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Economic Empowerment for Women in Francophone Africa

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Abstract

This paper explores the relationship between microfinance and women, specifically in the case of Senegal and how being a predominantly Muslim country relates to microfinance and women. I focus on how microfinance can improve the lives of women and help alleviate poverty around the world. I show that women are more likely to make investments that improve both their own and their children's lives than men. Further, women are reliable borrowers with high repayment rates and less risk than men. The social and macroeconomic structures in francophone Africa are shown to provide a fruitful environment for microfinance ventures. These facts combine to demonstrate how targeting women with microfinance leads to far improved outcomes relative to what can be achieved by targeting men. I contrast microfinance and more traditional charitable ventures and show that microfinance for women can achieve humanitarian goals.

Contents

1. Introduction & Roadmap

Billions of people in the world, especially women, lack the economic opportunities and access to financial services that are customary to most in the advanced nations. My research explores the question: how can capital be used effectively to better the lives of the poorest women in the world? The aim of my research is to explore economic empowerment for women in Africa as a catalyst for improving life in the most impoverished areas. Francophone Africa is home to some of the poorest countries in the world, but also to some of the largest growth rates[1]. Assessing whether or not financial services can be an effective alternative to traditional charitable donations offers a new way of thinking about humanitarian ventures that has the potential to avoid the pitfalls of charitable donations.

Absolute poverty is measured by a "poverty line" set at a certain income or consumption amount per year, based on the estimated basket of goods necessary for living. Global poverty is most often defined using the absolute poverty line set by the World Bank. A person making $2 a day or less is considered impoverished, and making less than one dollar a day or less is considered extreme poverty. Almost half the world's population lives in poverty, mostly in Sub-Saharan Africa and South Asia (Addae-Korankye, 2012:142).

My focus is on women without collateral in francophone Africa, specifically countries that use the Communauté Financière Africaine (CFA) franc currency in two regions. In West Africa (the main focus of this piece), these countries include, Sénégal,

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[1] The average GDP growth rate for the world falls between 2% and 3% while the growth rates for countries in francophone Africa fall between 6% and 9% (World Bank).

which is a chief research target of this paper, as well as Benin, Burkina Faso, Guinea-Bissau, Côte d'Ivoire, Mali, Niger and Togo. They form the West African Economic and Monetary Union, or WAEMU. Microfinance institutions in this economic zone face different laws than commercial banks, known as the PARMEC (Projet d'Appui a la Reglementation des Mutuelles d'Epargne et de Credit) Law. All countries in West Africa are also part of the Economic Community of West African States, or ECOWAS, with the goal of economic integration. In Central Africa, CFA means C*oopération financière en Afrique centrale*, and encompasses Cameroon, Central African Republic, Chad, Republic of the Congo, Equatorial Guinea and Gabon. The central African region is run by the Bank des Etats de l'Afrique Centrale (BEAC). Both of these currencies share the same fixed exchange rate with the euro and are guaranteed by the French treasury. This region is a plausible place for economic development to occur thanks to a stable macroeconomic environment with controlled inflation and foreign exchange risk, creating a positive investment climate, and initiatives for deregulation and privatization (Allen, Otchere and Senbet, 2011:88).

Many women in developing countries are disenfranchised from the traditional economy (Stein, Ardic and Hommes, 2013). Infrastructure and law may be two of the culprits, and my paper will explore each as a reason behind women's struggles. When women are able to interact with financial services, they tend to be reliable borrowers and invest in valuable processes such as education and health care for their children. This is demonstrated not only by women in economic decision making models but also by most political systems; when women receive the right to vote, more emphasis is placed on child welfare and public health spending (Kristof and WuDunn, 2009:198).

This paper will assess effective ways for women in developing countries to access capital while determining the consequences and impact of increased economic inclusion. Financial inclusion can be assessed on several levels such as through geographic access, or proximity to a provider and socioeconomic status, or the absence of exorbitant fees and documentation requirements. Forms of finance including informal systems, microcredit, microsavings, and microinsurance will be explained. The use of financial technology and mobile banking as solutions will be uncovered. I will explore women's habits as borrowers and spending and investment patterns with and without microfinance, and then examine factors such as nutrition, education, health care and decision-making power to determine the influence of microfinance on women's lives. Comparisons will be made on income and savings with and without loans or donations. The paper concludes that financial services for women offer practical and psychological benefits leading to investments that change their lives in the most meaningful way and improve their quality of life.

Following streams from financial institutions to individuals will determine various factors of success. I compare the structure of different microfinance institutions and the outcomes of various enhanced service programs offered, such as training classes and support groups, to assess their contribution. Determining whether participation in one microfinance program leads to further engagement with financial institutions will allow my research to gauge the long-term impact on women. In addition, the concept of women helping other women is explored through the study of various programs and case studies of loans conducted from one woman to another.

By looking at microfinance from an individual perspective, it is possible to determine how donors with humanitarian aspirations can make positive contributions to the world. By studying organizations and cases, it is clear when and why microfinance has been successful or fallen short. Other factors that can shape the outcome of microfinance, such as currency, infrastructure, laws, and cultural norms will be uncovered. The role of religion and the implementation of financial institutions in Muslim majority countries is addressed. I also analyze the role of factors such as institutional access, property rights, and safety. Through a comprehensive exploration of relevant literature, quantitative data, qualitative analysis, government, organization and individual sources, I aim to prove that economic empowerment for women is a viable solution to many of the world's problems.

Through the study of this topic, I hope to find a plausible way to create meaningful change in lives and the world. Poverty is an ongoing and complex issue in the world, and a topic that is hard to address. People around the world struggle to obtain simple things like water, food and education. Lack of health care and preventable diseases like malaria continues to devastate lives[2]. Empowering women through economic opportunities may be the strongest catalyst for change in the world's poorest regions. My belief is that if given the opportunity, women will invest in ways will most improve their lives and, in turn, lift entire communities. By way of economic inclusion, increased participation in the economy will also likely lead to more growth, productivity, security, and affluence for all. Empowering women economically may be the best way to promote development and improve lives, communities, and the world.

[2] Malaria is a major cause of death in the world and one of the biggest killers in all of human history. Around half the world's population is still at risk for Malaria, with Sub-Saharan Africa being disproportionately affected. Sleeping under mosquito nets protects against Malaria. Malaria leads to economic loss and perpetuates poverty (World Health Organization, 2016).

2. Literature Review

With 2005 being declared the Year of Microcredit and Mohammad Yunus, a father figure of the microfinance movement, having won the Nobel Prize in Economics in 2006, research on microfinance has expanded in the past decade. Microfinance coverage has shown significant growth since it began to take root. According to the Microcredit Summit Campaign, a non-profit co-founded by Muhammad Yunus, over a five year period the total number of microfinance institutions quadrupled, total number of clients was five times as large, as was the number of the "poorest" reached, which still remained almost half the size of the total client base (Microcredit Summit Campaign, 2016). Many experts praise microfinance as a solution for poverty. They adhere to the idea that by empowering people in poverty, donors and other humanitarians can make the soundest investments for the future of the poor. This notion can be taken one step further when considering women, who are known to be fiscally conservative; they tend to be reliable borrowers who invest in heath care and education for their children. Research shows that while repayment rates are higher for women than men, women still comprise the vast majority of the unbanked population (Beck, 2015). Considering evidence that points to women as reliable borrowers who make sound investments, there is justification for microfinance efforts to alleviate poverty focusing on women.

Because the microfinance movement has its roots in Asia, there is a host of information and research conducted in that region of the world. While microfinance did pick up in sub-Saharan Africa in the 1990s, there is not a lot known about its effectiveness in the poorest region of the world (van Rooyen, C., Stewart and T. de Wet, 2012). Sub-

Saharan Africa is an important area for microfinance research, considering the goal of microfinance is to serve the poor. Additionally, research on microfinance focusing on gender and women borrowers is lacking. Bridging the gap between the research on microfinance, Central and West Africa, and women may offer previously unchartered paths to economic empowerment and poverty alleviation.

Although most research focuses on one element, such as microfinance, financial inclusions for women, or situations in Africa, it is possible to detect some common themes through a comparison of a host of reports. It seems that many researchers, such as those at the World Bank, are more encouraged by the prospect of microsavings or combinations of financial services than microcredit alone, which they fear can have consequences due to obstacles like high interest rates (Beck, 2015:27). *Women, Business and the Law 2016: Getting to Equal* notes a lack of proper ID systems as a common challenge when accessing financial services in low-income countries. Experts also commonly cite a lack of financial literacy as another barrier to financial inclusion, which can potentially be resolved through enhanced service programs (Beck, 2015:6). Researchers seem intrigued by the concept of enhanced service programs such as support groups and training classes, but they acknowledge that there is a gap in current research on this topic and encourage further analysis.

Payment services are another sector of microfinance in need of more study. Many researchers find that payments, both formal and informal, are a challenge for people living in poverty due to issues such as security, transportation, and problems with holding cash. A startling figure from a report prepared by the World Bank Development Research Group, Bill & Melinda Gates Foundation, Women's World Banking and Better than Cash Alliance revealed that two billion people in the world have access to a mobile phone but not a bank account (World Bank Development Research Group et al., 2015). Practitioners argue that mobile phones provide solutions for digital payment programs, but further research is needed on both payment programs and mobile services.

Much of the research on microfinance, particularly when considering gender and regions of Africa, is mixed and/or inconclusive. Additionally, most results demonstrate that characteristics such as borrower circumstances and reasons behind the loan can alter findings. Researchers tend to disagree on the potential longevity of interaction with microfinance and the next steps after integrating the microfinance system (Beck, 2015). There also tends to be some disagreement regarding the proper way to conduct loan repayment processes. More research is required on the best format under which to conduct loan distribution/repayment. Some researchers are now showing a preference for cash transfers, rather than credit (van Rooyen, C., Stewart and T. de Wet, 2012). Research regarding the effects of time on microfinance and possible integration into other, more formal, financial services is required, as is a closer look at rural populations, who, despite needing financial assistance the most, tend to be ignored by the microfinance industry, which mostly operates in cities. Further research on microfinance, including its various sectors, services, and outcomes in a specific context of location, time, and individuals can provide fruitful information for fighting poverty.

As much of the research conducted on microfinance, especially as it pertains to Africa and women, can be considered incomplete, experts offer recommendations for further research. Their advice ranges from simply conducting more research to comparing related systems to specific calls to address challenges such as harmonizing micro and macro economic literature. C. Van Rooyen, R. Stewart and T. de Wet (2012) refer to an urgent need for assessing microfinance in Sub-Saharan Africa and to further dissect its effectiveness. The authors confirm that factors such as consumption, income patterns (growth/stability), nutrition, health care and education need examination. Current researchers also call for further studies to connect the micro and macro factors and outcomes by exploring different levels of society, including the individual, household, community, and economy. Most researchers agree that by studying microfinance, especially in Africa and with the emphasis focusing on women, they have become part of a welcome learning process.

Organizations like the World Bank and the World Economic Forum have found that while the world has been making progress over the past decade, there is more work to be done to improve economic functionality around the world, specifically as it relates to women. Two billion people in the world remain financially excluded, with access to financial services for the poor being an objective of the World Bank, which has been reaffirmed by the commitment to the Universal Access Goal by 2020. The World Bank report, *Women, Business and the Law 2016: Getting to Equal*, finds some startling statistics about the place of women in the economy around the world. It shows improvement for women from the previous report, *Women, Business and the Law 2014: Removing Restrictions to Enhance Gender Equality*. Likewise, the *Global Gender Gap Report,* put out by the World Economic Forum in 2015, showed progress from the first report in 2006, with many obstacles left to overcome. The topic of microfinance, specifically for women in French speaking Africa, which is bound by a common monetary and economic union, is a relatively new and relevant topic that requires further research and could have important ramifications for poverty alleviation and economic growth.

3. Methodology

Global sources such as the World Bank, World Economic Forum, and the United Nations have proven to be useful sources of information on microfinance and economic situations. Other sources include case studies of personal experiences and the experience of organizations when dealing with financial inclusion and microfinance. There are several tools for assessing the impact of microfinance institutions, including the Consultative Group to Assist the Poor poverty assessment tool, United States Agency for International Development assessments of the impact of microenterprise services (AIMS) tools, Qualitative Impact Assessment Protocol (QUIP), and the Decentralized Financial Systems (DFS) monograph, a databank on microfinance by the Central Bank of West Africa. Governmental, non-governmental, charitable, and financial organizations are another important area for study. Useful organizations for the study of microfinance for women in Sub-Saharan Africa include Opportunity International, Women's World Banking, Girl Effect, Kiva, MasterCard Foundation, Whole Foods Foundation, International Network of Alternative Financial Institutions (INAFI) and Africa Microfinance Network (AFMIN).

By following financial streams, the path of capital through microfinance systems can be determined. Following a loan from lender to creditor reveals the mechanisms and processes behind microfinance as well as the outcomes and effects on the borrower, their family, community, and the world. Determining levels of income after participation in a microfinance program, after receiving charity or with no intervention, sheds light on the effects of microfinance. Comparing the structure of various institutions, both charitable and financial, shows what is successful and what falls short. Microfinance ventures with and without various enhanced service programs offered are studied to demonstrate the impact of training classes and support groups. Levels of interaction with markets and financial services after graduating from a microfinance program are explored to assess long-term impact and further engagement with more formal financial institutions. Effects on participants, such as level of income, education, health, nutrition, assets, decision-making, and bargaining power, are studied to understand the impact on individuals, their families, and communities. In addition, impediments to potential success, such as lack of funds, bank costs, limited time, and legal rights are important to think about when considering microfinance. While it is difficult to quantify the impact of microfinance, and measuring success can be problematic, various indicators show what has been lucrative and what needs improvement.

Africa

Africa is the most diverse continent on the planet with 54 countries and a rapidly growing population of over a billion. Despite its abundant natural resources, it is home to financial woes and issues of poverty. Still, the growth seen in Africa indicates that it could contain the next strong, emerging market. As noted by sources such as the World Bank and PricewaterhouseCoopers, Africa could be nearing an economic boom or resurgence, like China thirty years ago (Al Amine and Al Bashir, 2016:3). Liberating China's economy moved a large portion of people from poverty to a previously non-existent middle class and Africa shows the potential for a similar movement.

Despite the diversity within the African continent, it is often researched as a whole. African nations do share some economic, political and cultural ties, but a more specific focus is relevant for studying and implementing microfinance, especially when driven by community reach and outreach goals. From an economic point of view, Africa can be divided into the Arab Maghreb Union, the economic community of West African States, Central African Economic and Monetary Union, the Common Market for Eastern and Southern Africa, and the Southern African Development Community.

Within Sub-Saharan Africa are French speaking countries, commonly known as francophone countries. The francophone African countries can be further divided into the FrancZone, which is connected by use of the CFA Franc currency and bound by a common monetary system. These tend to be poor countries with low GDP. Thanks to their common monetary and economic union, differences in these countries' laws and regulations are limited. The common monetary system provides controlled inflation, low foreign exchange risk, and a stable macroeconomic climate that is conducive to the distribution of microfinance. Many of these countries are also engaging in efforts to deregulate and privatize their economies (Allen, Otchere and Senbet, 2011). Additionally, a lack of infrastructure in some of these countries has actually led to an increase in demand and use for technology such as cell phones to solve problems, and thus is a good environment for the study of mobile payment services.

