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Analyzing the effectiveness of microfinance as a means of poverty alleviation in selected areas of Nairobi county; a case study of Kenya Women Microfinance Bank

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DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the Research Paper contains no material previously published or written by another person except where due reference is made in the Research Paper itself.

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Contents

1: INTRODUCTION	4
1.1 BACKGROUND TO THE STUDY	4
1.2 PROBLEM STATEMENT	7
1.3 RESEARCH OBJECTIVES	7
1.4 RESEARCH QUESTIONS	7
1.5 SIGNIFICANCE OF THE STUDY	7
1.6 LIMITATIONS OF THE STUDY	8
2: LITERATURE REVIEW	9
2.1 THEORETICAL FRAMEWORK	9
2.2 EMPIRICAL FRAMEWORK	10
2.3 CONCEPTUAL FRAMEWORK	13
2.4 KENYA WOMEN MICROFINANCE BANK (KWFT)	15
3. RESEARCH METHODOLOGY	16
3.1. RESEARCH DESIGN	16
3.2 NATURE OF THE STUDY	16
4: RESULTS AND DISCUSSION	18
4.1 THE FOSTER-GREER-THORBECKE INDICES	18
4.2 EXTENT TO WHICH WOMEN HAVE BENEFITED FROM MICROFINANCE	19
5. CONCLUSIONS AND RECOMMENDATIONS	20
REFERENCES	21

1: INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Microfinance is the provision of financial services to micro entrepreneurs and small businesses, which lack access to banking and other related services due to the high transaction cost involved in serving this client category (Otiende, 2015). Microcredit refers to a small loan made by a bank or other financial institution (Quaye, 2014) and is intrinsically tied to microfinance.

Microfinance institutions can be non-governmental institutions, savings and loans cooperatives, credit unions, government banks, commercial banks or non-bank financial organizations (Dahir, 2015). Otiende et al. (2015) further postulated that financial services are the economic services provided by the finance industry, which encompasses a broad range of organizations that manage money such as the credit unions, banks, credit card companies, insurance companies, consumer finance companies, stock brokerages, investment funds and some government sponsored entities. A critical aim of microfinance is the empowerment of women in order to achieve gender equality. Another researcher defined microfinance as; a provision of financial services, such as savings, credit, deposits, insurance and repayment services to those who are deprived of access to conventional financial services because they are poor and cannot offer collateral (Samer, 2015). Samer et al. (2015) gave further insight into the concept of microfinance by stating that the underlying logic is that by extending financial services, low income people will be able to participate in the economic market and exploit entrepreneurial opportunities through startups of new business, extending current business or introducing new activities. Both research studies agree that microfinance is centered around the provision of financial services to those that are too poor to access traditional financial services, however offered different reasons as to why they could not access the traditional financial services. For the purpose of this research undertaking, we shall consider microfinance as the provision of financial services to micro and small entrepreneurs/enterprises, which cannot access traditional financial services.

Poverty alleviation is used to define the act of individuals and households coming out of poverty. There are several ways in which poverty can be alleviated. Education and human capital development is a key method. Investment in education increases the skill level and productivity of households, and also enhances the wage level as well as the overall welfare of the population (Njong, 2010). Moreover, family planning can lead to poverty alleviation; research results from Bangladesh are demonstrating that, in addition to contributing to better health, family planning is an essential component of economic development and poverty alleviation (Graff, 2010). Another means of poverty alleviation is tourism, with poverty at the heart of the tourism initiatives, hence pro-poor tourism. There are widely held beliefs, in both government and academia, that tourism is an effective driver of development, both economic and in terms of human development, and is seen as a means of achieving development in tourist destination areas (Linder, 2015). Sport can also be utilized as a tool for poverty alleviation, to some extent. The forum, 'Tackling global poverty with the Olympic spirit' concluded that sport does have the ability to affect a positive

change and lead to development, however sport should be a tool within a broader toolkit, and is not in itself a means of overcoming poverty (Devendra, 2012). Cognizant that through microfinance, education and human capital development can be achieved, since households begin generating steady, growing forms of income (through microfinance initiatives) and can therefore afford to educate their family members. Furthermore, members of microfinance initiatives can also be educated on the benefits of family planning, utilization of eco-friendly energy sources and means to boost enterprise productivity through trainings offered by microfinance institutions. Moreover, areas of natural beauty can be utilized for economic purposes by the local community through microfinance initiatives, hence pro-poor tourism can develop in such areas as a result of the microfinance process. Due to microfinance, other means of poverty alleviation can take root within a community, therefore this research will focus primarily on microfinance as a means of poverty alleviation. Women empowerment refers to measures designed to increase the level of autonomy and self-determination amongst the female gender, in order to enable them to represent their interests in a responsible and self determined way, acting on their own authority. Cornwall (2016) postulated that the aim of women empowerment is for the female gender to overcome their sense of powerlessness and lack of influence, and to recognize and use their resources. Providing women and girls with equal access to financial inclusion, education, health care, decent work, and representation in political and economic decision-making processes will fuel sustainable economies and benefit societies and humanity at large (Cornwall, 2016). Due to this, this research will aim to ascertain the extent to which the microfinance sector in Kenya is aiding in women empowerment through financial inclusion.

