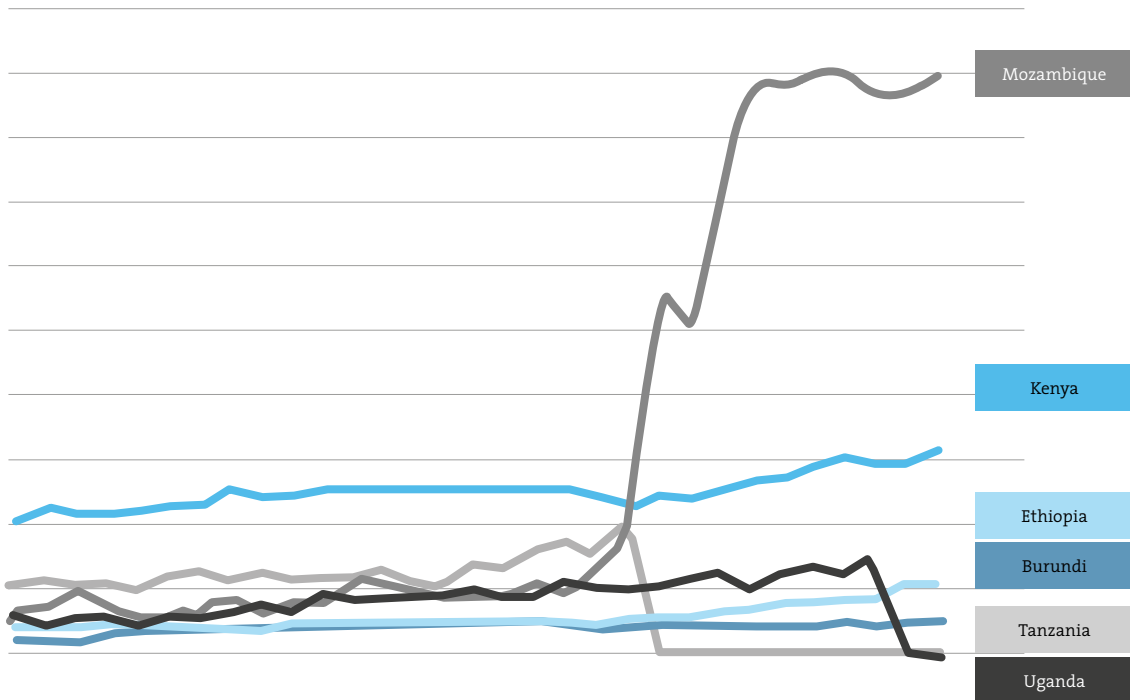
More than one hundred years after electrification, the number of firms engaged in generation or distribution of electricity are few. Under the control of a public monopoly, households, particularly in rural areas, have had limited options to adopt modern energy technologies to meet their clean energy needs. Even though over 80% of the Ethiopian population bases their livelihood on agriculture in rural villages, access to electricity from the grid is only 5% for rural communities (CSA, 2012). Figure

1) This figure is computed by dividing the total number of households subscribed to electrical services by the total number of households in Ethiopia, estimated at 18 million (CSA, 2012). As of 2012, there were 1,570,017 domestic EEPCO customers (EEPCO, 2013 internal sales data compiled by EEPCO, accessed in 2013), which holds the monopoly on electric service in Ethiopia.

**FIG. 1**  
**PER CAPITA ELECTRICITY CONSUMPTION IN ETHIOPIA COMPARED**  
**WITH SELECTED EAST AFRICAN COUNTRIES**

Source: United States Government Energy Information Administration (2013)

per capita  
 electricity  
 consumption  
 (kw/h)



2 shows electricity distribution patterns in different regions in Ethiopia between 1955 to 2015. More than half of electricity that the country generates is consumed in the capital city, Addis Ababa. It is clear from the figure that people living in remote areas receive a low share of the electricity generated.

**CHALLENGES TO CLEAN ENERGY ACCESS IN ETHIOPIA**

The challenges to clean energy access in Ethiopia are not limited to institutional bureaucracy and inefficiency but are also associated with technological limitations. The construction of dams and generators is expensive and the transmission and distribution of electricity over long distances are also costly activities. For instance, it costs ETB 13,570 to ETB 169,630<sup>2</sup> \$800 to \$10,000 to lay 1km of cable; the cost climbs to ETB 373,186 (\$22,000) per km over difficult terrain, which is the case for many rural areas (Glania et. al., 2011). Given Ethiopian geography and the scattered location of rural households, it is expensive to distribute electricity with traditional technology.