The French government's development agency, Agence Française de Développement, or AFD sends the majority of its grants and loans to Sub-Saharan Africa. The International Fund for Agricultural Development, or IFAD, is a specialized agency of the United Nations working to end rural poverty in developing countries. Its goal is to empower the poor to increase incomes and food security. IFAD believes that in order to alleviate poverty, people must be empowered to lead their own development. The agency notes that the fastest economic and demographic growth will remain in West and Central

Africa for the coming decade. Through the African Union, leaders have set a goal of ending hunger in Africa by 2025. Cameroon, Ghana, Mauritania, and Sénégal have been noted as making particular progress towards meeting the United Nation's Millennium Development Goals, showing the will and desire for growth in these nations.

Sub-Saharan Africa is a plausible area for the study and implementation of women's economic empowerment and microfinance. Sub-Saharan Africa is a key recipient of development aid from developed countries and the focus of many charities, but microfinance and information on it is relatively scarce in the region. Sub-Saharan Africa is one of the poorest areas in the world, especially given its natural resources, and the number of poor people is expected to rise (Fox, Liebenthal and World Bank, 2006). Still, GDP's in Sub-Saharan Africa are growing and are expected to continue this way (Al Amine and Al Bashir, 2016). It is predicted that Africa's economy will grow at an average annual rate of 7% over the next twenty years, outpacing even China's strong growth (Al Amine and Al Bashir, 2016:121). As enterprises financed by microcredit tend to prosper best in an expanding economy, Africa, with its high growth rates, is a useful place for the study of microfinance (United Nations, 2010).

Currently, financial institutions in Sub-Saharan Africa are lacking and on average African finance systems are seen as worse than other regions' as it is more shallow and informal. The demand for financial services is prevalent as enterprises in Sub-Saharan Africa complain more than any other region in the world about their lack of finance (van Rooyen, C., Stewart and T. de Wet, 2012). One reason conventional banking is not used very frequently in Africa is the avoidance of interest-based transactions by some Muslims

(Al Amine and Al Bashir, 2016). Reconciling Islamic finance systems with microfinance will lead to growth and financial inclusion in Africa and promote well-being overall.

In Africa, microfinance intermediates tend to be wholesalers, or village savings and credit associations, retailer non-bank financial institutions, projects supporting rural microfinance, and commercial banks (Allen, Otchere and Senbet, 2011). Many people in African nations still rely on the informal microfinance systems such as moneylenders and rotating savings and credit associations, which predate the more formal microfinance sector that has developed today.

While 24 OECD (Organization for Economic Co-operation and Development) high-income countries prohibit discrimination in access to credit, South Africa is the only Sub-Saharan African country to have such provisions (*Women, Business, and the Law 2016: Getting to Equal*). This highlights the fundamental changes that need to occur in order for women to be financially included in Africa.

Women play an important role in African societies from food production to caring for family members. Female farmers grow 80% of the household food in Sub-Saharan Africa (The Hunger Project). If women are economically empowered, they will increase their production and consumption, and life in the region will be better for everyone.

4. Theory

Charities

There are millions of charities in the world that do tremendous work to improve lives through improved education, health care, clean water, hunger, women's rights, to name a few. Charities seek to alleviate poverty by providing those basic needs that the poor are deprived of such as food, sanitation, and shelter. Many people and groups do a great deal of good in the world, but the problem with trying to solve these problems is that there is no clear start or end point and the lines of causation are very blurred. Despite good intentions, another problem with charity is that it often consists of outsiders coming into a situation and deciding what is best. Too often the handouts given by non-governmental organizations and government aid programs only serve temporary solutions, and ultimately lead to dependency between donor and recipient increasing global wealth divides even further. Community driven development leads to faster, cheaper, and overall better processes than projects dictated by outsiders (Fox, Liebenthal and World Bank, 2006). The stakeholders themselves, the community members, will best design their own projects and channels of development. People who actually live in their circumstances and who are aware of all the ins and outs would be the best at deciding what is needed. By empowering women and giving them the ability to make their own economic decisions, they can best address the ways to help themselves and their situation the most.

It is said that an ounce of prevention is worth a pound of cure. Many issues faced by poor people that charities try to address could be more easily prevented than remedied. Kristof and WuDunn (2009) share an unfortunate commonality experienced by poor people. They describe coming upon mourning mothers who have just lost a child to malaria. Meanwhile, the child's father is at a bar, where he wastes money. The father could have spent a few dollars on a mosquito net and saved the child's life, but instead spent it on alcohol. If the mother had more control over finances, $5 would have probably been allocated to the mosquito net. Since men currently control most of household spending, the poorest families in the world spend about ten times more on gratification products and services such as alcohol and prostitutes than they do on education for their children (Kristof and WuDunn, 2009:192). When women control spending, as opposed to men doing so, less is spent on instant gratification and more is invested in durable goods, health, and education.

Some development experts believe that certain forms of aid can actually cause harm (The Hunger Project). The distribution of food for example, if implemented incorrectly, can destabilize local prices and harm trade and production, leading to long run issues of food security and agricultural development. Distributary aid does not even address the root cause of the issue, as chronic hunger does not stem from a lack of food, but also a lack of education, skills, health care and decision making power, all stemming from a lack of financial freedom.

Rather than trying to distribute specific goods and services deemed necessary by outsiders to poor people, it would be feasible for the poor to allocate their own demand. It is both economically and socially wise to allow poor people to dictate their own destiny. Experience from Oxfam shows that, when given the chance, the poor use money responsibly and are best at prioritizing investments for themselves (Lawson, 2010:171). Evidence from Africa shows that community-driven development projects lead to faster, cheaper and better public investments (Fox, Liebenthal and World Bank, 2006). The community members are the stakeholders of the projects and thus are the best ones to make the decisions. There are amazing charities in the world that distribute necessities like clean water, food and books, but giving the poor, specifically women, a chance to smooth their own consumption patterns will best satisfy their needs.[3] By following charitable models that offer hands up rather than handouts, specifically for women, poverty will be reduced by the poor themselves in a dignified way. Recognizing the poor themselves as solutions to poverty, rather than victims will elevate the positive intentions of humanitarianism. If given the opportunity, women living in poverty will decide the best way to improve their lives.

Informal Financial Systems

While most poor people are excluded from formal financial institutions, there are informal systems through which forms of financial services are distributed. These include credit unions, co-operatives, associations, and moneylenders. The informal financial services fill a void, but are often not optimal or fully efficient. Moneylenders for example, operate under extremely high interest rates, typically much higher than those in formal institutions. The borrowers are poor people with few ways to receive credit. Many poor people also turn to relatives or friends for money. Loans between family and friends are usually made on a reciprocal basis and do not bear interest.

[3] Consumption smoothing is the process of changing ones consumption behavior more slowly. That is, when incomes are high people tend to save and when they are low people tend to use their savings. Thus the changes in consumption behavior from one year to the next are smaller than they would be in the absence of consumption smoothing.

Another informal financial arrangement is Rotating Savings and Credit Associations, or ROSCAs, formed when a group pulls resources to create a pot that is given to one member each cycle. These groups normally consist of neighbors and friends. Participants follow an inverted U shape; women with little autonomy are unlikely to join, as are women with a lot of autonomy (Armendariz and Morduch, 2005:66). Participates often fall somewhere in the middle, with some autonomy - and looking for more. In this system, where the money is always distributed to someone, accounting and storage issues are not a problem. This system makes all group members better off than they would be saving on their own, except for the last person to receive the pot. Often, that last person would have been just as well off by saving on her own, but they are not made worse off and can gain from the group services and better spot in a future round. The ROSCA model allocates resources, but it fails to accumulate outside funds. The issues of being the last person to receive the pot, as well as ensuring the first receiver continues to contribute, show that ROSCAs, while beneficial to many poor people, are not a perfect financial system. The ROSCA model has also been adapted into Accumulated Savings and Credit Associations, or ASCAs, where some members save while others borrow.

Credit cooperatives and unions are another form of informal finance that serves the underserved. Funds are obtained from people who want to save and distributed to those that want to borrow. Under these systems, savers are not required to borrow, do not have to wait their turn or bid, and face variable loan sizes. This can benefit members, but it also leads to more complexity with management and storing funds. Credit cooperatives and unions are often run democratically, with votes taken on matters such as interest rates and loan size. Surplus earnings, dividends, reinvestment in the institution, lower interest rates, or rebates or partial interest are all potential benefits of credit unions and cooperatives (Ojong, 2014).

People in the developing world rely on a cash economy, using physical assets and informal providers to meet their financial needs. By allowing them to access and use money in a more efficient, cost effective manner through more formal services, economic growth will spur positive influence around the community. When women have assess to financial services, they do not need to store cash under their pillow where it can be stolen, and are not forced to invest in inflexible assets like jewelry, so they can grow and use their savings in a meaningful way.

Women and the Economy

Women are more likely to be poor across the globe than men with women constituting 70% of people living in extreme poverty in developing countries (Binaté Fofana, et al., 2015:1024). Still, only cents on the dollar spent on international development goes towards girls and women, despite the fact that a dollar in a woman's hands is worth ten to twenty in a man's hands, as women tend to invest directly back into the family, while men spend it elsewhere (Interagency Youth Working Group, 2010). The Microloan Foundation of the United Kingdom estimates that assisting 150,000 women has given 600,000 children the opportunity for a better future (Microloan Foundation). Economic empowerment for women offers practical and psychological benefits and is a viable solution to alleviating poverty. Steady increases in living standards and control over money is what satisfies people economically, so empowering women economically will not only improve their position, but also give them more gratification. Countless studies show that women are reliable borrowers who will go on to make sound investments with their loans. Despite the lack of traditional collateral in poor populations, women tend to be good investments as they repay their loans on time. Women's repayment habits mitigate the risk inherent in many microfinance ventures. Costs and risk, some of the major supply-side constraints preventing finance institutions from reaching poor people, can be mitigated by appealing to female clientele. If given the opportunity, women will make investments that cause the greatest improvement in their lives and will lift their families, communities, and the world by alleviating net poverty. The results of economic empowerment for women will be cyclical, as once a woman is successfully served by finance, she will go on to help others creating a positive feedback loop. Empowering women economically, specifically through microfinance initiatives for women in Africa, will be a catalyst for change.

Lower gender equality is related to fewer girls attending school, fewer women working and running businesses and a wider wage gap (*Women, Business and the Law 2016: Getting to Equal*). Equality of opportunity would allow women to make the choices that best serve themselves, their family, and community. Constraints on women's economic decision making lead to detrimental consequences for the economy as a whole.

Relative to male borrowers, women tend to have better repayment rates. Women also tend to be more risk averse and conservative in their investments, easing the fears on behalf of the lender (Armendariz and Morduch, 2005). The hazards associated with taking the money and running are also mitigated by female clients who are less mobile than men. Whereas women tend to have child-oriented preferences, husbands are shown to increase private spending in the case of an income shock (Beck, 2015). Increases to female incomes leads to greater household food and non-food expenditures than men (Armendariz and

Morduch, 2005:180). As demonstrated by women's suffrage movements even in the United States, when women gain the right to vote, public health spending increases and child mortality declines (Kristof and WuDunn, 2009:198). Hygiene and battling childhood infectious diseases are prioritized. Within a year of women gaining the right to vote in the United States, local public health care spending increased by about 35% (*Women, Business and the Law 2016: Getting to Equal*). In many African nations, such as the Ivory Coast women and men grow different crops. When the male grown crops such as coffee and pineapple have a good harvest, spending on alcohol and tobacco is higher (Kristof and WuDunn, 2009:194). On the other hand, when the female grown crops such as bananas and coconuts are prosperous, spending on food, particularly that with high nutritional value such as beef, increases. Women tend to invest in things like nutrition, health care, and shelter, and thus will provide better lives for their children. Through their records of higher repayment rates and household expenditures, women will fulfill both financial and social objectives.

Women around the world spend more time doing unpaid work than men. Additionally, women often have more daily work and thus fewer hours in the day for leisure. Comparing the typical routine of a woman in a developing country with her husband, it is found that women wake up several hours earlier to clean and cook while the husband wakes up just in time to eat breakfast, they both will then head into the field to work before returning home in the afternoon when the wife will clean, wash clothes, tend to the livestock, cook dinner and other housework while the men sleep, bathe, and eat. For a couple of hours after the women go to sleep, the men may stay up conversing with other men in the village (Burra, Deshmukh-Ranadive and Murthy, 2005). If women were more economically empowered, the opportunity cost of their time would further increase, and the distribution of unpaid work would equalize.

While women have many responsibilities in meeting the basic needs of the family, more often than not they are denied the resources, information and freedom of action required. When women are economically empowered, agricultural production increases and childhood malnutrition is reduced. People are healthier, birth rates and child mortality decline, education increases, and there are cyclical benefits to society (The Hunger Project).

The labor out-migration of men from rural areas due to issues of war and HIV has led to a feminization of agriculture, with women in many developing countries taking the reigns on farming and increasing their place in the agricultural sector (Kane, 2011). As HIV related farmer deaths have further increased food shortages in Africa, supporting female farmers in their endeavors will lead to increased production. Further, the reduction in diseases stemming from women's economic empowerment will mitigate the effects of HIV deaths leading to food shortages. Given women's spending patterns, this will have a cyclical effect, as these female agricultural entrepreneurs will put their earnings towards better nutrition and food for their own family.

When women spend on consumption, it tends to go towards productivity with assets that retain value such as housing improvements, refrigerators, and sewing machines (van Rooyen, C., Stewart and T. de Wet, 2012). As women invest in children and family, credit given to females tends to have a more direct increase in household welfare than credit given to males.

With an increase in income from the expansion of financial services, women's status in the household improves. The household decision-making model is based on bargaining power. With financial independence, a woman has the ability to leave the house, which increases her bargaining power. Not reliant on a partner or family, she can realistically live on her own. Even the possible threat of leaving the house can be enough to shift household dynamics. A higher status for women at the household level will penetrate to the community level and improve life in many ways. With increased decision-making by the woman in the household, more resources will be put to things like shelter, nutrition, and education. Further, as women's place in society is elevated, more women will go on to participate in government and leadership roles and the effects will again be multiplied, causing women to gain more rights and demonstrating the cyclical benefits to society.

Considering the classic production function from an economic point of view, since women currently have less access to capital than men, expected returns to capital are higher for women. Further, as financial freedom increases the opportunity cost of a woman's time, it will also effectively limit the number of children she will have. There will be a substitution effect that decreases fertility rates, as time is better-spent gaining potential income rather than raising children. This will benefit populations that face extremely high birth rates and ease the burden of family size. Studies show that female microfinance participants increase their propensity to breastfeed, delay the use of supplementary foods, and increase the likelihood of rehydration in children with diarrhea. There is also evidence of significant increases in the ratios of height-for-age, weight-for-age, and height and arm circumference, an indicator of children's health among female participant's children (Hasan, 2015:216).

When women are economically empowered and able to invest in education and health care, issues of child marriage, teen pregnancy, HIV/AIDS, and other factors that contribute to the inter-generational cycle of poverty will be alleviated. Poverty and gender inequality exacerbate the spread of HIV/AIDS, which can be mitigated and prevented through economic empowerment for women. Economically disenfranchised or dependent females are more likely to be forced into risky sexual situations including less ability to negotiate safe sex with partners, less ability to leave an abusive relationship, and increased likelihood of engaging in the exchange of sex for material goods. In the face of poverty, women use more adverse strategies than men including reducing their own consumption of essential items and in some cases, selling themselves. Research shows that poverty harms females more than males when it comes to unsafe sex and that economic independence is an important factor in the ability to negotiate safe sex (Dworkin and Blankenship, 2009). This all leads to devastating effects for girls, including increase HIV risks. With an increase in opportunities and the value of time for women, many problems including diseases and overwhelming birth rates will decline. If given the opportunity, women and girls will be most effective at lifting themselves and their families out of poverty, leading to a multiplier effect at the community and national levels.