The viable market for financial products among the vast low income earners, considered the unbanked population of the world, has been realized by banks and entrepreneurs in the developing world (Quaye, 2014). Quaye et al. (2014) further reiterate that, microfinance has been successful in the provision of financial services to low income earners; as well as micro, small and medium enterprises, to aid them in gaining financial freedom. In Kenya, the Microfinance Act, 2006 serves as the legal framework within which microfinance institutions in Kenya can operate (CBK, 2016). Kenya's microfinance industry grew substantially after this landmark act, the country has five deposit taking microfinance units, assessed by the Economist Intelligence Unit (EIU) as one of the best in Africa (Otiende, 2015). The 2006 baseline report, and the subsequent surveys of 2009 and 2013, show that Kenya has made significant progress in fostering financial inclusion (CBK, 2016). A driving force of financial inclusion in Kenya is the advent of mobile banking, which has allowed a large portion of the population some form of access to financial services. The country's leading position in mobile banking is a key factor towards financial inclusion in Kenya (Andrianaivo, 2011). Furthermore, financial inclusion varies across regions of Kenya with Nairobi having the highest rate of financial inclusion (CBK, 2016). The survey also discovered that microfinance institutions have capitalized on the high rates of mobile banking to foster greater financial inclusion, especially among women whose rate of access to some form of financial services leapt from 2009 to 2013. Rotation savings and credit

associations (referred to as *chamas*) have also lead to further financial inclusion among the unbanked population in Kenya. Certain microfinance institutions predominately aim to empower women, which has seen a reduction in the dependency of women on informal financial systems and improvement in their social standing.

The microfinance industry globally is facing challenges as funds dry up, delinquency rates rise and skeptics begin to question its efficacy in driving poverty reduction and development (Otiende, 2015). Otiende et al. (2015) went on to identify constraints inhibiting microfinance institutions in Kenya from serving their clients, namely; governance and regulatory deficiencies, high exposure to economic and social political shocks, intermediation deficiency, legal issues (limiting the number of creditworthy borrowers) and the structural fragility of most microfinance institutions. Other factors hindering the success of the microfinance sector are the cost of outreach, lack of scalability, ineffective utilization of self help groups, geographic factors, diverse business models, high transaction costs, KYC (know your customer) challenges and limited budgets (Khanvilkar, 2016). Another writer observed that microfinance loans are used to fund consumption, arguing that in South Africa consumption makes up 94% of microfinance use, resulting in borrowers wrapping themselves in debt since they are not using the funds for income generating activities (Hickel, The Guardian, 2015). Especially in markets where there are many microfinance institutions, such as Bangladesh, growth in microcredit provision may lead to micro debt dependencies as where participants have the possibility of borrowing from several sources, hence end up over indebted and trapped in poverty (Shahidur Khandker, 2014). Khandker and Samad (2014) also acknowledged the danger of women acting as collection agents for their husbands and sons, who spend the money, and leave the women saddled with debt. This means clients of microfinance institutions end up poorer than they were before taking the micro loans. The purpose of this research will be to ascertain the effectiveness of the Kenyan microfinance sector in delivering a sustainable means to alleviate poverty in Kenya and assess the extent to which women benefit from microfinance initiatives, using the Kenya Women Microfinance Bank (KWFT) as a case study. Case study research allows for the exploration and understanding of complex issues, with the role of case study research becoming more prominent for issues with regard to education, sociology, and community based problems such as unemployment, empowerment, poverty, illiteracy, etc. (Zainal, 2007), therefore to analyze poverty alleviation and women empowerment, this study will employ a case study research method. The KWFT boasts a high microcredit disbursement, which at approximately 335,000 clients makes it the second largest institution with 25.4% of market share based on clientele, while it holds 12.06% of the market share based on gross loan portfolio (CBK, 2016). Furthermore KWFT Bank primarily focuses on women empowerment, and has been selected due to the fact that it has the highest number of female clientele in the microfinance industry in Kenya. The Kawangware slum located in Dagorreti North sub-county has been identified as the target area for this research, due to the high instances of poverty, and coupled with the presence of KWFT Bank, it can produce results indicative of the effectiveness of microfinance in Nairobi. The poverty line is currently set at \$1.25 per day based on the revised purchasing power parity

considered by the World Bank (Birdsall, 2008). Those living at/below that level of income shall be considered poor for the purpose of the study. Moreover, micro and small entrepreneurs shall be considered for the purpose of this research study.