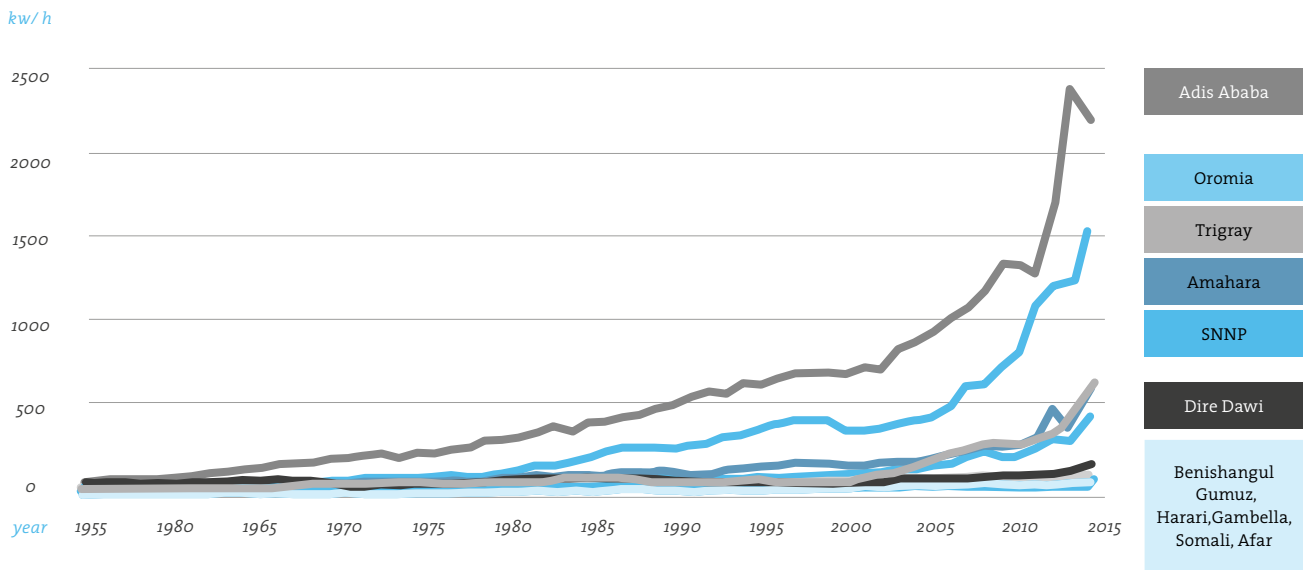
Aid and grants to finance electricity generation projects in Ethiopia and other developing countries is insufficient (World Bank, 2014). Martinot et al. (2001, pp. 41-42) looked at the effectiveness of projects initiated by the World Bank and the Global Environment Facility (GEF) that attempted to disseminate alternative clean energy sources, specifically solar home systems, to off-grid households for the years 1992-2000<sup>3</sup>. The intervention of the World Bank and GEF may not be in vain in the long run, however the sustainability of clean energy adoption in developing countries has a long way to go before households in need receive assistance. For instance,

Fig.1) United States Government Energy Information Administration, EIA, 2013; <http://www.eia.gov/>), United Nations World Population prospect, 2012; <http://esa.un.org/unpd/wpp/>  
 2) One US Dollar is equivalent to 16.963 Ethiopian Birr as on 2011 exchange rate (<http://www.exchangerates.org.uk>)  
 3) In in India, Vietnam, China, Bangladesh, Sri Lanka, Indonesia, Kenya, Morocco, Laos, Argentina, Cape Verde, Benin, and Togo.



**FIG. 2**  
ELECTRICITY DISTRIBUTION IN DIFFERENT ADMINISTRATIVE  
REGIONS OF ETHIOPIA, 1955-2015

Source: EEPCO (2013)



Lemaire (2010) pointed out that photovoltaic systems are often abandoned after only a few years of their installation when international donors cease funding (p. 227). International discourse among countries with regard to energy and environmental preservation often ends up with little consensus. Technological dependency and poor coordination at the global level undermine local action. In addition, the capability of local institutions to represent the interest of local population is questionable.