Empowering women economically will have a cyclical effect, leading to legal and political empowerment, as women are better able to reflect their preferences and partake in decision-making processes. With an increase in money, time, power and reduced transaction costs from microfinance, women will participate more in politics, leading to an increase in female leaders and the focus on women's priorities. As women gain more rights and laws are created with equality in mind, the cycle will continue. For example, when women gain the same inheritance rights as men there is an increase in investments in daughters, women become more likely to have a bank account, and households become more likely to have sanitation. The political and legal empowerment that will stem from economic empowerment gives women even more bargaining power and leads to better education, health and financial situations for families. While none of the OECD high-income countries places legal restrictions on female surviving spouse's inheritance, nine economies in Sub-Saharan Africa do not give equal inheritance rights to widows, including Sénégal (*Women, Business and the Law 2016: Getting to Equal*). Marital property laws determine the ownership and management of assets during marriage and in the event it is dissolved. These laws thus have a direct effect on financial inclusion and access to credit for women. Through economic empowerment for women, equality will be improved and poverty will be reduced.

People who are financially excluded do not have access to financial services such as bank accounts and credit. They do not have a secure place to store money, nor are they able to build a credit report. They do not have an easy or safe way to make and receive payments. Women tend to face more financial exclusion than men, despite their reliable track records. On top of this, women face the threat of financial or economic violence, a form of domestic violence involving the misuse, control, withholding, or stealing of a woman's resources (*Women, Business and the Law 2016: Getting to Equal*). This can occur in family or interpersonal relationships and cause women to be financially dependent. Development theory suggests the lack of access to finance creates persistent income inequality and slows growth (Demirgüç-Kunt, et al. 2008). By increasing financial inclusion for women, development will take place across the board.

In spite of financial exclusion, women are known to utilize a variety of savings techniques ranging from the more traditional microfinance institutions and banks to home savings. Home savings are simply made through a box, pillow, bag, and such. It involves smaller amounts of cash hidden, often in case of emergency or for an expected expense. Despite the seeming liquidity and convenience of this method, the risk of theft is high. Women also commonly use community savings groups, or ROSCAs, which use frequent deposits to pay out the group on a rotating schedule. This method can be convenient and low cost but lacks liquidity, confidentiality and faces the risk of loss. Mobile services are coming along as another form of savings for women. This method allows women to save, send and receive money, and gain knowledge for their enterprise. It is convenient and secure but can have a high price. Finally, there are some microfinance institutions and banks that women may use to save. These consist of transactional and savings accounts that are safe, may accrue interest, and allow access to other services. The potential downsides of microfinance savings initiatives are inconvenience, expense, minimum balance requirements, and intimidation.

The gender derived obstacles for microfinance enterprises can be broken down into the individual, household and national level. Financially at the individual level there is a lack of access to financial services. Economically, there are issues of high domestic workloads and undertaking endeavors with low returns while politically, there is a lack of political and legal rights.

Household issues are centered at the unequal control of household income and division of labor. This contributes to the social acceptability of women to be less educated and literate, and an increase in the tendency of violence towards women and smaller roles for them in decision-making at the household level. The issue of women lacking rights to jointly owned assets at the household level, men controlling cash income, and their hedonistic expenditure patterns also contribute to the gender based issues women face at the household level.

At the national level, the gender obstacles are encountered through unequal pay for women and lack of access to markets. Woman also lack the rights to land and household assets not defined through the law and the view of men as the only breadwinners at the community level make change difficult to create (Islam, 2007).

Gender gaps in factors that determine access to financial services such as employment, education and legal restrictions suggest a focus on females for financial inclusion is not misguided. Women in developing countries tend to be self-employed, which increases their need for financial services (Beck, 2015). By understanding the obstacles women face in obtaining financial inclusion at various levels, institutions can craft an appropriate strategy and response to the need for economic empowerment for women.

The World Bank's International Finance Corporation estimates that 70% of small and medium enterprises owned by women in developing countries are not served or underserved by financial institutions, leading to a credit gap of $285 billion (Goldman Sachs). By closing this credit gap, per capita gross domestic product will increase and thus life in developing countries would be improved. The lack of access to capital is seen as one of the biggest obstacles faced by female entrepreneurs. If female entrepreneurs are better equipped to grow their businesses, lives will change at the individual, household and community level. Not only will women be able to support themselves and make sound investments for their families, communities will also benefit from the increased economic activity and availability of goods and services.

The Psychology of Money

There is a significant distinction between giving someone a hand out and giving them a hand up. As the old adage suggests, give a man/woman a fish and you feed him/her for a day; teach a man/woman to fish and you feed him/her for a lifetime. When considering humanitarian ventures, more often than not outsiders offer handouts to those perceived as being in need. The best of intentions can easily be misallocated, as it is the poor themselves who are best at knowing what they need. If rather than receiving handouts, poor people were given a hand up, there would be great social and psychological benefits that are not always possible under traditional charitable giving.

People treat money that they have earned and worked for differently than money that is given to them or they come upon. There are inherent dangers to windfall gains involving a risk in giving money to people who have not anticipated it and are thus less likely to use it in a productive way, as it is not considered part of their regular budget. A common example of this is people frivolously spending their tax returns. Despite the fact that this is their money, and they did indeed work for it, because it feels like a bonus people treat it differently than their standard paycheck. Another example is lottery winners, a third of which end up declaring bankruptcy effectively making them worse off than before winning the lottery. It is estimated that 70% of lottery winners end up broke within seven years (Chan, 2016). It is clear that money given is not money earned.

Some scholars call for cash transfers rather than credit given directly to the poor (van Rooyen, C., Stewart and T. de Wet, 2012). The problem with this is that it is a handout, and does not come with the same psychological benefits as earning money, nor is the money likely to be treated as money earned.

There are psychological benefits to earning money and feeling successful. Confidence and resilience are increased, which can have a multiplier effect in a poverty alleviation strategy. Aside from improving their financial situations, the psychological benefits from earning money will lead to a host of other improvements in the lives of the poor, including increased bargaining power, pride, and confidence.

5. Findings

Originally, the goal of this research was to understand how microfinance helps the poorest people in the world, but studies suggest microfinance works for the poor but not the *poorest* (van Rooyen, C., Stewart and T. de Wet, 2012). When a country is so poor and ravaged by war and violence, microfinance has little realistic chance of helping people. But in places like Sénégal, which is poor but not in such dire condition, microfinance can be an effective tool for poverty alleviation and women's empowerment.

Barriers such as laws and infrastructure can affect the economic situation in a country and shape the response required for effective microfinance initiatives. Findings suggest that there is a difference in the needs and responses required for rural and urban areas when it comes to financial services (Beck, 2015). Payments made in cash are shown to have high costs and risks and that digital payment systems may be a fruitful way to eliminate these problems and improve economic standing. Access to financial services will not only provide relief to poor people, but also increase aggregate productive efficiency.

Microfinance increases income, which should lead to an income effect that increases consumption levels and the demand for goods and services such as health care and education. Community driven mechanisms have proven to be useful for microfinance by addressing issues of risk and fostering strong local environments for development. More female clients in microfinance institutions leads to lower portfolio-at-risk, lower write-offs, and lower credit-loss provisions (D'Espallier, Guérin and Mersland, 2011).

Institutions face criticisms for being too focused on products rather than customers. By focusing more on products that fit the needs of the clients, rather than clients that fit the needs of the product, microfinance institutions will be more successful and better able to serve people. This will also allow microfinance institutions to reach economies of scale while enhancing the trust and satisfaction of their clients.

The Economics and Evolution of Microfinance

The term microcredit was first used to describe loans given to the poor for income generating activities. These were often product-centered loans. Since then, the term microfinance has been used to describe the second wave of customer-centered products. These terms are often used interchangeably, though microfinance is a more overarching term for financial services that includes microcredit, which refers more specifically to loans.

Microfinance, which consists of microcredit, microsavings and microinsurance, is a relatively new financial tool that serves people who lack collateral and are ignored by formal financial institutions. Microfinance initiatives attempt to serve low-income, self-employed or informally employed people without formal ownership titles or identification papers. Through microfinance initiatives, specifically aimed at women, poor people are able to better their situation through economic decision-making on both consumption spending and investment for the future. Microfinance gives women the tools and abilities to spend on assets, housing, nutrition, or whatever best fits their demand. This empowers women, smooths their consumption, and gives them an increased ability to deal with shocks. With an increased ability to manage shocks and a more stable and increased income, women will also make investments for their future in education, health, nutrition, and housing, while also simply increasing savings. Increases in income tend to be spent locally, further stimulating the economy and boosting the cycle of development.

Studies from the individual perspective and microeconomic theories can be combined with information from groups, organizations, and macroeconomic theories to provide a comprehensive understanding of microfinance. Many economic laws and models help explain the functionality of microfinance as a tool for poverty alleviation. The notion of diminishing marginal returns to capital explains that those with relatively less capital can receive higher returns than those that are more abundant in capital. Marginal returns to capital follow a concave production function, with greater marginal returns for the poorer entrepreneur on her next unit of capital than the richer one. This addresses the critique that microfinance institutions interest rates are too high, as it explains the willingness of the poorer entrepreneur to pay more. Diminishing marginal returns to capital suggest that money should efficiently flow between abundant and poor entrepreneurs.

There are various models that microfinance institutions follow, many of them based on more informal forms of banking. The Grameen model, based on Muhammad Yunus' ideas, targets low-income women and selects clients through tests that ensure outreach to the very poor who are engaged in income generating activities. It is based on a system of group peer pressure, through which loans are made to individuals in small groups, often four to seven members that provide the guarantee collectively. Payments are usually made frequently, often weekly, and subsequent loans are dependent on repayment by all group members.

The village banking model refers to credit and savings associations managed by the community that provides access to financial services, builds self-help groups, and helps members accumulate savings. Village banks are usually comprised of thirty to fifty female members that group themselves using self-selection. Finances are provided by the mobilization of all the members' funds and funding from a microfinance institution.

The Solidarity Group Lending model refers to loans made to individual members belonging to groups of four to seven others, who cross-guarantee each other in place of traditional capital. Clients in this model tend to be female market vendors, and the product tends to be a small, short-term working capital loan. A credit union is a member oriented, self-help financial institution organized and comprised of a particular group that saves their money together and makes loans to each other at reasonable interest rates. Members of these groups share some commonality such as having the same employer, attending the same church, labor unions, or living in the same community. Under this model, groups are non-profit and operate democratically, run by the members themselves and an elected committee.

The Community Banking model distributes microfinance through semi-formal and formal institutions that are normally set up with help from non-governmental organizations. The community is treated as one unit and community members are trained in various activities in the community bank. These community banks are sometimes part of a larger community development program that uses finance to promote progress. Rotating Savings and Credit Associations refer to people, usually neighbors or friends, that group up to form a common fund, which is then distributed as a lump sum to one member each cycle. This model based on social interactions is especially popular among women (Addae-Korankye, 2012).

Microfinance reduces vulnerability and increases opportunities, raising living standards for poor women. Evidence shows that financial services lead to improved schooling, health, and empowerment for women. Other improvements are demonstrated through increased asset ownership, electricity and latrine access, literacy, and housing conditions (Lawson, 2010). Growth in microfinance participation, especially for women, is associated with a reduction in poverty levels.

Empowerment can be seen as the transition from a life of limited options to more options and most importantly, freedom to choose among them. Empowerment stems from two key factors, resources, such as assets, capabilities, and networks, and agency, or the ability to act on one's own behalf. Economic tools are an important segment of empowerment programs, providing access to financial services such as microfinance. By implementing effective microfinance strategies for poor women, poverty and its related issues can be ameliorated.

The Many Faces of Microfinance: Credit, Saving and Insurance

It seems that a combination of microcredit, microsavings and microinsurance is the most surefire way to effectively smooth consumption, increase food security and boost people's circumstances (Hasan, 2015:216). A spectrum of financial services including investment or savings, credit, and insurance or risk management can match all the life-cycle needs of the poor including education, emergencies and opportunities for investment.

Microfinance and its relationship with the poor can be viewed through a causal chain. Microcredit or microsavings are distributed to individuals or groups, these people then invest in the future, a business, or spend on assets, housing, nutrition, health and education which leads to employment and increased income. This also leads to an increased capability to deal with shocks and lowers the likelihood of losing income in the case of a shock, furthering the increase to income and leading to empowerment. From here they are able to repay the loan and/or save and the cycle is able to repeat.

The spectrum of financial services for the poor includes credit, deposits or savings, and insurance. Credit for funding in dire circumstances and enterprise growth comes in the form of small, emergency, and consumption loans. Deposits for consumption smoothing, short-term emergency spending and life cycle needs, such as old age include fixed, flexible, and long-term contractual accounts. Insurance serves to mitigate unanticipated risks and can cover the areas of accident, property, crop, weather, health, and life.

The repayment of loans, increases in income and accumulation of assets are all feasible under microfinance models. Failure in a microfinance venture can be seen as an inability to repay a loan or increase income, which can lead to further debt. This is often due to clients' inefficient spending, which can be mitigated through a focus on female clients, or external factors, which can be alleviated through complementary programs such as microinsurance. Most microfinance institutions show repayment rates in the high nineties percent, with delinquency rates often lower than those seen by conventional borrowers. Increasing income is considered the key to reducing poverty, but this depends on what the income is used for. Women, who tend to invest in education, health care, nutrition, and housing, and are reliable borrowers, are the best targets for income generating activities.

Evidence from Sub-Saharan Africa suggests that microcredit and microsavings have positive effects on the poor's savings and increase clients' expenditure and accumulation of assets. For women in particular, there is evidence of an increase in individual expenditure.

A high quality randomized controlled trial showed a significant increase in food and private expenditures for female clients, who also saved more than the controls. Both microcredit and microsavings are also shown to have a generally positive effect on the health, food security, and nutrition of poor clients. They also have a positive impact on clients' housing. Some people suggest that microfinance can lead to children being removed from school to work, but evidence from Sub-Saharan Africa does not suggest an increase in child labor (van Rooyen, C., Stewart and T. de Wet, 2012). Particularly for female clients, microfinance leads to an increase in savings and spending on essentials such as health, nutrition, and education.

Credit

Microcredit usually refers to small loans given to low-income clients for income generating activities. Microcredit can come in the form of traditional cash loans or tangible assets such as goats and other livestock in Sénégal. Microcredit clients show some evidence of increases in health care and insurance expenditure in Sub-Saharan Africa. Female clients in particular invest in children's nutrition and protective behaviors such as the use of a mosquito net. Increased food quality stems from increased food expenditure, which is displayed by female microfinance clients. Microcredit and microsavings for women will positively increase food security and nutritional status. Evidence from credit and savings programs in Tanzania and Rwanda show an increase in meal quality and consumption of meats. Evidence from Sub-Saharan Africa shows a positive effect from microcredit and microsavings on clients' housing. In Rwanda, credit recipients tend to make more improvements to their homes than others (van Rooyen, C., Stewart and T. de

Wet, 2012). Female microfinance participants in Côte d'Ivoire had higher incomes and values of household assets than non-borrowers. This study also found a positive relationship between the probability of obtaining microcredit and women's decision-making power in the household (Binaté Fofana, et al., 2015). A study from a low-income slum in Ghana shows that microfinance leads to an increase in access to and demand for water and sanitation, while also creating business opportunities for both institutions and individual entrepreneurs (Afrane and Adjei-Poku, 2014). Microfinance leads to economic empowerment through increased assets, financial security, and self-worth. Skills in areas like financial literacy, communicating, and negotiating are improved. Social and economic networks are expanded. Through this economic empowerment and subsequent effects, women's place in their homes, communities, and nations improves.