1.2 PROBLEM STATEMENT

Poverty is a major concern for most developing nations. Economic development and poverty reduction have been elusive throughout sub-Saharan Africa since independence (Younger, 2004), with Kenya being no exception. Moreover, entrepreneurship and financial inclusion among women in Kenya is lower than among men (CBK,2016). Gender equality is the fifth Sustainable Development Goal (SDG) and its pursuit is key to the economic development of Kenya. Microfinance is built around the concept of alleviating poverty, the creation of wealth for the poor and women empowerment. Empirical evidence, however, indicates that this may not always be the case and in some instances, microfinance initiatives leave their intended beneficiaries worse off than they were before undertaking the microfinance initiative. Theoretically, microfinance should lead to sustainable economic growth and a reduction in the levels of poverty, with clients of MFIs able to generate a sustainable source of income for themselves. However, in practice, microfinance programs are impeded by issues such as delinquency, high rates of interest charged, lack of demand for the beneficiaries' goods/services, poor governance of the MFIs, among other inhibiting factors. In these instances microfinance fails to deliver on its promise. By undertaking this study, I intend to analyze the extent to which microfinance leads to poverty alleviation and women empowerment in Nairobi, using Dagoretti North sub-county of Nairobi as the target area and KWFT Bank as a case study.

1.3 RESEARCH OBJECTIVES

- To analyze whether microfinance leads to poverty alleviation in Dagoretti North sub-county of Nairobi.
- Ascertain the extent to which women have benefited from microfinance activities in Dagoretti North sub-county of Nairobi.

1.4 RESEARCH QUESTIONS

- What impact has microfinance had on household income levels ?
- To what extent have microfinance initiatives been inclusive of women ?

1.5 SIGNIFICANCE OF THE STUDY

The aim of this study is to ascertain the effectiveness and success of microfinance in Kenya. Cognizant of the fact that the successful implementation of the microfinance philosophy will lead to the achievement of the Sustainable Development Goals i.e. eradication of extreme poverty, women empowerment and gender equality, among other goals . The SDGs are targets

set to ensure the prosperity of mankind across the globe. The aim of this research paper is to analyze the microfinance industry in Dagorreti North sub-county of Nairobi and the Kibera division of Nairobi, using KWFT Bank as a case study, and ascertain the extent to which microfinance has impacted on poverty alleviation and women empowerment. In doing so, the study will contribute to the economic development of Kenya, eradication of poverty and contribute towards gender equality. The findings may be used by the regulators, microfinance institutions, learning institutions and policy makers.

1.6 LIMITATIONS OF THE STUDY

Due to data collection and time constraints, a single microfinance institution will be selected for the purpose of the study. Furthermore, the research study will be undertaken in the Kawangware slum of Dagorreti North sub-county.



2: LITERATURE REVIEW

2.1 THEORETICAL FRAMEWORK

Oluwaseun (2014) defined poverty as the lack of access to basic human needs such as clean water, nutrition, health care, education, clothing and shelter, among other basic needs, due to an inability to afford them. The study went on to cite two main causes for poverty, i.e. low economic growth and market imperfections. Low economic growth is characterized by unemployment, underemployment and underdevelopment, which directly affects incomes of households, while market imperfections refer to those factors which, largely through institutional distortions, lead to unequal opportunities or access to productive assets, such as ignorance, culture and inequitable income distribution (Oluwaseun, 2014). In sub-Saharan Africa, a large number of dependents on relatively few economically productive members in a household, aggravates the poverty spiral. This translates to low income relative to a household's needs. More than one out of five people, 1.4 billion people, are regarded as living in poverty, with the proportion in sub-Saharan Africa even higher than the world's average (Otiende, 2015). Microfinance has been widely recognized as a tool for poverty alleviation and socioeconomic well being (Samer, 2015). Otiende et al. (2015) highlighted that there are three features that distinguish microfinance from formal financial products, which are; smallness of loans advanced or savings collected, the absence of asset based collateral and the simplicity of operations. The concept of microfinance tends to empower would-be entrepreneurs to take up a trade for a living, allowing them to start earning and thus provide for their family with the income stability they create. Samer et al. (2015) went on to cite works by Ledgerwood (1999) and Robinson (2001), acknowledging that microfinance helps diversify household income, smoothen out household expenditure and enables households to cope with economic shocks and fluctuations. Health related emergencies, wedding expenses, livestock deaths, crop failure, farming equipment breakdown, among other unexpected financial shocks are capable of plunging households into abject poverty (Karlan, 2016), hence microfinance services can be used to protect vulnerable households from such crippling setbacks. A United Nations working paper found that, when utilized properly, microfinance can offer an effective means to address material poverty, the physical deprivation of goods/services and facilitate a means of generating income, thereby allowing households to obtain these goods/services, which can potentially lead to material benefits extending out to the local community. The paper went on to postulate that non-material poverty i.e. psychological factors which prevent individuals from harnessing their potential, can also be reduced, if not eradicated, through microfinance. Otiende et al. (2015) identified performance criterion, based on the foundational principles of microfinance, which should form the basis of performance evaluation for microfinance institutions. These are; financial sustainability, building financially stable institutions is the only way to reach significant scale and impact far beyond what donor agencies can fund; outreach, this is an important aspect of