In 2008, a comprehensive plan to disseminate biogas technology to rural households was introduced in Ethiopia. The program was part of a green energy initiative in Africa referred to as “Biogas for Better Life: An African Initiative” launched in May 2007 in Nairobi, Kenya (Sonder, 2007). The initiative included sixteen Sub-saharan African countries and aimed at building two million domestic biogas plants in Africa by 2020. In Ethiopia, the Netherlands Development Organisation (SNV) and the Ethiopian Rural Energy Development and Promotion

Center (EREDPC), an agency of the Ethiopian government, were responsible for the implementation of the project. The SNV provided technical support whereas EREDPC assumed ownership of the plants (EREDPC, 2008). It was planned to install 14,000 domestic biogas plants with an estimated cost of ETB 208 million<sup>4</sup> (USD 22.72 million) during the first phase of the project from 2008-2012. However, the Ministry of Water and Energy (MWE) reported 5000 biogas plants were built at the end of 2013. That is about 36% of planned size (MWE author interview, 2013). The following section will examine a sample of these plants in two regions in Ethiopia.

Fig.2) Data source: EEPCO, 2013

4) The figure in currency of ETB (Ethiopian Birr) and USD (United State Dollar) is obtained by converting total project cost given by Euro European Union Currency of 16.6 million in the PID (Project Implementation Document), PID(2008). The conversion is based on year's average of 2007 Euro to USD (1USD= 0.730695 Euro). Currency information Source: <http://www.x-rates.com/average/?from=USD&to=EUR&amount=1&year=2007>

‘Dependency on biomass for energy is high  
and the adoption of more efficient technologies  
is low in both regions.’

**ENERGY SOURCES IN ETHIOPIA:  
PRELIMINARY EVIDENCE FROM THE REGIONS  
OF OROMIA AND THE SOUTHERN NATIONS,  
NATIONALITIES, AND PEOPLES (SNNP)**

Biomass (wood, charcoal, dung, agricultural residues, etc.) provides 95% of the energy consumption of households in Ethiopia for heating and cooking (GIZ, 2011 Embassy of Japan, 2008; Wolde-Ghiorgis, 2002). Despite the relative abundance of biomass, it cannot meet the growing energy demands of the country. The extent to which alternative energy sources and efficient technologies are adopted among households might be an indication of the effectiveness of institutional coordination by concerned actors.

This section explores the characteristics of energy use and challenges to implement efficient energy technologies in rural parts of the country. The author gathered data from households adopting biogas technology in Oromia and South Nations Nationalities and People (SNNP) regions. The data was collected through structured, in-house interviews with household in Oromia and (SNNP) regional states. The interview questionnaire was prepared in two local languages, Afan Orom and Amharic, as well as English. The interviews took 45 to 55 minutes to complete with each respondent. Overall, 34 questions were administered on various issues related to households energy technology(s) and demographic information.

The findings from the sample shows that wood, dung, and straw biomass are the dominant sources of energy for heating/cooking purposes (figure 3). When asked the most frequently used energy sources, 68% replied wood is their dominant energy source (ibid). Dung (15%), straw (5%), and charcoal (1%) are not regularly used by most households (ibid). When comparing samples from two regions, households in SNNP rely more on biomass compared to households in Oromia (figures 3 & 4). More than 60% of households sampled from SNNP

reported they use wood for heating and cooking and only 40% in Oromia. This variation can likely be attributed to either low technological diffusion and low access to electricity and related technologies in SNNP or relatively higher wood price in Oromia region (Adeola and Ewah, 2009). Regardless of the variations in source and frequency, what is evident is that dependency on biomass for energy is high and the adoption of more efficient technologies is low in both regions (Figures 3 & 4).