Group Lending

In a typical, formal financial system, credit is obtained when a borrower receives a loan from an institution, provides the institution with collateral to secure the debt, and eventually pays the loan back with interest. In the event that the loan is not repaid, the institution seizes the collateral. As poor people are not able to put up collateral in a traditional sense, microfinance institutions have found other ways to secure the debt. In many cases, the community serves as collateral, as groups are formed and fellow members support an individual's loan.

Group lending refers to a group of people without collateral that forms to obtain a loan from a lender (Armendariz and Morduch, 2005:85). The loans are made to individual group members, but everyone is responsible for supporting them. If an individual in the group faces hardship and is unable to repay the loan, the group members are expected to help them. Further, the group dynamic offers both a support system and peer pressure to perform well. Social sanctions serve as contract enforcers. Economists use the term moral hazard to refer to the way people act when they are protected against risk. There is ex-ante moral hazard, behavior before an occurrence, such as a person who is cautious prior to getting life insurance, but then begins skydiving after getting it. Ex-post moral hazard refers to behavior after an occurrence, such as someone claiming his or her business failed when in reality it was profitable. The ex-post moral hazard of borrowers taking the money and running is mitigated through joint responsibility. Additionally, while banks may have a hard time determining if a client is really unable to pay or not, peers are likely to have a greater understanding of their circumstances. A system of cross reporting also alleviates the dead weight loss that occurs when overly harsh punishments are doled out. For example, if a borrower’s livestock dies unexpectedly and they are not able to repay, the group members can vouch for them and the borrower can avoid overly harsh consequences from the institution. Peer monitoring thus overcomes many enforcement problems faced by banks. If one loan from the group is not repaid, the entire group faces the consequence of not being eligible again. If the loan is successfully repaid, they will likely be offered a larger loan next time around. Through this process, people can build up credit history and increase the size of the loans they can receive. This process is referred to as progressive lending, with larger loans granted to those with a good history. Group lending models rely on the targeting of women, who easily form groups and value social sanctions, and systems with frequent and public repayment to keep repayment rates up.

As people often self sort into these groups, information asymmetries are lightened and the costs of screening, monitoring, and enforcement are lowered. Labor economists refer to this kind of group sorting as assortative matching. Community members and borrowers use their information and knowledge to find the best partners. Most often, the risk-averse borrowers will stick together leaving risky borrowers to form their own groups. This can be good because riskier borrowers are more easily identifiable and held accountable for their risk, leading to lower interest rates for safer borrowers. Some might say it is not necessarily a positive, as risk is then not diversified enough, but there is also some evidence of risky and safe borrowers still forming groups together (Armendariz and Morduch, 2005). Studies found higher repayment rates and a selection effect with more reliable borrowers grouping together. These borrowers were also less likely to miss compulsory savings payments (Beck, 2015). Group lending tends to promote lower interest rates, thereby reaching a greater number of people and leading to a less adverse selection. Group lending can work especially well with women, as social sanctions tend to mean more to them. Through groups and cooperatives, women are also able to receive training, resources, ideas, and adopt new technologies and techniques, while reducing risk. Women, who tend to display greater social cohesion, can be empowered effectively through group lending.

Studies show that strong social connections among group members lead to higher repayment and savings rates (Beck, 2015). Frequent meetings can improve risk sharing and reduce default probability. The group lending process in and of itself can create benefits through social capital and connections. By conducting loan disbursement and repayments through group meetings, transaction costs for loan officers are reduced and repayment incentives are increased through peer pressure. Empowering poor women through community involvement is a key poverty reducer.

Individual Lending

Microfinance initiatives that serve individuals rather than groups tend to come from smaller institutions that serve a more well off clientele than group lenders (Armendariz and Morduch, 2005:120). Individual lending is often characterized by a larger average loan size and lower interest rates and fees as they lend to more accomplished entrepreneurs. Under this system, there is more self-reliance and the incentive to avoid default stems from the threat of future exclusion. Like group lending, individual microcredit schemes utilize progressive lending. Through progressive lending, borrowers are tested with a smaller starting loan, which allows lenders to identify unreliable borrowers before increasing the loan size. Progressive lending increases the opportunity cost of nonpayment for the borrower and leads to fewer defaults, as defaulting would lead to removal from the program. Progressive lending systems further mitigate the concept of strategic default, in which a borrower pockets the money. Collateral can take many non-traditional forms, including tangible assets such as jewelry or livestock. In many cases, it is merely the threat of losing the asset that provides the incentive not to default. Thus, the intrinsic value lies not in the resale potential but the worth to the individual. Anything that would be problematic for the individual to lose could functionally serve as collateral. Individual loans allow a borrower to build credit history, increasing the likelihood of using financial services in the future, and allowing for the sustainable growth of financial inclusion.

Saving

While microcredit is the main focus of most microfinance ventures and research, microsavings can also be a useful tool for poverty alleviation. Sometimes referred to as the forgotten half of microfinance, microsavings are not studied as much as microcredit (van Rooyen, C., Stewart and T. de Wet, 2012). While only some people have the demand and worthiness to receive loans, almost all people want and deserve savings. Even the extreme poor have a demand for saving services. Unlike loans, deposits do not require much vetting and most people should be eligible for a savings account. Unlike microcredit, microsavings do not require an increase in income to pay off interest rates. By safeguarding savings, households are able to manage income shocks, smooth consumption and build up lump sums. Poor people value convenience and flexibility in a savings system and are less concerned by interest rates (Armendariz and Morduch, 2005:166). A system that addresses these needs would likely have high take up rates among the poor. Developing a savings account can provide trust for both the client and the bank. Savings accounts can also increase retention in other finance programs and the financial system. A quality savings service for poor people will lead to poverty reduction, serving as a stepping-stone for future financial ventures or a compliment to other microfinance services.

Insurance

Like microsavings, researchers often ignore microinsurance in favor of microcredit. Still, microinsurance comes with a very similar history to the more traditional microcredit form of microfinance. The poor have been excluded from most insurance systems and when governments try to intervene it often becomes inefficient (Armendariz and Morduch, 2005). Informal systems exist, but with high costs. The obstacles faced in microinsurance include moral hazard, adverse selection, imperfect information, high transaction costs, and contract enforcement issues, much like microcredit. Still, microinsurance systems can be beneficial, especially when combined with microcredit and microsavings efforts for a full financial experience. Insurance products can help mitigate shocks and manage costs due to unforeseen circumstances such as medical emergencies, theft and natural disasters. Insurance in the forms of health, life, property, and even weather to protect against floods, can be extremely useful in protecting against shocks and smoothing the income and consumption of poor people.

Repayment Systems

The nature of repayment systems is a hot topic in the microfinance world. Repayment schedules can be made with daily, weekly, or monthly installments. Some systems utilize public repayments to reduce transaction costs by reaching multiple clients at once and increasing group-level enforcement. This can also decrease intimidation for the clients, as they are not alone. Women, who tend to be less mobile, can benefit from a group approach brought to them. Further, this provides an opportune time to offer education and training and also gain information from the clients. By spending more time in the community, lenders become more familiar with the clients, their surroundings, and needs. In many cases, the opinions of central community members such as bartenders and vendors can provide quality information on a lender's potential. Loans paid back through small installments that begin quickly are praised in the microfinance community as it can offer early signs of potential problems and foster a strong and personal relationship with the client. As exemplified by the case of M-PESA (m meaning mobile, pesa meaning money in Swahili) in Kenya, a mobile financial service that was implemented by Safaricom, the largest mobile phone provider in the nation, trust between client and provider are key. One of the main reasons M-PESA is so popular and successful in reaching Kenyans is that they already had a relationship and trusted Safaricom with their money. Frequent repayment systems also protect the borrower from losing the money to theft or handouts to friends, family, and neighbors. For women in particular, this protects their money from being taken by their husbands.

Considering that many of the potential microfinance beneficiaries work in agriculture, repayment terms that vary with the season are appropriate and beneficial for many entrepreneurs. Frequent repayment schedules with a grace period to reduce stress can be an effective strategy to reduce drop out and increase repayment rates. While the small and frequent payments have many advantages for borrowers and lenders alike, their very nature also increases transaction costs. In order to maximize the effect of microfinance, there must be a repayment system that protects the borrower and lender without exceeding the opportunity cost of the transactions to either.

Financial Technology and Mobile Banking

The most innovative financial technology has not been coming from banks as of late. There are opportunities for app developers and other technology companies to unbundle the banks, especially for places that banks are not able to fully serve. Financial technology, or fintech, can connect borrowers and lenders like Uber does with drivers and passengers. Algorithms can be developed to replace financial advisors. Digital currencies or blockchain technology can be used for convenient, fast, and secure transactions. Financial technology will overcome many of the obstacles faced in bringing banking to the poor. Issues of security, convenience, information and transaction costs will be mitigated through digital services.

While there are two and a half billion people in the world without access to a traditional bank, about one million of them have a mobile phone (Popper, 2015). The absence of a fixed line infrastructure in Africa has led to huge growth in mobile phone use. Africa as a whole is the fastest growing market in the world, with West Africa in particular having about 75% subscriber growth (Allen, Otchere and Senbet, 2011). Mobile banking will address several issues for cash economies including corruption, which makes it so many people do not see chunks of their wages. The fixed costs of ATMs, bank tellers, and transaction costs lose money in the traditional financial systems. The new financial technology can operate on low fees, around 2%, so it becomes economically efficient for both client and banker to serve to poor (Popper, 2015). Savings, money transfers, and loans can all be implemented using a digital platform with extensions such as agricultural and educational services. Digital savings accounts allow women to save as much or as little as they can as often as they want. As women have already proven to be savers, keeping their funds in a safe and accessible place will revolutionize this activity for them. With the poor having more access to mobile phones than bank accounts, technology can be used to expand financial services.

The World Bank has found evidence of positive results from the expansion of payment services. Payment services are easily and effectively implemented through cell phones, which can provide safe and secure transactions and alleviate transportation problems for rural populations. An increase in transactions across geographic distances can also allow microentrepreneurs to expand their businesses effectively. Digital payment services also have a political benefit, as they increase the transparency of payment flows in the country. Evidence from Niger shows the variable cost of mobile payments is 20% lower than manual cash payments and costs to recipients are lowered by 25% (Beck, 2015). Digital payment or savings services are also a sound port of entry into formal financial systems, as they will foster trust between the client and the enterprise. Digital services help people enhance their familiarity with the financial products and increase financial literacy, creating ease in future engagements with financial institutions. As people become more financially literate, this knowledge will lead to increased consumer protection. Digital payment services have shown to be one of the financial services with the most immediate success. By moving poor people away from reliance on a cash economy, the storing, transporting, and processing of money will become easier and less expensive. Payment services allow for easy sending and receiving of payments which allows people to buy goods, pay utility and housing bills, and send money to friends, family, and business partners more efficiently. Some governments are even using mobile systems to collect taxes, pay government employees and distribute social services. Creating an environment in which these transactions are cost and time efficient will boost economic activity and transform the lives of the poor. Digital systems will connect people to national and international payment systems while also allowing more interpersonal exchange and risk sharing.

Conveying messages about finance through innovative channels such as television shows, movies, or radio will improve knowledge and lead to positive behavioral changes.

Studies in South America and the Philippines demonstrate how text messages can serve as effective and cost efficient reminders to help people reach their savings goals (Zottel, 2016). Payment reminders made via text message can be a cheap, effective way to increase timely repayment rates. Technology can be used to promote the effective use of financial services.

Unlike microfinance institutions, which tend to be run by non-governmental organizations and donors, digital finance tends to be driven by commercial banks and mobile network operators. Mobile banking tends to be run through either a bank-led model or one led by mobile network operators, such as M-PESA by Vodaphone in Kenya and Tanzania. Through this, there is the potential for technology enterprises with both corporate and humanitarian goals to develop digital services for the poor. Many major companies such as Verizon have departments devoted to philanthropic goals. Through the creation of services that can help both corporations and the poor, multiple bottom lines and goals will be filled.

Prior to the implementation of M-PESA, a mobile phone based money transfer and microfinancing service, most Kenyans kept their money at home. Many women reported that their husbands were misappropriating their savings and theft was a prevalent issue. Traditional banks were not suitable to many because of minimum deposit requirements and transportation costs. Vodaphone and Safaricom, the largest mobile network provider in Kenya, started the service with the blessing of the Central Bank of Kenya. It has now spread to many other countries and regions and is often hailed as the most successful mobile banking service in the developing world. M-PESA allows users to store, receive, and send money through PIN secured text messages. The use of standard message service text messages means the service works on almost any cell phone. There is a small fee for sending and withdrawing money. While M-PESA is not a typical bank with branches, users can deposit and withdraw funds from various agents including some retail outlets. M-PESA changed the way female users conduct their business. Before M-PESA, women spent time and money traveling by bus to markets to sell their fish for cash. With M-PESA, women are able to send the fish to the market and receive profits remotely. With the increase in savings, women reported making long-term investments including sending their children to better schools and making home improvements to resist seasonal flooding. In 2006, less than 30% of adults in Kenya had access to formal financial services. With the creation of M-PESA, over 65% of Kenyans now have access to financial services. In 2014, M-PESA processed over $20 billion in transactions, more than 40% of Kenya's GDP (Popper, 2015). The case of M-PESA in Kenya and its subsequent spread shows how mobile technology can transform the lives of the poor and the economy as a whole.

When it comes to the adaptation of financial technology, areas with dysfunctional infrastructure can serve to benefit. Underdeveloped financial industries, roads, and an unstable government are some of the reasons M-PESA appealed to citizens. The government and financial institutions in place made it so the risk was more tolerable than it would have been in a developed and tightly regulated market. There was almost no deposit insurance as Safaricom pooled all the deposits into a few accounts, so paying everyone back and determining who gets what in the event of default would have been nearly impossible (Popper, 2015). M-PESA has also led to spin-off initiatives within Kenya, such as M-KOPA (m meaning mobile, kopa meaning borrowed in Swahili), a solar energy company that allows customers to slowly pay off low-cost solar panels through M-PESA.

The solar panels are sold for a small initial down payment with the rest paid out in installments over time through M-PESA. A SIM card inside the solar panels is connected to the cell network and Safaricom. In the event that a user is unable to make a payment, they are not able to get power for that time, but it is easily restored when their financial situation is stabilized. This further revolutionizes life for people living off the electrical grid, relying on dangerous kerosene lamps for light and borrowed power from car batteries to charge cell phones.