microfinance since the aim of microfinance is to reach the largest number of poor people who lack access to traditional financial services; and impact, impact assessments in line with the desired outcome needs to be conducted to ascertain the effectiveness of the microfinance initiatives. They identified that impact assessments can be carried out through assessing volume of transactions, their movement over time and quality of the services offered. They added that impact can be assessed based on the observed quality of the client's life. This is based on movements of income, health, education, quality of food consumed and the empowerment of women. Otiende et al. (2015) concurred that donor and government subsidies are especially important in the early stages of a microfinance institution, but stated that continuous subsidy can lead to a state of dependency and complacency from the microfinance institution, and perhaps eventual donor fatigue.

Mohammad Yunus, founder of the Grameen Bank is widely considered as the pioneer of modern microfinance. Mainsah et al. (2004) conducted an in depth research into the Grameen Bank's origin, performance, culture and impact on expanding the microfinance agenda. The Grameen Bank model is the first concerted effort to make financing accessible to the world's poorest (Mainsah, 2004), therefore it is crucial to gain insight into the model that commercialized microfinance. They concluded that the bank has lifted millions of people out of poverty (mostly women and their families), and as a direct result of microcredit, one million people every year are uplifted from poverty in Bangladesh alone (Mainsah, 2004). The Grameen Bank model is based around the idea that the poorest of society deserve to have access to financial services, which lead to the identification of methods in which the need for collateral could be circumvented. Coupled with incentives to save, rates of default were observed to be very low. The Grameen Bank model, which included a pension scheme, an insurance program and several satellite companies (providing products needed by the bank's clients) has been mimicked and replicated worldwide over the past decades, with KWFT Bank doing so to some extent. The success of such microfinance institutions should consider both financial strength, as well as social impact (Mainsah, 2004).

2.2 EMPIRICAL FRAMEWORK

The research study conducted by Quaye et al. (2014) affirmed the fact SMEs (small and medium enterprises) play a strong role in the economic development of nations and the general well being of its citizenry. They went to argue that such enterprises and their respective entrepreneurs are usually denied access to the traditional financial sector due to high levels of perceived risk, lack of collateral, among a myriad of other reasons. They found out that that most SMEs are undercapitalized. They then acknowledged the importance of microfinance institutions and the sector at large, which bridges this financing gap. Quaye et al. (2014) identified that microfinance institutions have had a positive impact on SMEs in the area of savings mobilization and provision of credit, they however, raised the issue that due to the risk mitigation tools and requirements instituted by microfinance institutions, a portion of SMEs are denied access to financing facilities. Their research study concluded that, despite the fact that microfinance

institutions exist to alleviate poverty and empower women, their success is hindered by several risk mitigation tools such as the need for collateral, high interest rates and fixed repayment schedules. They carried out their research in Ghana and recommended that SMEs in Ghana should form an SME member bank which would pool savings of the SMEs together in order to form a financial pool from which the financing need for these SMEs could be met. This SME bank would be a relationship based bank, and therefore circumvent the need for collateral, offer flexible repayments and charge affordable rates of interest, therefore SMEs would be able to attain greater financial inclusion by turning away from the microfinance sector in Ghana.

Karlan et al. (2016) carried out a rigorous study into the value of financial services in the lives of the poor. They noticed that key market failures, a repeating theme of this research, such as imperfect information, behavioral biases, high transaction costs, unenforceable property rights and a lack of competition, create wedges that inhibit the delivery of financial services. They concluded that the traditional one size fits all form of microcredit fails to deliver on historic claims, backing up their statement with evidence from seven randomized evaluations from around the world, where by only a single subset of entrepreneurs showed significant gains from expanded access to microcredit. Saving accounts for low-income households show strong a potential to improve client welfare (Karlan, 2016). They identified a number of studies which clearly demonstrated the positive impacts saving accounts have on the poor, however acknowledging that these savings were offset by a reduction in informal savings. Most microfinance institutions offer a form of insurance products for their clientele, and the study carried out by Karlan et al. (2016) shows that impact evidence of insurance is small but potentially promising, arguing that current business models fail to deliver on a large scale, as uptake is quite low. They went on to identify market failures that lead to poorly designed products from microfinance institutions. These are; information asymmetries, both on the supply side as well as the demand side; the assumption that humans behave rationally; high transaction costs, acknowledging that digital platforms significantly reduced transaction cost; incomplete property rights, which often disadvantage women; imperfect competition, citing the need to study the effect of market power in financial services.