When households were asked whether energy expenditure is significant relative to their income, 85% of respondents indicated that it is a major household expenditure. The monthly budget for energy ranges between etb 70 and etb 12,6205 (figure 5). The high variability is likely due to households engaged in ‘arake’ business activities, particularly in the preparation. These households reported high fuel expenditures whereas those that obtained wood from their own farm reported less. ‘Arake’ business owners estimate that their business consumes more than one tone (1000kg) of wood per month. There is also significant variation on energy expenditure among households grouped into regions (figure 5). However, this variation does not mean that households in the two regions vary in their energy consumptions, it mainly signifies the variation in prices and or types of energy technologies that households employ. The monthly energy expenditure of households is not insignificant (ibid). The average expenditure for fuel and light is etb 621.26 (us\$30). When comparing sample households’ that have electricity in their home with those that do not, the expenditure for energy is higher among households that have no electricity. When comparing monthly average energy expenditure of sample households, sampled households in snnp reported lower energy expenditure than those in Oromia (ibid).

5) The range is approximately 15 cents to over 500 USD.

‘The extent to which alternative energy sources and efficient technologies are adopted among households might be an indication of the effectiveness of institutional coordination.’

Examining the usefulness and the problems with the biogas plants was a key aspect of the survey. 52% of the survey respondents reported that the newly built biogas plants were no longer in use (Figure 7). The number of abandoned plants is higher in the Oromia region than in snnr. Field observations indicated that the abandonment rate is likely higher than what households reported in the survey. This leads to questions regarding the validity of the study carried out by the cooperating organizations, as well as the capacity of the institutions involved. The study indicated that “At least over one million households in Tigray, Amhara, Oromia and Southern Nations, Nationalities and Peoples regional states qualify for the installation of a domestic biogas plant... An estimated 500,000 households in the four selected region have an annual income above etb 4,000 and can theoretically afford to install a biogas plant (eredpc\_pdi, 2008, p. ii).”

The eredpc described the benefits of installing biogas “...the reduced use of fuel wood, improved living conditions and improved soil fertility through the use of bio-slurry. Additionally biogas contributes to the reduction of greenhouse gases and to job creation. (eredpc\_pdi, 2008, p. ii).” From a technological and economic point of view, biogas technology was considered a feasible solution for rural energy needs (Sonder, 2007). Though there is no accurate historical records when biogas technology was first adopted in Ethiopia, it was mentioned that giz (Deutsche Gesellschaft für Technische Zusammenarbeit) implemented the first biogas projects in India and Ethiopia in 1977 (Werner, et. al. 1989). According to eredpc, there were about 1000 domestic biogas plants built in Ethiopia between 1979 to 2007 and approximately 50% are still functional (eredpc\_pid, 2008, p. ii).

The “Biogas for Better Life: An African Initiative,” was a tremendous endeavour, particularly in comparison to the limited initiatives in the decades before. The project targeted

low income rural farm households with a minimum number of cows that could supply 20kg of dung per day. The project also promised to offer a 40% subsidy on the construction cost of the biogas plant (eredpc\_pid, 2008; figure 6). However, the failure of household adoption of the biogas technology leads to questions regarding the effectiveness of the implementation plan. The complexity of relationships between foreign donors,

‘Technology adoption can lead to economic and social improvements.’

the central government, the province/zone, the district, and the household, which were involved in the implementation of the biogas project likely made project coordination difficult. Respondents were asked to describe the challenges they encountered with adoption of biogas technology, respondents have raised different issues. The most frequently cited problem was managing the slurry, as well as maintenance and insufficient energy production (not enough gas) (Table 1). The most frequently cited difficulty was managing biogas slurry. Though biogas slurry is a useful outcome, the users reported that they do not have the tools or skills to manage the slurry. In addition, the users complained that the biogas dome was located too close to their house. Therefore, the majority of the users reported that it did not meet their expectations, even though they had made significant investment in its acquisition (figure 7).