Microfinance initiatives can be implemented through crowd funding techniques such as person-to-person lending platforms, as seen in America on sites such as gofundme. Currently, the volume of microfinance funds outweighs that of crowd funding, with $1 billion raised in the United States through crowd funding compared to nearly $48 billion in microfinance (Gueyié, Manos and Yaron, 2013:137). Kiva, which means unity in Swahili, is a non-profit microfinance organization that allows people to lend money to low-income entrepreneurs through the Internet. Kiva includes personal stories and information about what the loan will be used for. Lenders and people with humanitarian aspects are able to connect with the people they are helping, leading to emotional benefits for them. The organization works with a network of field partners from microfinance institutions, to schools and non-profits, to administer the loans on the ground. The field partners post profiles of qualified local entrepreneurs on Kiva.org. Lenders are able to browse and select an entrepreneur they want to fund. The lenders give the money to Kiva through PayPal, which waives the transaction fees. Every dollar from the lender goes to the loan, as donations, grants, and sponsors cover costs. Kiva then aggregates the funds for the loan from individual lenders and transfers it to the field partner, who then distributes the loan to the entrepreneur. Kiva and the lenders do not collect interest on the loans. While Kiva does not charge interest, the field partners tend to impose high interest rates to cover the cost of the risk and oversight of a multitude of small loans. The entrepreneurs pay the loans back with this interest and the field partners transfer the funds back to Kiva. After a loan is repaid, the original Kiva lender can withdraw the principal or re-lend it to another entrepreneur. Loans made through Kiva.org tend to go to women and have a 98.85% repayment rate (Kiva International).

There are many female Sénégalese entrepreneurs being funded through Kiva and the field partner in Sénégal CAURIE (Coopérative Autonome pour le Renforcement des Initiatives Economiques par la Microfinance (Independent Credit Union for the Reinforcement of Economic Initiatives by Microfinance)). CAURIE focuses on women, mostly illiterate or who have a very basic level of reading and writing, and offers both group and individual loans following the village banking method. CAURIE clients have no Kiva defaults, delinquencies, or loans at risk. Kiva lenders do face currency risk, but the cumulative currency loss is 0.5%. One group of women described as having a lot of solidarity, are livestock farmers looking for a loan for one of their members. A forty-five year old mother of nine is looking for a loan to purchase four sheep, vaccines, and animal feed. She plans to fatten and resell the sheep, envisioning saving her profits in the village bank and buying food for her family. Another woman seeking a loan for fattening livestock plans to use the profits to purchase school supplies, clothes, and food for her children. A mother of five children is seeking a loan to increase her sales of local juices, planning to use the profits for increased sanitation, food, and savings. A 77-year-old widow and mother of ten children is looking for a loan to buy bags of groundnuts to resell at the village market.

With her profits, she plans to pay for her children's food and health care and increase her savings at the village bank. Another group of women described as energetic, maintaining good relationships, and active in commerce are seeking a loan for a 49-year-old mother of eight. Her plan is to use the loan to purchase perfumes, coffee, and incense in bulk from a nearby town, and re-sell the items in her neighborhood for affordable prices in her neighborhood. With the profits, she will pay for her children's education and save at the village bank. Not only will she improve life for herself and her family, by bringing goods to the neighborhood at affordable prices, she is also improving life in the community. Most of the participants have children and plan to use their profits to increase their children's wellbeing and savings at the village bank. One 25-year-old that has no dependent children will use her loan to buy and re-sell fabrics and sheets in her village. She says that her profits will enable her to increase her capital and purchasing power (Kiva International). With the help of loans through Kiva, female entrepreneurs plan to execute their business savvy and turn a profit that will go towards their family and their savings, improving life for themselves and their community.

A spin-off of the Kiva model, KivaZip.org, offers loans with no interest directly to entrepreneurs via mobile phone services and PayPal. Zip uses trustees such as local businesses, faith organizations or community leaders, to vouch for borrowers. Currently, this is an experimental platform working in the United States and Kenya with hopes to expand in the future.

Other technological innovations including cloud computing, big data, and alternative credit scoring can change the way financial services are delivered to people, especially poor women, in the future. Digital services will help women overcome physical and emotional barriers to financial services, while achieving lower costs for both client and facilitator.

Islamic Finance

A discussion of finance in the developing world, particularly Africa, would be incomplete without including concepts from Islamic finance. About half of Africa's population is Muslim. The first Islamic bank, first Islamic insurance, and first Sharī'ah compliant exchange traded fund are all of African origin (Al Amine and Al Bashir, 2016). The implementation of Sharī'ah compliant finance is a recent trend and the current market is not reaching its potential. There is a huge opportunity for growth in Islamic finance, especially in the African case, with some researchers referring to it as a "sleeping giant." Despite its relevance, details on Islamic finance are missing from a lot of the research on financial inclusion and microfinance. Even research on microfinance in Muslim majority countries often fails to address Islamic finance[4]. As formal financial use is low among the poor, 72% of the population in the Muslim world also does not use traditional financial services with anywhere from 20-40% citing avoiding interest as a reason (Hasan, 2015:221). Traditional Islamic practices and Sharī'ah law forbid usury, leading to the avoidance of financial services with interest by many Muslims for religious reasons. As microfinance has found a way around traditional collateral, traditional interest can be overcome as well and should not prevent financial service implementation for Muslims.

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[4] Some papers that do address Islamic finance include *Human Security and Philanthropy: Islamic Perspectives and Muslim Majority Country Practices* by Samiul Hassan and *Performance of Microfinance Institutions in Muslim Countries* by Ali Ashraf, Hassan Kabir, and William J. Hippler III.

Through the use of upfront fees, the costs traditionally covered by interest can still be recovered, perhaps more explicitly and efficiently. In the context of humanitarian goals, a required donation upon the completion of a loan cycle could be an innovative way to satisfy financial and social concerns. Economically, a fee or a donation would satisfy the need for interest. By increasing financial inclusion for currently excluded populations like women and Muslims, more people will participate in the economic and thus its growth.

Islamic finance differs from typical finance in a couple of ways. The biggest difference is the prohibition of *ribā,* interest or usury laws. This is actually not an unusual principle as many religions including Christianity, and ancient societies such as Greece, had or have provisions against usury. Excessive risk, *gharar,* and investment and trade in Sharī'ah prohibited sectors such as drugs, alcohol and pork are also prohibited (Al Amine and Al Bashir, 2016:27). The principle of freedom of contract is highly regarded in Islamic finance, so as long as it does not violate Sharī'ah law, parties can make a host of arrangements.

Islamic finance methods are plentiful. Common forms of savings in Islamic finance include investment deposits, which gain a proportion of the return on an investment. There are also demand or current account deposits, which have guaranteed liabilities but do not generate a return. Sukuk, a form of bonds, consist of shares in the ownership of tangible assets such as debt, or Sukuk Murabaha, assets, or Sukuk Al Ijara, projects, or Sukul al Istisna, and investments, or Sukuk al Isthithmar. Resources are allocated through sharing, sale and leasing models. Sharing modes are either full partnership, Musharaka, in which banks and investors jointly manage a project, or passive partnership, Mudaraba, in which there is an investment party and a management party. In both cases, profits are shared. There are several types of sale models. These include a kind of trade credit through which a bank purchases an item on a client's behalf and resells it to them through predetermined installments, Murabaha, and deferred delivery purchase, Bay'salam, which is usually used for farmers who secure funds against future delivery of output. Leasing models consist of Ijara, where the bank buys an item on behalf of the client and then leases it to them (Gelbard, et al., 2014:8). There are also concepts of Bai'muajjal, deferred payment where the final price and payment date, which can be fulfilled through installments or lump sums, Jiala, a service charge or fee, and Qard al Hasana, non-interest bearing loans given to those in need.

Insurance in Islamic finance is based on Ta-awun, mutual assistance, and is similar to conventional cooperative insurance as a group of participants pool funds to insure one another (Al Amine and Al Bashir, 2016). Unlike conventional shareholder insurance, the policyholders share the profits and losses and risk is not transferred to the company. Takāful companies tend to follow one of four operating models, the mudārabah model, wakālah, hybrid model, and the wakāla waqf model. The mudārabah model is based on profit-loss sharing, in which the shareholders share profits and losses with the policyholder. The wakālah model involves an operator acting as an agent of the shareholders in which the shareholders are paid a predetermined proportion of the funds. If a loss is incurred, an interest free-loan is given by the operator, which is repaid by future surpluses. The hybrid model is a mix of these two models in which the operator takes a wakāla fee for managing the insurance and a mudarabah fee for managing investments. The wakāla waqf model replaces the policyholders' fund with a trust called the waqf fund, which is created using part of the capital of the shareholders' fund. This is considered charitable under local law and can tie nicely with humanitarian goals of poverty alleviation. Islamic insurance practices can be combined with microinsurance techniques to provide a useful service to the currently underserved living in Muslim majority countries.

There are great opportunities for growth and expansion of Islamic finance, particularly microfinance, which could flourish in community centered societies and promote inclusion and peace. Islamic microfinance accounts for less than 1% of total microfinance outreach (Hasan, 2015:221). Although debt is not forbidden in Islamic finance, the inclination towards profit and loss sharing systems over debt-based principles could fit well with the microfinance world. Entrepreneurship and risk sharing, which are valued by Islamic finance, are key elements of microfinance. Further, the predilection towards tangible assets when making transactions can bode well with the components of non-traditional collateral in microfinance. As Islamic finance is usually asset-backed or asset-based, finance provided based on the need to purchase a tangible asset, as many microfinance clients do, can further tie microfinance and Islamic finance ventures. While there are sometimes social norms regarding the interaction of men and women in Muslim majority countries, the female community elements of many microfinance models can coincide with this. The elements of community that microfinance's execution and output goals are founded on could flourish in an inherently community oriented society, such as those found in the Islamic world.

Microfinance models based on the Rotating Savings and Credit Association model, which do not involve interest rate payments, may be a useful service to implement in Muslim majority countries. The Bai Salam investment model, which provides advanced payment for goods that do not exist yet, is especially useful for agricultural workers. These workers make up a large portion of the poor in developing countries, who will no longer have to halt production based on a short-term cash shortage. There is also the concept of Qard Hassan mentioned in the Qur'an (57:11). This refers to an interest free loan given for charitable purposes such as education and health care.

Under an Islamic finance system, there could be innovative cost cutting measures such as the utilization of religious centers and mosques as branch locations. Mosques have served as community centers for various purposes since ancient times, so this can be an appropriate place for the community to gather in the spirit of finance. An example of this is Akhuwat in Pakistan, a microfinance organization that grew quickly without facing high operation costs thanks to the use of the mosque, which increased accountability, transparency and awareness (Hasan, 2015:221). Using a mosque as a location for financial practices can foster the community-driven elements while also lowering transaction costs.

The Case for Sénégal

Sénégal is a good country for the implementation of microfinance and economic empowerment because of its economy, technology, social fabric, and relatively favorable experience with colonialism. Sénégal is one of the most stable democracies in all of Africa. It is a poor country, but not so poor or war torn like other African nations that microfinance efforts would be impossible thanks to outside pressures and conflicts. While many other African countries struggle thanks to problems left over from their experience with colonialism, Sénégal was favored by France during the period of colonialism and was set up as administrators of the empire, making it more educated and better off economically. Gaining independence from France in 1960, Sénégal has avoided the peril of many other post-colonial African nations and has seen peaceful leadership and political participation. Still, poverty plagues the nation, with almost half the population living below the poverty line. While Sénégal has a significant population living in poverty, its commitment to peace will allow microfinance initiatives to flourish.

The major ethnic groups in Sénégal, Wolof, Pular, and Serer, have common social customs and languages. These groups have social, political, and religious ties and have not experienced the tribal conflicts causing problems in many African nations (Kane, 2011). Despite ethnic diversity, there is an overall sense of unity in the country that is rare elsewhere, and conducive to a community driven development process. Sénégal has a growing economy and good climate for foreign investment, yet it has a low participation in formal financial institutions. The World Bank identified Sénégal as one of the countries with increasing gender parity in accessing institutions. It has become a priority for Sénégal to increase access and use of financial services (Zottel, 2016). Further, demand for and use of cell phones and other technology is increasing in the country. The social fabric of Sénégalese society is based on notions of giving and sharing. People in Sénégal believe that it is not about how much you have but how much you give. In this non-individualistic society, it is thought that the more you share, the more your world will be plentiful. This concept is referred to as teranga. With this mindset, Sénégal provides good conditions for the cyclical nature of empowerment and microfinance.

Aside from the important economic factors, political factors such as the law and infrastructure are worth considering when studying the success of microfinance and women's economic inclusion in countries like Sénégal. Laws such as those that prevent women from getting IDs in the same way a man can, which may not seem economically related, but affect economic standing as IDs are required by many financial institutions to prevent fraud and theft, are important to consider. Women are less likely to borrow from a financial institution when the process for obtaining a national ID card differs for men and women. Currently in Sénégal, a married woman cannot get an ID the same way a married man can. Without a national identity card, accessing finance or even entering an employment contract becomes problematic, if not impossible. Birth certificates, required for registration for school, health care, and other benefits are not granted to anyone but the father in Sénégal, unless a marriage certificate for the child's parents in presented (*Women, Business and the Law 2016: Getting to Equal*). Successful empowerment will stem from a combination of individual, institutional, and systematic level changes. Microfinance initiatives should strive to reconcile these obstacles faced by the poor, and over time the cyclical nature of economic empowerment will create the various level changes.

Sénégal is a Muslim majority country, with 94% of its population following Islam. With only 6% of the population having a bank account, there is a huge opportunity for growth through microfinance and Islamic banking, or a combination of approaches. There is currently one Islamic bank in Sénégal. In the past few years, the government of Sénégal has made clear that growth of the finance sector is a goal. In 2011, a foreign firm was hired by the ministry of finance in Sénégal to advise on regulations to foster a conducive environment for Islamic banks and Islamic foreign direct investment. Also during this year, the Banque Centrale des États de l'Afrique de l'Ouest, the West African central bank, sent a mission to London and Paris to learn more about steps to advancing Islamic financial systems (Al Amine and Al Bashir, 2016:104). Microfinance initiatives that offer pilot branches adhering to Islamic finance will tap the vast potential of Islamic finance in Sénégal and around the world.

While Sénégal is a Muslim majority country, most are followers of the Sufi sect, which gives less focus on the Hadith and Sharīʼah. Unlike orthodox Muslim, Sufism does not believe in a strict adherence to Sharīʼah connect with God. Instead, they believe in more ritual and meditative properties to maintain their relationship with God. This less orthodox sect of Islam could be a fruitful place to introduce Islamic financial systems. Further, the Islamic social ideology that involves caring for the less fortunate can be combined with the notions of teranga and the social fabric in Sénégal, and a fruitful implementation of microfinance's ability to alleviate poverty will be realized.

The scale of microfinance institutions in Sénégal is $270 million, a third of the total market size of the Economic and Monetary Union (NoVo Foundation). There is a special ministry as part of the Sénégalese government dedicated to promoting microfinance. By developing the financial sector and increasing access to finance, particularly for women, the economy will grow, and inequality and poverty will be reduced. Research and data show that financial development and the facilitation of financial services are key drivers of economic growth and development (Al Amine and Al Bashir, 2016). Through financial services, people are able to save and savings are channeled to investors. This process increases investments, grows the real sector of the economy, ameliorates risk sharing, smooths income and consumption, and leads to overall economic development, and reduced inequality and poverty.