Bangladesh's experience with microfinance has been phenomenal, setting the pace for the rest of the developing world. Bangladesh had 30 million registered members of microfinance institutions in 2008, and in June 2011 there were 576 registered microfinance institutions, which indicates substantial growth from the few that existed in the 1990s (Shahidur Khandker, 2014). Khandker et al. (2014) carried out a study using data from a long panel survey spanning over 20 years to establish whether the effect of short term loans are more beneficial than the effect of long term loans, if changing effects of market conditions contribute to market saturation and village level diseconomies (diminishing returns to credit), and whether market saturation and multiple program membership are causing adverse effects on households' welfare. The surveys were carried out in 1991/2, 1998/9 and 2010/11, with 1,509 households common during all surveys; due to attrition and household split-off the total number of households varied in each individual study. They noted that multiple program membership increased manifold across the

years, as in 1991/2 the phenomenon hardly existed, but in 2010/11 61% of Grameen Bank members were members of other programs. Overall 31.9% of all households surveyed in 2010/11 were members of multiple programs, up from 8.9% in 1998/9 and 0% in 1991/2. Having stated this, participation in a microcredit program does not imply borrowing, as some members have to wait, and save some money with the microfinance institution before they can borrow (Shahidur Khandker, 2014). Khandker et al. (2014) highlighted a key feature of microfinance in Bangladesh, which is the mandatory savings, mostly in the form of weekly savings and deposits, out of a certain percentage of the loans disbursed. This saving requirement ensures that as a household's income increases, so does their wealth. Poverty indices, both for instances of moderate and extreme poverty, over the past 20 years have reduced, but they have reduced more for participants of microcredit programs and members of microfinance institutions, than non members (Shahidur Khandker, 2014). Khandker et al. (2014) observed that market saturation resulted in decreasing returns to credit, as microcredit participation in villages increase. This is due to later entrants into microcredit programs and microfinance initiatives, competing away the returns of the earlier entrants, indicating benefits of earlier membership into these programs. With multiple program membership, there is the negative connotation that members are simply taking a new loan to pay off an old loan, and hence shall forever remain entrapped in debt. However there is also the possibility that households are trying to diversify their sources of income due to village diseconomies, hence need to borrow from multiple sources due to the inability to raise enough capital from a single source. Khandker et al. (2014) found out that the phenomenon of multiple program membership did not result in an increase in default rates, which may be due to a positive village level effect of multiple program membership, since the marginal effect on the individual of having multiple sources of credit yields a positive impact on household income. This means that multiple program, or institutional, membership can have a positive effect on households, as long as the household's demand for credit is not met by a single source of credit.

The European Bank for Reconstruction and Development (EBRD), through Augsburg et al. (2012), undertook a randomized study to analyze the extent to which a lack of credit inhibits entrepreneurship and perpetuates poverty, in Bosnia and Herzegovina. The study aimed to provide microcredit to small scale entrepreneurs who were considered 'at the margin', hence would not have been able to otherwise access any financial services. 1,198 such entrepreneurs were identified and randomly allocated, with a 50% probability, to a treatment group (received the loan) or control group (did not receive a loan). A baseline survey was carried out once the loans were disbursed, which involved all participants from both groups, and fourteen months later a subsequent survey was carried out. Firstly, the researchers observed that increased access to credit caused increased level of business activity and more self employment, within the treatment group as compared to the control group. They noted that increased business activity did not translate to higher income levels, or business profits, however they attributed this to the duration of the study, conceding that fourteen months may be too short a duration to observe any increased income levels, or business profits. They also observed that more educated

entrepreneurs invested in service sector businesses, while their less educated counterparts ventured into small scale agricultural activities. Another trend observed was that the less educated households were more likely to reduce school attendance of their teenage children (aged 16-19) and let them work in the enterprise; reducing their likelihood to finish schooling by 19%. Regular microfinance clients usually increase the educational attainment of their children, hence this was an unexpected trend. However care in the interpretation of this trend is advised, on one hand returns from educational attainment may be perceived to be lower than working in the family enterprise, or financial restrictions may be inhibiting educational attainment of children in this borrower group. Furthermore, a critical finding of this research was the fact that late payment was 1.5 times more likely for this 'at the margin' entrepreneur category, and default rates were three times higher than regular first time microfinance clients, indicting the riskier nature of this borrower group. The research team commented on the role of gender on microfinance initiatives, concluding that effect of business simulation and likelihood of being self employed was driven by women. Women were more likely to start a business, as compared to the control group, and leave the young adults in their households enrolled in school. The research team postulated that this was possibly due to male borrowers using the access to credit to scale up, or expand business activities, which required them to crowd in further resources resulting in a cutting back of consumption. Women were more likely to create a small scale business, not requiring any significant additional resources. The researchers concluded that fourteen months may be too short a duration to notice increased business profits and incomes, despite increased entrepreneurial activity. They also concluded that access to finance may not be the only means of attaining entrepreneurial success, and stressed the need for trainings and alleviation of liquidity constraints for poorer households, to ensure their children complete their education. This experiment into the effects of microcredit on entrepreneurship and alleviation of poverty can be used to extrapolate the effects of microcredit in Kenya, due to the intricacy and complexity of the study.