**TABLE 1**  
**EXPERINCES OF BIOGAS TECHNOLOGY ADOPTORS IN ETHIOPIA**

Author Survey, April-July, 2013; Sample size =1631

<i>Phenomenon described by sample households</i>	<i>Frequency</i>
Managing biogas slurry is difficult; we don't have enough space/tool to store/move the slurry	41.7
We don't get spares ( lamp, stove) and maintenance services in case of malfunctioning	32.5
The gas is not enough/interrupts in the middle of lighting or cooking	29.2
Filling biogas pit is initially difficult as it requires a lot of dung and we don't have enough dung	28.3
Biogas output is not good as it was initially told to us; it started deteriorating as time went by	27.5
Adding water and dung every day is labors routine.	26.7
We don't have water (every day) to fill the dome everyday	25.8
We don't have sufficient knowledge on usage and maintenance of biogas tech	25.8
Biogas construction cost is much to bear	25.0
There is no demand for biogas slurry; no body is willing to take it for free	23.3
We are not able to bake injera with biogas	23.3
There is only one lamp, which you can't move	20.8
The biogas plant is located so near to our living room	17.5
People in our home don't like to accomplish daily routines of biogas	13.3
There is no gas that comes from the pit; though we add dung & water until it overflow	12.5
Promoters (marketers) over promised; as nothing is to the promises in actual use	12.5
Smell of dung/slurry is not good for health	12.5
The contractors has badly built or left without completing our biogas plant	11.7
I sold my cows so that I stopped using biogas	7.5
Flood (water) enter into the dome during rain time	6.7
We are paying loans and interests without getting much from the technology	5.8
Children and animals enter/fall into slurry pit	5.0
The plant is not easily moveable when you change your location	4.2
The biogas smell is very bad as we have connected it with toilet	4.2

# THE RESEARCH METHODS

## DATA COLLECTION

Structured, in-house interviews were conducted using a questionnaire with 34 questions divided into three main categories. The questionnaire was translated into two local languages – Afan Orom and Amharic – in addition to the English version. The interview took 45 to 55 minutes to complete with each respondent.

General energy adoption questions included main source of fuel for cooking, heat, light as well as energy costs and energy technologies.

Demographic data included educational status of the household, estimated annual income of household and size of household. Data regarding the institutional arrangement to disseminate biogas technology was obtained from secondary sources. Biogas technology adoption questions included size and age of biogas plant, investment in biogas technology, ease of use of biogas technology, current functional status.

In addition, observational methods supported by photographic images of the biogas plants were used to understand usage status of biogas plants.

After completing the interview, each household was offered a Lexi pen worth 5 Ethiopian Birr (ETB) and 10 ETB in cash in return for their time and energy. A significant number of respondents refused to accept the cash.

## SAMPLE SELECTION

Rural households adopting biogas technology were the population of interest to the study. Two regions (Oromia and SNNP) were selected based on their geographic locations (this was an arbitrary selection). The list of households that adopted biogas technology was obtained from the respective regional state's biogas coordination office.

Eleven districts (woredas) were selected (six from Oromia and five from SNNP) based on the size of biogas technology adopters (purposive sampling) in the woreda.

The numbers of biogas adopters were not equally distributed in each Woreda.<sup>6</sup> Using a similar procedure six counties (kebeles)

were selected based on number of biogas adaptors in the woreda. Households adopting biogas technology were selected using snowball sampling techniques. The snowball sample limit was set to 200 households that adopted biogas technology. The number of households that agreed to be interviewed was 175. However, the number of households that completed the questionnaire were 161.<sup>4</sup>

The number of households adopting biogas technology is low; despite the advantages that the technology promised to the users. The adoption rate and quality doesn't vary among regions studied. The data also doesn't show variation in adoption due to demographic characteristics of the households adopting the technology. The incentives supplied to early adopters didn't result in attracting later adopters. The research suggests that the institutional structures designed to implement the project were unresponsive to challenges that early adopters faced and did not adjust the project in later phases.

## POLICY RECOMMENDATIONS

Technology adoption can lead to economic and social improvements. What kind of technology to adopt and the best way to implement it are challenging questions policy makers and development organizations face. Several useful plans and programs fail mainly because of the costs associated with the institutional arrangements that set rules and monitor the activities. There remain unresolved disputes in selecting the institutional arrangement, such as 'formalized' vs 'non-formalized' or 'institutional' vs 'entrepreneurial'. In the context of Ethiopia, the scenario is very complex. This research finds that the use of formal institutional arrangements, as witnessed in the biogas technology program, has little influence on the behavior of the users. Accessing informal arrangements, such as local entrepreneurs, could have created a better and more flexible feedback cycle in order to improve the implementation and usage of the biogas technology. The inability of the formal institution to incorporate feedback into later stages of the project hindered the use of biogas technology and the majority of users surveyed abandoned the technology.

<sup>6</sup> Approximately 30-50 kebeles comprise a Woreda/district

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## FEBRUARY 2016

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