The common Central Bank of the West African Monetary Union countries, the Bank Centrale des Etats de l'Afrique de l'Ouest is headquartered in Dakar, Sénégal. There is a

PARMEC (Projet d'Appui a la Reglementation des Mutuelles d'Epargne et de Credit) Law that regulates microfinance institutions. Incentives of the law include tax exemptions for institutions and members. 85% of microfinance institutions in the region can be considered mutuelles d'epargne et credit. Mutuelles d'epargne et credit are deposit taking institutions that operate using either a four or two-tiered structure. The four-tiered structure is made up of les caisses locales (village banks) and la federation (Apex Federation), recognized as legal entities, and les unions locales (local unions) and les unions regionals (regional unions), not recognized as legal entities by the PARMEC law. As the law does not recognize local and regional unions, they serve to simply provide information and technical support. The two-tiered structure consists of les caisses locales and les unions regionals. Under this structure, the village banks and regional unions are considered legal entities under the PARMEC law. Village banks are considered independent institutions and only the Central Bank with guidance from the Ministry of Finance of the nation is able to reprimand and nullify their legal standing. The PARMEC law also allows the Ministry of Finance to put any registered microfinance institution or affiliated union or federation with poor performance that endangers clients under provisional administration. Sénégal is one of the only countries to seriously use this article of the law, revoking agreements of at least three microfinance institutions exhibiting poor performance.

While the PARMEC law was created with the intention of fostering the microfinance industry and increasing access to credit for the poor, in reality it sometimes limits options for institutions, preventing real penetration of the microfinance industry. Further, the interest cap defined by usury laws in the region do not allow some microfinance institutions to recover costs and thus harms the sustainability of the industry (Lolila-Ramin, 2005). The PARMEC law in the West African Monetary Union demonstrates that this is a region set on properly implementing a microfinance industry, but that there is still work ahead in order to attain it.

The government of Sénégal has made increased access and use of financial services a priority. With donations from the Chinese government in support of female entrepreneurs, the government of Sénégal has implemented a Ministry of Small and Medium Enterprises, Female Entrepreneurship, and Microfinance to develop microfinance programs that either fund poor women through small loans or proven entrepreneurs with larger loans (Kane, 2011). Recipients of these loans receive education in accounting and management and are offered assistance throughout their project. By continuing to develop finance programs, the Sénégalese people will improve their lives and serve as an example for other developing countries. The social and macroeconomic climate in Sénégal shows that it is a promising country for the implementation of microfinance initiatives aimed at women to reduce poverty.

Sénégal Data

Less than one in five adults in Sénégal have an account at a financial institution, including banks, microfinance institutions, and e-money agents (Zottel, 2016). The odds are even worse for women by about nine percentage points and the country is behind other Sub-Saharan African economies in the average inclusion rate. If women are more economically empowered, their decision-making in the household will increase, and the financial inclusion rates will equalize. This will help with the cyclical effects of women being economically included, increasing decision-making power, being further included, and again furthering their power.

Most adults surveyed in Sénégal were familiar with money transfer services, many were familiar with commercial banks, but only a quarter were familiar with microfinance institutions and products (World Bank). More than half of the people in Sénégal cite a lack of sufficient funds as the reason they do not have a formal account. 19% cite a preference for cash, 14% feel there is no need for an account, and 8% find formal accounts too expensive. Non-account holders also consider cost, distance, and documentation requirements impediments to having a formal account. Lack of documentation requirements are especially relevant to young women, as is distance for rural populations.

In Africa, family and friends tend to be the most common source of start-up financing. In Sénégal, they make up about 70% of financial sources while microfinance institutions and non-governmental organizations make up around 10% combined (Aggarwal, Singer and Klapper, 2012). While 59% of people in Sénégal respond yes to having "saved any money," only 6.6% saved at a financial institution, which demonstrates the lack of formal financial services for the Sénégalese (World Bank). 28.6% of women saved using a savings club or person outside the family. While 56.5% borrowed any money, 43.9% of women borrowed from friends and family, with only 3.5% borrowing from a financial institution. Financial service use is low for men, but is worse for women as 8.24% of women have an account at a financial institution and 16% of men do. 0.7% of women have a credit card, while 1.5% of men do. Likewise, 4% of women have a debit card, while 7.8% of men do. Educational attainment rates are 9.6% for women and 18.5% for men. 67.8% of women are self-employed, compared to 51.3% of men. The employment to population ratio is 57.5% for women and 81.4% for men. While men and women both face hardships, women are clearly worse off overall and have the most to gain from increased financial inclusion.

Currently, decision-making in Sénégal falls on the man. Husbands even make personal decisions for women. When it comes to a woman's own health care, 76% of the time the husband makes the decision, 13.6% of the time it is a joint decision and 6.6% of the time it is made by the woman herself. Similarly, 69.1% of the time it is the husband that makes decisions about a woman's visits to her family and relatives. Decisions about household purchases are made by the husband in 62% of cases, the wife in 4%, and 15% are made jointly. The amount of women participating in none of the major decisions, health care, household purchases, and visiting family is 63.7% (World Bank). If women are economically empowered, their decision-making and bargaining power in the household will increase, and spending will be reallocated in such a way that makes everyone better off.

Based on the Global Gender Gap Report put out by the World Economic Forum, Sénégal's gender gap is ranked 72 out of 145 countries (*The Global Gender Gap Report 2015*). Sénégal has an overall score of 0.698 on a scale with zero being perfect inequality and one being perfect equality. For economic participation and opportunity, Sénégal ranks number sixty-five with a score of 0.678. For educational attainment, Sénégal ranks number 133 and for health and survival it ranks 124. Sénégal fares pretty well in the political empowerment category, ranking number twenty-seven overall and number five for women in parliament. Overall, Sénégal has been improving its scores over the years in most of the subindexes of the Global Gender Gap Report and shows promise for closing the gender gap.

Women in Sénégal require an average of six days to start a business, are often business savvy, and make good candidates for loans for income generating activities. With a 46.7% poverty headcount ratio at national poverty lines, the Sénégalese could benefit greatly from microfinance initiatives aimed at reducing poverty for women. The potential is strong for women's empowerment in Sénégal, as evidenced by the increase in seats held by women in parliament over the last decade, from 22% to 42.7% today. As women continue to increase their political participation in the country, legal rights and equality should increase and the process of development will be fueled. Data from Sénégal confirms the belief of many researchers that financial services are more likely to reach urban populations, with 22% of the urban population being financially included versus 13% of the rural population (World Bank). Effective strategies for the deliverance of financial services to women in all areas of the country are needed. While the Sénégalese currently lack formal financial services, according to the World Bank there were 99.947 mobile cellular subscriptions per 100 people, a promising sign that services such as mobile banking have space for implementation.

The informal sector in Sénégal, like many developing countries, is varied and diverse. Women are often at the heart of food production and distribution. Other popular endeavors for women include sewing, tailoring, and the sale of goods, fabric, accessories, perfumes, incense, cereals, and fresh meats, fish, and juices. The fresh juices have been proven by doctors to be healthier than other available drinks, so the advancement of these enterprises will improve overall health. Many female entrepreneurs go on to hire more workers when their businesses grow, so empowering their productivity will lead to positive changes for other members of society. Items are often sold using credit, with the customer paying at the end of the month or throughout with installments. Even restaurant bills tend to be paid weekly or monthly, so microfinance initiatives that utilize payment schedules will not be foreign to the people of Sénégal. Many female entrepreneurs travel to other countries such as The Gambia and Mauritania where lower tariff rates allow them to get cheaper products. Most of the informal workers in Sénégal do not pay taxes and are often not even aware of tax laws. Over 80% of workers in the informal sector, especially women, form associations based on kin or occupation (Kane, 2011). These associations can lead nicely into initiatives that distribute financial services. Microfinance ventures that serve the needs of women working in the informal sector will lead to increased stability and economic growth.

The public and private expenditure on heath by the government of Sénégal is 6.7% of its total expenditure, highlighting the need for women to be able to make their own health care investments. Diets in Sénégal consist of mostly rice mixed with a few ingredients. Most households cannot afford fruits, as only 1% of households in Dakar eat fruits. Malaria continues to threaten people in Sénégal as the disease killing the most people, especially during the rainy season (Kane, 2011). Mosquito nets prevent malaria and are much cheaper than the intravenous drugs required for treatment. If women are economically empowered, they will likely invest in cost effective, preventative items like mosquito nets, reducing the threat of malaria. As women are economically empowered, they will invest in nutrition and their lives and their children's lives will be improved.

Sénégal's economy is reliant on agriculture, with over three quarters of the population working in the fields. The threats of droughts and climate change are a hazard to the harvest and the livelihood for many people. Much of the labor force works in agriculture, so improving their productivity will lead to greater food availability for all. The high fertility rate in Sénégal, which exacerbates poverty and leads to harsh living conditions for families, will be eased when women are economically empowered and invest in contraception. The contraceptive prevalence rate of married women ages fifteen to forty-nine hangs around 12%. Women die from childbirth due to a lack of health care. The risk of death before the age of five is 52% in urban areas and 82% in rural ones (Kane, 2011). This risk is higher among children whose mothers are illiterate, something that could be alleviated with increased female educational attainment. The challenges of maternal and reproductive health, family planning, prenatal care, and infant mortality will all be minimized when women have freedom of choice in spending.

While excluded from formal financial services, women in Sénégal participate in informal savings and credit networks, known locally as tontines. Tontine is derived from France where a banker named Tonti came up with the idea of borrowing money each year with interest payments until the last borrower dies (Kane, 2011). In this model, group members contribute a fixed amount to a common pool at regular intervals. These groups are self-selected and tend to be comprised of friends and relatives. The pool is given to one member at a time until everyone has been served. The already existing notion of combining savings and lending will allow for the easy implementation of microfinance.

The adult literacy rate for females in Sénégal is 29% compared to 51% for males (World Bank). This low literacy rate complicates the attainment of financial services, especially for women. The Sénégalese tend to monitor expenses and plan for old age well, but struggle to shop around, read terms and conditions, and choose the right products for themselves. An increase in financial literacy, which will come from increased economic inclusion and education of girls, will eventually mitigate these problems.

A study on female microfinance participants in Sénégal finds that 81% invest in their household, especially food, health care, education, and rent (Kane, 2011). The study found that the most effective microfinance models in Sénégal come from development organizations and women's cooperatives and groups. The success of these organizations comes from their integrated approach that addresses the needs of borrower and lender in microfinance. The study found that most microfinance institutions do not offer training, workshops, and guidance that have proven to be beneficial by development organizations and cooperatives. By offering supplemental services, or microfinance plus, the reach of microfinance will expand in Sénégal and poverty will be reduced.

Sénégal is a promising country for the implementation of microfinance initiatives and currently contains 21% of all microfinance services in francophone West Africa (Kane, 2011). Women in Sénégal, thanks to male migrations, conjugal instability, polygamy, and divorce are increasingly holding the head of household role traditionally held by men.

Personal Anecdotes

A woman in St. Louis, Sénégal sells fresh, hand-squeezed juices. She has mastered her technique of recipes, cleaning bottles, and keeping bugs away. After learning of a microfinance program from her friends participating in the CAURIE microfinance initiative, she took out a loan. With her loan, she was able to purchase inputs in bulk. She is now better equipped to track her expenses and profits and estimates that her profits have increased. Aside from expanding her business, she is able to provide better nutrition, health care, housing, and education for her children, who will be prepared for a life outside of the poverty cycle. Feeling comfortable with the credit process, she decided to start her own village bank in her neighborhood and serves as the treasurer of the now seventy-five-member group (Whole Planet Foundation). This woman's story shows how savvy female entrepreneurs in Sénégal are able to use microfinance to increase their income, smooth their consumption, provide a better life for themselves and their family, and increase life in their community.

In *Half the Sky,* a book about the weight women carry in the world, the frustration of a World Bank employee was explained. She says that everywhere they would go, they would tell people to use better hygiene (Kristof and WuDunn, 2009:180). People would respond that they are not stupid, if they had the money, they would. She further explains her frustration that the money existed to help them, but for some reason it was not being distributed properly or effectively. This anecdote demonstrates the fact that despite the abundant capital in the world, it is not allocated in the effective ways that could lift poor people.

Group Experiences

Some non-profits such as Accion International and Women's World Banking work to support microfinance institutions in their endeavors through the sharing of information, strategies, and research. Women's World Banking is a major non-profit organization that provides support, technical assistance and information to a global network of independent microfinance institutions and banks offering credit and financial services to low-income women in the developing world. Their goal is to increase the economic assets, participation and power of low-income women and thus their households through access to financial services, knowledge and markets. Reaching twenty-four million microentrepreneurs, it is the largest global network of microfinance institutions and banks, and one of the only to focus explicitly on women. Part of their work involves research to help develop products and innovative ways for institutions to do business with low-income women. Part of their research assessed how pressure to generate profits affects poverty reduction. They found that mission drift could reduce the proportion of women served by institutions and lead to increases in loan size. Their research also shows that women are inherent savers. Despite having a low and unpredictable income, women are able to save around 15% of their earnings. Girls as young as 10 years old accumulate, manage, and wish for a safe place to save their money. Their experience has found that savings accounts help financial institutions reach new clients and pave the way for other services, such as loans and insurance (Women's World Banking). The work of Women's World Banking demonstrates that despite being underserved, women make good financial clients who reinvest in their families and communities.

The foundations of major corporations spur some microfinance initiatives, and are sometimes able to achieve double bottom lines of profit and social change. Plan Canada and the MasterCard Foundation share the belief that microfinance is a powerful too that enables people to lift themselves and their community out of poverty. Specifically focusing on young women, they have given $4.1 million to support savings and loans associations in Niger, Sierra Leone, and Sénégal. Their belief is that the focus on girls and young women will alleviate inequalities and allow economic potential to flourish. A 21-year-old participate explains her experience accessing financial services and training, which allowed her to start a business selling hair products, "I have learnt to save money, use my money wisely. I don't ask for the help of anyone to solve my problems. Thanks to this project, I have got to believe in myself and count on my own strengths" (The MasterCard Foundation, 2010).

Goldman Sachs' 10,000 Women program is an initiative that strives for economic growth through female entrepreneurs by providing business and management education, mentoring and networking, and access to capital. The initiative was based on the growing research in support of the economic opportunities of investing in women and female entrepreneurs potential for growth. 90% of the graduates of their program go on to mentor other women in the community. 58% of the graduates created new jobs averaging over 3.5 employees and 69% increased revenue (Goldman Sachs). Through this program, women demonstrate that they are not only capable entrepreneurs, but that they also have the tendency to spread the positive effects among their fellow community members. The experience of Goldman Sachs and the 10,000 Women initiative shows the positive cyclical effect that will take place when women are economically empowered.

Many microfinance ventures are run by non-profits with the goals of humanitarianism. The Hunger Project is a global non-profit with missions in Africa, South Asia and Latin America. They use an "epicenter strategy" in Africa, organizing groups of ten to fifteen villages that construct community centers, partner with local government and community organizations, improve agriculture, food-processing and security, literacy, health care, income generation, and establish and manage microfinance programs. The group focuses on women and promoting self-reliance with the knowledge that when women are empowered, their families will be healthier, children's schooling will increase, as will incomes, and lives will be improved overall (The Hunger Project).

Sénégal was their first country of intervention in Africa and the Hunger Project-Sénégal is empowering women to end their own poverty and thus hunger. Through their epicenter strategy, the community is mobilized as they construct the facility. The cluster of villages allows for an increased capacity to deal with local governments than one village would have on its own. The larger community also increases their ability to collect and utilize resources. All epicenters in Sénégal have women's support groups and many have a Women's Empowerment Program. Several epicenters in Sénégal have access to clean water, which improves quality of life and reduces the distance women must go to get water, giving them more time (The Hunger Project).