2.3 CONCEPTUAL FRAMEWORK

Poverty alleviation can be quantified by analyzing changes in income levels, number of meals consumed by a household, as well as the variations of meals consumed, number of school going children and the ability of a household to handle economic shocks and fluctuations. Idowu and Oyeleye (2012) observed that according to the World Bank organisation, the most commonly used way to measure poverty is based on income i.e. a person is considered poor if his/her income falls below some minimum level necessary to meet basic needs. This research study shall consider changes in income levels, since income levels primarily drive the other factors of assessing poverty i.e. a household earning higher levels of income will be able to send all the children to school, consume a wider variety of meals more often as well as cope with economic shocks and fluctuations. Zainal (2007) concluded that case studies are a practical solution when a big sample population is too difficult to obtain, also acknowledging that both quantitative and qualitative analysis of data can be employed, with the added advantage of capturing the complexity of real life situations. These factors make it clear that a case study research approach

will be the most appropriate method for this research. Gender equality requires certain measures focused towards women empowerment to be enacted within a society, which include equal access to education, equal opportunities at the workplace and financial inclusion (Cornwall, 2016). For the purpose of this research, women empowerment shall be gauged from the aspect of financial inclusion i.e. the proportion of women being assisted with microproducts as compared to their male counterparts.

The study carried out by Quaye et al. (2014) observed that the European Commission (EC) defined a micro enterprise as one with 0-9 employees, while a small enterprise consisted of 10-99 employees and those with 100-499 employees as medium enterprises. They went on to identify the classification on firm size made by the UNIDO for developing countries, which considers micro enterprises as those with fewer than 5 employees and small enterprises as those with less than 20. The Micro and Small Enterprises Act 55 of 2012 in Kenya defines a micro enterprise as one whose annual turnover does not exceed Ksh 500,000 and employs less than 10 people; and a small enterprise as one whose annual turnover does not exceed Ksh 5,000,000 and employs less than 50 people. For the purposes of this research, micro and small entrepreneurs shall be defined as per the Micro and Small Enterprises Act 55 of 2012.

Table 1. Measurement of variables and analysis of objectives

	OBJECTIVES	DATA REQUIRED	SOURCES	ANALYTICAL TOOLS
1	Analyze and ascertain whether microfinance leads to poverty alleviation	Income before microloan, income after microloan, headcount of the poor before and after disbursement of the loan, poverty gap	Clients of the microfinance bank	Foster-Greer-Thorbecke poverty index and partial correlation
2	Ascertain to what extent women have benefited from microfinance activities	Number of women beneficiaries from the total number of respondents, the total number of male and female clients that enjoyed credit facilities	Women clients from the entire sample population, sex of the clients of the bank	Frequency tables, Percentage and matching framework analysis

The information will be sourced through field work.

2.4 KENYA WOMEN MICROFINANCE BANK (KWFT)

Kenya Women Microfinance Bank Limited was established in 2008, however the organization began operations in 2009 after taking over the microfinance business from Kenya Women Holding (the parent company). In 2010 the institution was licensed by the Central Bank of Kenya (CBK) to operate as a Deposit Taking Microfinance Bank. Operating through 230 branches spread over 45 of the 47 counties, the institution is able to access markets in urban, peri-urban, rural and remote regions of Kenya. The KWFT Bank offers saving and credit products, catering to the needs of micro, small and medium sized enterprises.

The company is a private limited company. The shareholders are:

- Kenya Women Holding Ltd
- The Trustees - The KWFT ESOP Trust
- Rural Impulse Fund II S.A SICVA
- The Trustees - The KWFT DSOP Trust
- Norwegian Microfinance Initiative Frontier Fund
- Norwegian Microfinance Initiative Fund III
- The Trustees - The KWFT CSOP Trust
- 60,974 KWFT Members
- KWFT Board members
- KWFT Staff

The primary beneficiary of the organization's operation is the women of Kenya. KWFT prides itself in being the only financial institution in Kenya that exists mainly to uplift, empower and promote the women in Kenya. This mission is encompassed in the organization's slogan 'Banking on women'. The bank has the highest percentage of female clients in Kenya. However the institution does not seek to discriminate based on gender and has a male customer base as well. Micro, small and medium sized enterprises, as well as organized groups are clients of the organization. The institution aims to ensure financial inclusion for the poorer members of society, and hence maintains a strong presence in areas with high instances of poverty. The organisation also intends to set up operations in other East African countries.

3. RESEARCH METHODOLOGY

3.1. RESEARCH DESIGN

The research aims to ascertain the effectiveness of microfinance as a tool of poverty alleviation, with a keen interest on assessing the effect of microfinance on women, in Dagorreti North sub-county, using entrepreneurs in Kawangware slum, as a population sample, and Kenya Women Microfinance Bank as a case study. The sampling units shall be identified using stratified random sampling. A case study of KWFT Bank is being used due to the high level of women clientele, and the selected area has been targeted due to the high instances of poverty coupled with data collection and evaluation constraints. Poverty alleviation shall be quantified by an increase in income levels. Women empowerment shall be quantified based on rates of inclusion in microfinance programs.

3.2 NATURE OF THE STUDY

The population sample shall comprise of 50 micro and small entrepreneurs that qualify, and have received the Biashara loan offered by KWFT Bank in the Kawangware slum. The Biashara loan is designed to specifically target micro and small entrepreneurs, who fit the criteria for this study.

Quantitative data shall be collected. Quantitative data collected will be the a range of monthly gross income (revenue - cost of sales) earned by the sample units before the microloan disbursement, and a range of their current level of gross monthly income after the microloan disbursement. An average of this range will then be calculated for the purpose of this research study. The sample units selected received their initial disbursement approximately 4 years ago, hence the effect of the microloan may be evident in their income level. Moreover, this time frame to analyze the effect of micro products has been selected since, financial inclusion rates have been relatively higher in Kenya since 2013 (CBK, 2016) which implies a higher uptake of financial services since this year. The Foster-Greer-Thorbecke (1988) indices will be calculated, before and after the microloan disbursement, to examine the impact of microfinance on the standard of living of the clients of KWFT Bank i.e. the sample units. Qualitative data shall be collected as well. Sex of the individual sampling items shall be obtained in order to investigate the impact and benefit of microfinance on women. A frequency percentage matching framework analysis shall be used in order to quantify the impact microfinance has on women.

Foster et. al (2010) prescribed the Foster-Greer-Thorbecke (1988) indices as;

$$FGT_{\alpha} = \frac{1}{N} \sum_{i=1}^H \left(\frac{z-y_i}{z} \right)^{\alpha}$$

where z is the poverty threshold, N is the number of people in the sample, H is the number of poor (those with incomes at or below z), y_i is the monthly income of each individual i . If α is low then the FGT metric weights all the individuals with incomes below z roughly the same. The higher the value of α , the greater the weight placed on the poorest individuals. The higher the FGT statistics, the more poverty there is in an economy.

When $\alpha = 0$, the index reduces to the headcount ratio i.e. the portion of the population living below the poverty line.

$$FGT_0 = \frac{H}{N}$$

When $\alpha = 1$; the index is the poverty gap index, and when $\alpha = 2$, it is the squared poverty gap. The FGT_1 and FGT_2 statistics measure the severity of poverty.

These indices will be used for the purpose of this research to ascertain whether microfinance leads to poverty alleviation in selected areas of Nairobi county, since a reduction in the poverty gap index represents poverty alleviation. This will be done by calculating the index before the microloan disbursement, and recalculating the index after the microloan disbursement.

$$FGT_{\text{before}} = \frac{1}{N} \sum_{i=1}^{H1} \left(\frac{z-y_{i1}}{z} \right)^{\alpha}$$

and

$$FGT_{\text{after}} = \frac{1}{N} \sum_{i=1}^{H2} \left(\frac{z-y_{i2}}{z} \right)^{\alpha}$$

where ; N = number of respondents

$H1$ = headcount of the poor before the microloan

$H2$ = headcount of the poor after the microloan

$y1$ = monthly income before the microloan

$y2$ = monthly income after the microloan

z = poverty line using \$1.25 per day aggregated for a month (30 days)= Ksh 129.72 × 30

4: RESULTS AND DISCUSSION

4.1 THE FOSTER-GREER-THORBECKE INDICES

In order to achieve objective one of the study, i.e. to analyze whether microfinance leads to poverty alleviation in Dagoretti North sub-county of Nairobi, the Foster-Greer-Thorbecke (FGT) family of poverty indices was used. Firstly, FGT_0 was calculated before and after the microloan disbursement. This is the headcount ratio, and indicates the proportion of the sample population living below the poverty threshold. Next, FGT_1 was calculated before and after the microloan disbursement. This index ascertains the level of poverty within the sample, however all units below the poverty threshold have roughly the same weighting. Finally, FGT_2 was calculated before and after the micro loan disbursement. This index places greater emphasis on the poorest individual sample units, hence the level of extreme poverty within the sample population can be highlighted.

The poverty threshold used was \$1.25 per day, which when converted into Ksh, at the prevailing exchange rate of \$1/Ksh 103.77, and aggregated for a month, translated to Ksh 3,891.60 per month. The sample units with a monthly income at/below this level were considered poor.