Most of the epicenters have boreholes and there are an average of sixteen wells per epicenter. There are about six latrines per epicenter and several waste management facilities. The sanitary waste disposal system is an efficient way to reduce disease. The microfinance program fills what is considered a critical missing link for the end of hunger in Africa, the economic empowerment of women. The Hunger Project's Microfinance Program is operated by women, locally owned and fully integrated. Having women fill committee seats and sit on the board of directors gives women a strong voice in the community. Credit, savings and training are all part of the program. Women use the microloans to start small businesses and improve farming techniques leading to an increase in crop yields. Household income is successfully increased. Their profits are used on the next generation to feed them, get them good health care, and send them to school.

Over a period of around eight years, the epicenter addresses the issues underlying poverty and moves towards sustainable self-reliance, eventually funding itself as the Hunger Project moves out. The microfinance programs gain the means for self-reliance and receive official government certification to conduct business as a rural bank. The Sanar epicenter, which serves sixteen villages and around ten thousand people in the Saint-Louis département of Sénégal, is transitioning towards self-reliance. The full inclusion of female farmers and entrepreneurs is key to achieving the goals of ending hunger and poverty in Africa. The Hunger Project is making communities more reliant and benefiting societies through the support and empowerment of women (The Hunger Project).

There are several cases of women's lives being improved by microcredit through the Hunger Project in Sub-Saharan Africa. One woman grew her farming business from ten acres of land to sixty and was able to hire other people, creating jobs. She was happy to send her children to school and provide a better life for them. Another woman described her experience after receiving several loans, increasing in size. Starting as a yams saleswoman in a market, she strengthened her business with an initial loan of 10,000 CFA ($16.49). Today, she is able to secure a loan of 70,000 CFA ($115.41) and is now a yam wholesaler. She cites many positive changes in her life thanks to microcredit including affording her children's school fees, supplies, medical expenses, and clothing, the purchase of a bicycle that has increased her mobility, the purchase of a goat which she will breed for increased profits, improved fertilizer that is increasing her crop yields, and the extension of her hangar to increase storage capacity for her yams. Her income has dramatically improved and she has invested it in creating a better life for herself and her children (The Hunger Project).

Another client used her initial loan to purchase five sheep. After her successful repayment, she qualified for a second, larger loan that allowed her to continue increasing her income generating activities through the cultivation of crops. Despite her husband's absence for many months, this 28-year-old woman was able to support herself and her three children. She qualified for another larger loan and continued following market demand to increase her income generating activities, now cultivating grain. At this point, she developed a personal savings that not only was spent on school supplies, clothing, and shoes for her children, but then allowed her to continue increasing income through the purchase of more sheep and a heifer. With crops and livestock she is able to turn a profit and provide for her families consumption. She plans to further diversify her crops and family's diet (The Hunger Project).

A 37-year-old fresh vegetable trader in Sénégal relied on local tradesmen, who monopolized the sector thanks to the deteriorated roads, for supplies. After receiving her third microloan of 150,000 CFA ($318), she felt empowered and arranged for supplies for herself and five other women directly from Potou, a large gardening site eighty kilometers away. They reduced their overhead expenses and were no longer reliant on middlemen. In total, she received 700,000 CFA ($1,482) in loans and is thrilled with the effects on her business and personal life. She can now meet her family's basic needs, paying for her children's medical care, clothing, shoes, and school supplies. She has increased her savings, is more active in the community, and has enriched her professional reputation and social life. Her goals for the future include continuing to diversify her trade by adding fresh fish and expanding her business to serve more villages (The Hunger Project).

A group of women from the Diokoul Epicenter in Sénégal used a two-year loan and combined resources to overcome an insufficient water supply and subsequent crop shortage. Thanks to the efforts of these women with access to microcredit, water and crops are now flush throughout their community (The Hunger Project). The experiences of these women show that they are reliable borrowers and entrepreneurs who invest in goods that improve life for their families and in their communities.

Girl Effect is a non-profit organization created by the Nike Foundation in collaboration with others including the NoVo Foundation and United Nations Foundation working to end poverty with the belief that girls and women are the key. It launched with a film at the World Economic Forum in Davos that demonstrated the important role of girls in development. In partnership with Facebook's Free Basics initiative, Girl Effect Mobile was created to connect girls to each other and with information and content. The idea behind the platform is to increase girls' knowledge and ability to share experiences, thus building strength and self-confidence (Girl Effect).

They also launched the Girl Effect Accelerator, in collaboration with the Unreasonable Group from Colorado, which provides business support to female entrepreneurs whose businesses improve the lives of other girls and women. One female entrepreneur sells clean birth kits, or pouches with sterilized items such as scalpels and soap. The kits prevent infection after childbirth and cost less than $3. With support from the Girl Effect Accelerator, the business was expanded from India to West Africa (Tavakoli-Far, 2015). By supporting female business owners in their endeavors that benefit other women, the Girl Effect Accelerator works to end poverty through the entrepreneurial empowerment of women.

FINCA International, sometimes called the "World Bank for the poor" is considered one of the most influential microfinance organizations in the world. FINCA's mission is the alleviation of poverty through people raising their standard of living. Part of their mission is the extension of business loans to poor women, through which they have a 97% repayment rate. These clients go on to create two jobs each on average. More goods and services are also provided to the local community. Through the creation of jobs and increases in goods and services, local markets are stronger. The majority of clients say the services helped them achieve their business goals and profits are increasing. FINCA provides financial services including microloans and savings, and utilizes innovative technology like phones, in addition to lifestyle enhancing products such as solar lanterns. FINCA partnered with Visa International to develop electronic payment products for the developing world. This partnership allows FINCA to expand outreach by minimizing transaction costs and time.

These lower transaction costs benefit FINCA clients, as do increased security, reduced probability of theft, and an expansion of services. After consultation with local religious leaders, and confirmation through a fatwa at Al-Azhar University in Cairo, Egypt, one of the most respected Islamic higher learning institutions, FINCA is now offering a line of sharia-compliant microfinance products. FINCA offers murabaha loans based on agreements through which they make explicit the costs they have incurred and sell it to a client with an explicit markup on the original cost (FINCA International). The experience of these organizations shows that economic inclusion for women and Muslims is not only possible, but also lucrative for all of society.

Problems Faced

While microfinance ventures have proven to be beneficial for the poor in many ways, it is not a perfect system as is. The economic concept of agency theory explains an imbalance between resources and ability. Institutions have capital, but are lacking information and enforcement mechanisms. Informal moneylenders, on the other hand, have quality information and enforcement but lack resources. The poor themselves also face the fundamental disconnect between ability and lack of resources. Some people question the nature of high repayment rates. Criticism include too many resources being put into monitoring and enforcement and pressure on borrowers to be risk averse, which could impede greater profits. Addressing imbalances and improving practice will make microfinance ventures even more effective at poverty reduction in the future.

While most economists generally consider competition a good thing, some findings suggest that competition in the microfinance industry creates problems. Dynamic incentives, or the incentive to repay loans based on future loan prospects, are mitigated under strong competition where borrowers have many options. Competition in the microfinance industry can also lead to double dipping, where borrowers obtain multiple loans from different lenders. Some use funds from one institution to pay another. This leads to an unfortunate cycle of over-indebtedness and harms the terms of loans for all borrowers. Additionally, the lack of competition and fragmentation in Kenya is one of the reasons M-PESA was launched so successfully. At the same time, competition can lower transaction costs, interest rates and lessen penalties faced by borrowers.

Cooperation among microfinance institutions is offered as a potential solution to problems faced by competition. If lenders share information and histories, competition related problems will be mitigated and the industry will further flourish. The creation of credit bureaus to keep track of the work is also a potential solution. As the microfinance industry grows and learns from experience, it will become an even more useful tool for humanitarians and finance experts.

Surprises

While the goal of many charities, NGOs and microfinance organizations is to reach the poorest of the poor, it seems that microfinance best fits the needs of the poor, not the extreme poor. The research also shows that one form of microfinance alone: credit, savings or insurance, may not be enough and instead a more comprehensive financial experience is the better solution (Beck, 2015; Hasan, 2015). Microfinance is not a panacea, but comprehensive microfinance packages tend to promote well-being and progress in developing countries, with promise for sustainable future growth.

Many microfinance initiatives operate under the use of the double bottom lines of profit and social change. Research shows that there is an apparent trade-off between poverty reduction and profitability as determined through average loan size, aggregate reduction in the poverty gap, and the financial performance, or return on equity (Armendariz and Morduch, 2005:263). Mission drift can occur, as profit-seeking behavior overshadows the major goal of poverty reduction by serving the needs of the poor. Reduction in poverty and profitability tend to display an inverse relationship, but by determining their intersection it is possible to achieve the double bottom line of profit and poverty reduction.

It appears that microfinance can provide both financial and social returns, but when the intention shifts towards a focus on profit, social impact is lessened and it some cases may cause more harm than good. If intentions remain on philanthropic goals, real positive changes are possible across the board, and it is even possible to generate a return. Thus, it seems that microfinance institutions that have goals of social change have a good chance of generating that and profitable returns, but the mission is tainted when profits are overly prioritized.

6. Conclusions

The ultimate goal of this paper is to prove that through financial inclusion and economic empowerment for women, lives, economies, and the world will be improved. Economic empowerment for women will be a catalyst for change in many areas often focused on by charities including education, health, and clean water. Microfinance is a tool for people with humanitarian aspirations that want to make positive contributions to the world. Financial services relieve poverty on a micro level, and can be implemented on a macro scale such as through corporations. By way of economic inclusion, increased participation in the economy will lead to more growth, productivity, security and affluence for everyone. Empowering women economically is the best way to achieve these goals of economic development and the improvement of lives, communities, and the world.

Through economic empowerment, women will develop and enhance organizations that further their interests and raze their obstacles, creating a better world for themselves and the future. Women will strengthen their bargaining power in the marketplace and increase their say in decisions and policies, all leading to a better life for themselves and path for their children.

While microfinance is not perfect nor the end all solution to poverty, it has proven to be a useful tool when implemented correctly. Microfinance allows for increases in income, production, and job creation, and improves the lives of family members when the scope is focused on women, making the next generation better off. It is important to recognize the value of time when considering the great deal of change that must occur. While microfinance has been criticized for not doing enough, even small improvements like meal quality or housing improvements will make a big change in people's lives over time. While poverty cannot be alleviated overnight, small changes from home improvements to an extra year of school will lead to long-run changes. As women are economically empowered and invest more in their children, their children's lives will improve and this pattern can continue for generations providing stable, sustainable growth. Financial illiteracy is currently one factor impeding financial inclusion for women, but as mothers increase their relationship with finance it will rub off on their daughters. As women increase their daughter's education, health care, and safety, they will have more opportunities and there will be a positive cyclical effect. The next generation will be educated mothers and effective employees and influential citizens. This cycle will continue and poverty will be diminished over time. As the poverty of parents is likely to be transferred to children, financial services will halt the intergenerational transmission of poverty. Poverty alleviation requires overcoming issues over generations, systematically and sustainably, which financial services provide. The long run is an important concept in economics and it often takes many years to adequately determine effects. It takes time in order for markets to stabilize through normal mechanisms. The concept behind microfinance is that financial services can allow poor people to increase their incomes, invest their money, and escape poverty. It seems that the first two can be accomplished, with the latter coming in due time. Financial services will provide stable, sustainable growth, and change the lives of the poor.

As the main engine of economic growth is through the accumulation of knowledge and skills, the increased investment by female microfinance clients on education for themselves and their children will lead to greater economic growth. Evidence suggests there is an increase in household and enterprise income, assets, and consumption through economic empowerment for women. A positive influence on social welfare indicators such as education, and spending on health care and nutrition also comes from financial liberation for women. Lack of financial literacy has been a barrier to financial inclusion, particularly on the demand side for women. Over time as more women do become engaged with financial systems, this knowledge be passed to their friends, family and daughters, and the barrier of financial literacy will be mitigated. As women smooth their consumption, expenditure through financial services, education, nutrition, and health care for children increase, and there are positive long-term effects on productivity and consumption, and eventually, poverty.

A combination of microcredit, microsavings, and microinsurance will lead to an increase in savings, expenditure, and the accumulation of assets for female clients. The use of dynamic incentives, or the promise of repeat and larger loans, is an effective discipline tool that reduces risk for the lender. Through a comprehensive microfinance strategy aimed at women that encompasses several financial services alongside supplemental programs, poverty can be sustainably reduced over time. Women will benefit from participating in microfinance through increased empowerment, decision-making power, financial skills, income and assets. Through women's increase in income, consumption, health, nutrition, education, empowerment and reduced inequality, vulnerability and susceptibility to shocks, social and economic development will change the lives of people around the world.

Supplemental services alongside microfinance such as education, training, and assistance will increase the positive effects of microfinance ventures. These non-financial services also improve the relationship between institutions and clients as it strengthens trust and confidence. Often referred to as microfinance plus, non-financial services such as health services, peer support, and literacy and business training will improve the results of microfinance initiatives through improvements to repayment rates, income generation, and increased savings.

Effective financial services for women meet some of the characteristics fitting women's needs. Loans for both trade, services, manufacturing, and collateral requirements that can be overcome through the use of groups, character references, and other assets such as jewelry are important for the success of microfinance institutions geared toward women. Loans available in small amounts that are easily and quickly processed are conducive to the lending process between institutions and female clients. Repayment schedules that align with business cycles and the potential to increase subsequent loan size also foster productive financial services for women. Removing literacy requirements and the need of a spouse or male relative's signature is another significant aspect of providing microfinance to poor women. Loan officers that are able to assist women with tasks such as completing forms can also promote success. A safe and convenient location along with hours of operation that work around the domestic and business demands on schedules are also important for the success of bringing microfinance to poor women.

Institutions need to find a way to overcome the obstacle of documentation requirements in order to effectively reach the underserved. Proof of identity is required to prevent fraud and identity theft, however women face more obstacles than men in obtaining national identity cards. Identification documents, which are not easily obtainable for many women in developing countries, can be replaced through other verification systems. Microfinance institutions should also find ways to reduce transaction costs in order to better serve rural communities, which are often in desperate need for financial services and currently ignored. To effectively serve poor clients, institutions should disclose rates and fees clearly, prohibit unfair practices, and provide efficient recourse mechanisms and financial education.

As adults in Sub-Saharan Africa are three times more likely to use mobile money as people in Europe and the Americas, developing financial technology for the region will be fruitful and lucrative (Popper, 2015). Privacy protecting protocols are important for the successful implementation of microfinance in developing countries where relatives can take advantage of female clients. Joint accounts among family members can leave women with limited control over asset management, which is why account ownership and not just access is so important. Digital financial services offer promises of increased privacy, and reduced costs and risks.

The implementation of a comprehensive credit registry and bureau will fortify the success of microfinance initiatives for both the client and the facilitator. Credit registries and bureaus that record all loans, not just those above a certain amount, and those that record from microfinance institutions and other non-bank institutions such as retailers and utilities will improve access to information on creditworthiness, allow clients to leverage their good repayment histories, and include those typically shunned from traditional banking relationships. Through the Sustainable Development Goals, world leaders aim to end hunger and poverty by 2030. In order for these goals to be attainable, research and technology must be innovated and shared amongst institutions to create the best policies and approaches to end inequality and empower the poor. By creating forums to share information and experiences, microfinance institutions will build strong models that reach the highest level of performance.

Proper management and a trained and motivated staff are crucial to implementing successful ventures. Banks tend to reward employees that make a lot of large loans, but rewarding them based on their stimulation of poverty reduction or minimization of costs may be a more fruitful approach. For this line of work, low powered incentives such as promotions can be more useful than high-powered incentives such as salaries.

Focusing on the needs of the clients, rather than the institutional needs will lead to products that best serve the client and lead to the most change. Demand responsive products will increase the reach and success of microfinance ventures. Client-centered, as opposed to product centered microfinance institutions, will best serve poor women. By promoting development and market behavior, microfinance initiatives will unite growth and poverty agendas. Economic empowerment for women will lead to sustainable poverty reduction, economic growth, and social progress that will benefit the entire world.

Moving Forward

Through the study of various microfinance institutions, it is clear that intentions vary. Mission drift, which occurs when demand to meet profitable requirements diverts attention away from serving the needs of the poor, has been a concern in the industry. The first institutions to offer microfinance tended to be non-profit local non-governmental organizations driven by development models. As time went on, a commercial, for-profit industry came to the fore. Some microfinance institutions formalized and commercialized into banks, known as up scaling the microfinance institutions. On the other hand, some commercial financial institutions are downscaling to serve the needs of the previously underserved. Some institutions are even starting to follow a triple bottom line of profit, social, and environmental impact. Going forward, it is likely that we will see microfinance institutions follow either a commercial or social path. Commercially focused institutions will focus more on profitability and serve a more well off clientele, while socially focused institutions will serve poor clients and focus on change.

Whole Foods funds poverty alleviation in countries where the company sources products through its Whole Planet Foundation. Sénégal, a source of hibiscus juice for Whole Foods, gets assistance from the Whole Planet Foundation in conjunction with CAURIE Microfinance. Implications on the bottom lines of endeavors of this sort, where both parties seek to gain from increased production, are worth further research.

The notion of impact investments, or investments made with the intention of generating both a financial and social or environmental return, are gaining speed in the financial community. These investments target microenterprises whose work can improve the lives of others, such as water purification enterprises. This is another form of allocating capital to relieve poverty and deserves further investigation, particularly the allocation for women.

Research going forward can move away from the effects of microfinance to focus more on the process between programs, donors and clients, to understand the best implementation and strategies for future initiatives. Another area for study is the regulation of microfinance institutions. Commercial banks tend to be regulated by the central bank but the lower-end financial institutions may need a different supervisory method. Regulations including registration with the government, publications and reports, and subjugation to supervision are areas to explore. As the possibility of peace and stability depends on the growth of jobs, the study of microfinance initiatives for female refugees and those living in war torn areas is another promising angle for future research.

Development and economic theories support the notion that the poor themselves, particularly women who are reliable borrowers and make sound investments, know best how to reduce their poverty and will do so if given the chance through financial inclusion and economic empowerment. Economic growth based on handouts leads to dependency and has proven to be inefficient and problematic. Microfinance ventures have proven to be a sustainable mechanism for reducing poverty. By mobilizing people, corporations, and resources, poor women will be empowered and humanitarian goals will be achieved. Going forward, innovations in technology and the incorporation of various methods such as Islamic finance, will allow the microfinance sector to grow, promoting development and economic growth around the world. If given the opportunity, women are most effective at lifting themselves out of poverty, improving life for their families and having a cyclical effect on communities, nations, and the world.

Bibliography

Addae-Korankye, Alex. "Microfinance: A Tool for Poverty Reduction in Developing Countries." *Journal of Business and Retail Management Research* 7.1 (2012): 138 – 149. *ProQuest.* Web. 09 Dec. 2015.

Afrane, Samuel K., and Bernard Adjei-Poku. "Expanding the Frontiers of Microfinance in the Service of the Poor: Experiment with Water and Sanitation." *International Journal of Academic Research in Business and Social Sciences* 4.6 (2014): 133. *LexisNexis.* Web. 09 Dec. 2015.

Aggarwal, Shilpa, Dorothe Singer, and Leora Klapper. *Financing Businesses in Africa: The Role of Microfinance.* The World Bank, Washington, D.C, 2012. Print.

Al Amine, Muhammad and Muhammad Al Bashir. *Islamic Finance and Africa's Economic Resurgence: Promoting Diverse and Localized Investment.* Springer International Publishing, Cham, 2016.

Allen, Franklin, Isaac Otchere, and Lemma W. Senbet. "African Financial Systems: A Review." *Review of Development Finance* 1.2 (2011): 79-113. *Business Insights: Global.* Web. 09 Dec. 2015.

Armendariz, Beatriz, and Jonathan Morduch. The Economics of Microfinance. Cambridge, Mass: MIT Press, 2005. Print.

Ashta, Arvind, and Ndeye Salimata Fall. "Institutional Analysis to Understand the Growth of Microfinance Institutions in West African Economic and Monetary Union." *Corporate Governance: The International Journal of Business in Society* 12.4 (2012): 441-459. *Emerald Insight.* Web. 09 Dec. 2015.

Beck, Thorsten. 2015. *Microfinance: A Critical Literature Survey*. IEG working paper; 2015/No.4. Washington, D.C.: World Bank Group.

Binaté Fofana, Namizata, et al. "How Microfinance Empowers Women in Côte d'Ivoire." *Review of Economics of the Household* 13.4 (2015): 1023-1041. *Springer.* Web. 09 Dec. 2015.

Burra, Neera, Joy Deshmukh-Ranadive, and Ranjani K. Murthy. *Micro-Credit, Poverty and Empowerment: Linking the Triad.* Sage Publications, Thousand Oaks, Calif; London; New Delhi, 2005.

Chan, Melissa. "Powerball: How Winning the Lottery Makes You Miserable." *Time*. Time, 12 Jan. 2016. Web. 4 Mar. 2017.

Demirgüç-Kunt, Aslı, et al. *Finance For All?: Policies and Pitfalls in Expanding Access*, World Bank, Washington, D.C, 2008.

D'Espallier, Bert, Isabelle Guérin, and Roy Mersland. "Women and Repayment in Microfinance: A Global Analysis." *World Development* 39.5 (2011): 758-772. *ScienceDirect.* Web. 09 Dec. 2015.

Dworkin, Shari L., and Kim Blankenship. "Microfinance and HIV/AIDS Prevention: Assessing its Promise and Limitations." *AIDS and Behavior* 13.3 (2009): 462-469. *Springer.* Web. 09 Dec. 2015.

FINCA International. "Microfinance." *Finca.org*. FINCA International, n.d. Web. 4 Mar. 2017.

Fofana, Namizata B., et al. "Effects of HIV/AIDS and Microfinance of Women on Income, Medical Expenditures and Schooling in Côte d'Ivoire: Effects of HIV/AIDS and Microfinance of Women." *African Development Review* 26.2 (2014): 322-332. *Wiley Online Library.* Web. 09 Dec. 2015.

Fox, M. L., Robert Liebenthal, and World Bank. *Attacking Africa's Poverty: Experience from the Ground*, World Bank, Washington, D.C, 2006.

Gelbard, E., et al. *Islamic Finance in Sub-Saharan Africa: Status and Prospects*, vol. Working Paper No. 14/149., International Monetary Fund, Washington, D.C, 2014.

Girl Effect. "Girl Effect." *Girleffect.org*. Girl Effect, n.d. Web. 4 Mar. 2017.

Goldman Sachs. "10,000 Women | An Initiative to Provide Business & Management Education to Female Entrepreneurs in Emerging Markets." *Goldman Sachs*. Goldman Sachs, n.d. Web. 27 Mar. 2017.

Gueyié, Jean-Pierre, Ronny Manos, and Jacob Yaron. *Microfinance in Developing Countries: Issues, Policies and Performance Evaluation*, Palgrave Macmillan, New York, NY; Houndmills, Basingstoke, Hampshire;, 2013.

Hasan, Samiul. *Human Security and Philanthropy: Islamic Perspectives and Muslim Majority Country Practices*, Springer, New York, 2015.

Hoel, Arne. "Investing in Women Is Vital to Ending Poverty, Boosting Needed Growth." *World Bank*. World Bank, 14 July 2015. Web. 09 Dec. 2015.

Honohan, Patrick, and Thorsten Beck. *Making Finance Work for Africa*, World Bank, Washington, D.C, 2007.

Hossain, Farhad, Christopher Rees, and Tonya Knight Millar. *Microcredit and International Development: Contexts, Achievements and Challenges*. London: Routledge, 2012. Print.

Interagency Youth Working Group. "Protecting and Empowering Adolescent Girls: Evidence for the Global Health Initiative." (n.d.): n. pag. *Usaid.gov*. United States Agency for International Development, 3 June 2010. Web. 4 Mar. 2017.

Islam, Tazul. *Microcredit and Poverty Alleviation.* Ashgate, Burlington, VT; Aldershot, England;, 2007.

Jolis, Alan, and Muhammad Yunus. *Banker to the Poor: Micro-lending and the Battle Against World Poverty*. N.p.: PublicAffairs, 2008. Print.

Kane, Safietou. *Women and Development in Senegal: Microcredit and Household Well being*, ProQuest Dissertations Publishing, 2011.

Khandker, Shahidur R., Syed Badruddoza, and Gayatri B. Koolwal. *How Does Competition Affect the Performance of MFIs?: Evidence from Bangladesh*, The World Bank, Washington, D.C, 2013.

Kiva International. "Women." *Kiva.org*. Kiva Microfunds, n.d. Web. 4 Mar. 2017.

Klapper, Leora. "How Digital Financial Services Boost Women's Economic Opportunities." *Let's Talk Development*. The World Bank, 24 Nov. 2015. Web. 09 Dec. 2015.

Kristof, Nicholas D., and Sheryl WuDunn. *Half the Sky: Turning Oppression into Opportunity for Women Worldwide*, Alfred A. Knopf, New York, 2009.

Lawson, David. *What Works for the Poorest?: Poverty Reduction Programmes for the World's Extreme Poor*, Practical Action Pub, Rugby, Warwickshire, 2010.

Lolila-Ramin, Zahia. "Regulation and Supervision of MFIs in the West African Monetary Union: How the PARMEC Law Impedes Access to Finance for SMEs and the Poor." *Essays on Regulation and Supervision* (2005): n. pag. *IRIS Center*. IRIS Center, Apr. 2005. Web. 4 Mar. 2017.

Microcredit Summit Campaign. "The State of the Campaign Report 2015." *The State of the Campaign Report*. Microcredit Summit Campaign, 31 Jan. 2016. Web. 4 Mar. 2017.

Microloan Foundation. "The Impact of Our Work." *Microloanfoundation.org*. The Microloan Foundation of the United Kingdom, n.d. Web. 4 Mar. 2017.

Ngwu, Franklin N. "Promoting Formal Financial Inclusion in Africa: An Institutional Re-Examination of the Policies with a Case Study of Nigeria." *Journal of Banking Regulation* 16.4 (2015): 306-325. *ProQuest.* Web. 09 Dec. 2015.

NoVo Foundation. "About Us." *Novofoundation.org*. NoVo Foundation, n.d. Web. 4 Mar. 2017.

Ojong, Nathanael. "Credit Unions as Conduits for Microfinance Delivery in Cameroon: Credit Unions as Conduits for Microfinance Delivery." *Annals of Public and Cooperative Economics* 85.2 (2014): 287-304. *Wiley Online Library.* Web. 09 Dec. 2015.

"Plan Canada and The MasterCard Foundation Expand Youth Microfinance Project in West Africa." *The MasterCard Foundation*. The MasterCard Foundation, 22 Mar. 2010. Web. 26 Jan. 2017.

Popper, Ben. "Bill Gates on The Verge: Can Mobile Banking Revolutionize the Lives of the Poor?" *The Verge*. Vox Media, 04 Feb. 2015. Web. 5 Jan. 2017.

Premchander, Smita. *Multiple Meanings of Money: How Women See Microfinance*, SAGE Publications, New Delhi, 2009.

Salia, Paul J. "The Effect of Microcredit on the Household Welfare (Empirical Evidences from Women Micro-Entrepreneurs in Tanzania)." *International Journal of Academic Research in Business and Social Sciences* 4.5 (2014): 259. Web. 09 Dec. 2015.

Sanyal, Paromita. "Group-Based Microcredit & Emergent Inequality in Social Capital: Why Socio-Religious Composition Matters." *Qualitative Sociology* 38.2 (2015): 103-37. *Springer.* Web. 09 Dec. 2015.

Stein, Peer, Oya Ardic, and Martin Hommes. "Closing the Credit Gap for Formal and Informal Micro, Small, and Medium Enterprises." *Ifc.org*. World Bank, 2013. Web. 3 Dec. 2016.

Tavakoli-Far, Nastaran. "The Entrepreneurs Helping Girls in the Developing World." *BBC News*. BBC, 29 Jan. 2015. Web. 4 Mar. 2017.

"The Global Gender Gap Report 2015." *Global Gender Gap Report 2015*. World Economic Forum, 19 Nov. 2015. Web. 10 Oct. 2016.

The Hunger Project. "Empowering Women and Men to End Their Own Hunger." *Thp.org*. The Hunger Project, n.d. Web. 4 Mar. 2017.

United Nations. Department of Economic and Social Affairs. *Rethinking Poverty: Report on the World Social Situation 2010.* United Nations, Dept. of Economic and Social Affairs, New York, 2010.

Urkato, Samuel. "Microfinance Impact on Poor Rural Women Household-Level Employment: Bargaining Models Approach (the DESCI Case: Tigrai State, Northern Ethiopia)." *American Journal of Entrepreneurship* 5.2 (2012): 8. *ProQuest.* Web. 09 Dec. 2015.

van Rooyen, C., R. Stewart, and T. de Wet. "The Impact of Microfinance in Sub-Saharan Africa: A Systematic Review of the Evidence." *World Development* 40.11 (2012): 2249-62. Web. 09 Dec. 2015.

Viswanathan, K. U. "The Informal Sector and Microfinance Institutions in West Africa." *Indian Journal of Agricultural Economics* 57.1 (2002): 126. *ProQuest.* Web. 09 Dec. 2015.

Whole Planet Foundation. "Khady." *Wholeplanetfoundation.org*. Whole Planet Foundation, n.d. Web. 4 Mar. 2017.

Women, Business and the Law 2016: Getting to Equal. Washington, D.C: The World Bank, 2015. Web. 09 Dec. 2015.

Women's World Banking. "Women's World Banking." *Womensworldbanking.org*. Women's World Banking, n.d. Web. 4 Mar. 2017.

World Bank Development Research Group, Better Than Cash Alliance, Bill & Melinda Gates Foundation, and Women's World Banking. *Digital Financial Solutions To Advance Women's Economic Participation*. Rep. Better Than Cash, 16 Nov. 2015. Web. 9 Dec. 2015.

World Bank. "GDP Growth (annual %)." *Data.worldbank.org*. World Bank, n.d. Web. 4 Mar. 2017.

World Bank. *Gender Statistics Database*. World Bank, n.d. Web. 7 Mar. 2017.

World Bank. *Poverty and Equity Database*. World Bank, n.d. Web. 7 Mar. 2017.

World Health Organization. "10 Facts on Malaria." *Who.int*. World Health Organization, Dec. 2016. Web. 4 Mar. 2017.

Zottel, Siegfried. "Improving the Odds of Being Formally Financially Included in Senegal."*Nasikiliza*. The World Bank, 19 Oct. 2016. Web. 4 Mar. 2017.