The population sample comprised of 50 units, however there was an actual response rate of 66%, hence N=33.

Table 2: Poverty measurement before and after microloan disbursement, using the FGT indices

	FGT_0	FGT_1	FGT_2
Before	0.7576	0.2374	0.101
After	0.5454	0.1117	0.0282

The results show that the headcount ratio before the microloan disbursement is 0.7576, or rather that 75.76% of the sample population lived below the poverty threshold before the microloan disbursement. After the microloan disbursement, the headcount ratio reduced to 0.5454, or 54.54%. This result states that 21.22% of the sample managed to escape absolute poverty, and now live above the poverty threshold. This result is in consonance with the FinAccess household survey (2016) carried out by the Kenya National Bureau of Statistics, in conjunction with other government institutions, which highlighted the fact that most households in the Kawangware slum live below the poverty line.

As for the poverty gap index and the square poverty gap, there was a notable change i.e. the poverty gap index fell from 0.2374, to 0.1117, while the square poverty gap fell from 0.101 to 0.0282. This result indicates that the severity of poverty, for the households still living below the poverty threshold, has been significantly improved. This result goes on to exemplify that microfinance does lead to poverty alleviation, which concurs with studies carried out by other researchers, such as Manisah (2004), Oluwaseun (2014), Quaye et al. (2014), Younger (2004), Idowu et al. (2012), Samer (2015) and Khandker (2014).

4.2 EXTENT TO WHICH WOMEN HAVE BENEFITED FROM MICROFINANCE

Cornwall (2016), in the Journal for International Development, postulated that women empowerment is delivered through the provision of certain fundamental conditions, chief of which is financial inclusion. During this research study the gender of individual sample items was recorded with the underlying assumption that women empowerment can be ascertained through their access to financial services obtained for entrepreneurial or commercial activities, and more specifically for this study, involvement in microfinance initiatives. Due to the nature of the microloan disbursed i.e. the Biashara loan, the women who obtained the loan used the disbursement for business purposes, rather than for consumption. Consequently, there involvement in this microfinance initiative lead to entrepreneurial or commercial activities, which indicates women empowerment . Using a frequency percentage matching framework analysis, the following results were obtained;

Table 3: Gender distribution of the sample items

Gender	Frequency	%
Male	13	39
Female	20	61
Total	33	100

The results indicate that the sample was comprised of more females than males i.e. more women than men. This can be extrapolated to indicate that there is more female involvement in microfinance initiatives, hence access to financial services for women. This translates to women empowerment, in accordance to Cornwall (2016). Thus, microfinance initiatives have been inclusive of women, and have contributed towards women empowerment.

5. CONCLUSIONS AND RECOMMENDATIONS

Poverty is a global phenomenon, affecting a large portion of the world's population. This phenomenon is more so prevalent in Sub-Saharan Africa, where by the number of people living below the poverty line is significantly higher than other regions (Dahir, 2015). Otiende et al. (2015) observed that almost half of Kenya's population is living in poverty. One of the reasons for this prevalence of poverty is lack of access to financial markets. Moreover, lack of women involvement in the economic process, as a result of cultural bias, social stigma, lack of access to a means of production and so on, has fueled and enabled the occurrence of poverty. The eradication of absolute poverty, and women empowerment are aims of the SDGs (sustainable Development Goals). Microfinance initiatives offer an alternative way to provide financial services to people living in a vulnerable economic situation. The access to financial services allows for households to escape poverty, and encourages women to take part in the economic process, and this is in consonance with the SDGs. This study was carried out to analyze the effectiveness of microfinance as a means of poverty alleviation in selected areas of Nairobi county, coupled with the aim of ascertaining the effect of microfinance on women empowerment, by observing the inclusivity of women in the microfinance initiative.

The study showed that there is significant impact of microfinance activities on poverty alleviation. The study also showed there is significant involvement of women in microfinance initiatives, which positively correlated with the findings of Idowu et al. (2012). Therefore, the study demonstrated that microfinance does have a positive effect on household income, and it furthermore suggests that microfinance initiatives have been inclusive of women. Based on these findings, the following recommendations were drawn:

- The regulatory body, the Central Bank of Kenya, should compel microfinance banks to charge lower interest rates in order to make the microloans more productive for their clients. Lowering the interest rates will make access to finance cheaper, and this will lead to greater benefits for the clients of the institutions. Also, a reduction in interest rates charged will also encourage greater levels of involvement in microfinance initiatives.
- The Central Bank of Kenya, and other donor organisations, should give out soft loans to microfinance institutions in order to reduce the cost of obtaining funds for the microfinance institutions, which will allow them to reduce the interest rate they charge to clients.
- The microfinance bank should encourage the formation of cooperatives and groups between clients in similar business sectors, in order for them to enjoy credit facilities jointly in order to reduce operating costs, which can be reflected in lower interest rates.

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