ASSESSMENT OF THE OUTCOMES OF WOMEN ECONOMIC EMPOWERMENT PROGRAM: A CASE OF HAND-IN-HAND EASTERN AFRICA PROJECT IN KITUI

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF ARTS DEGREE IN MONITORING AND EVALUATION OF POPULATION AND DEVELOPMENT PROGRAMMES: DEPARTMENT OF GEOGRAPHY, POPULATION AND ENVIORNMENTAL STUDIES OF THE UNIVERSITY OF NAIROBI

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ABSTRACT

The objective of this study was to assess the effectiveness of Hand-In-Hand Eastern Africa's (HIHEA's) intervention on increasing women's monthly enterprise earnings. Data for the assessment was collected from the direct beneficiaries through a structured questionnaire. SPSS was employed in the analysis, using a two way ANOVA and Paired samples T-test. The findings show that the project on women's monthly enterprise earnings increased by 5.6 percent. The two-way ANOVA also revealed an interaction between respondent category and sub-county (implementation site) on women's net monthly income. Further, the mean monthly income for treatment group is greater than that of comparison group in all sub-counties except for Kitui East where comparison group earned more, but with an overall P-value of 0.56. Only 17.7 percent change in monthly business income was registered when the difference in means was analysed. In conclusion, the effect of the project on women's monthly enterprise earnings is relatively low, the variance in monthly enterprise earnings across different project locations and categories is statistically insignificant and HIHEA's implementation logic seem not to be effective, since the objective of achieving an increase of at least 30 per cent in women's monthly enterprise earnings was not achieved. It is recommended that the baseline enterprise income estimates to be captured in actual estimates and not interval rates, so that comparison can yield a significant effect of the project on income increase. The implementation sites and factors thereof should be further investigated to establish their influence on income increase, and if they can be replicated in other projects for greater effectiveness. This would necessitate re-alignment of the intervention logic.

DECLARATION

This project is my original work and has never been submitted for a degree at another University.

ANTHONY ODHIAMBO

Signature  Date 30th November, 2022

This project has been submitted for examination with our approval as the university supervisors:

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DEDICATION

I dedicate this project to my parents, Mr. Walter Odhiambo Otieno and Mrs Tabitha Atieno Ochanjo, who always have an exceptional passion for education, and my wife Damaris Waithera for her patience and support throughout the study period. My deep appreciation also goes to my other family members for their constant prayers, support and encouragement. Lastly, I appreciate Hand in Hand Eastern Africa for granting me the opportunity to conduct this study.

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Table of Contents

ABSTRACT i
DECLARATION ii
DEDICATION iii
ACKNOWLEDGEMENT iv
CHAPTER ONE: INTRODUCTION 1
1.1 Background to the Study 1
1.2 Problem Statement 2
1.3 Research Questions 3
1.4 Research Objectives 4
1.5 Justification of the Study 4
1.6 Scope and Limitations 5
CHAPTER TWO: LITERATURE REVIEW 7
2.1 Introduction 7
2.2 Theoretical Perspectives 7
2.3 Empirical Findings 7
2.3.1 End-term Evaluation of Hand in Hand and CARE Job Creation Project in Rwanda 8
2.3.2 End-term Evaluation of Women Socio-economic Empowerment Project in Afghanistan 10
2.3.3 Effects of Minimum Wage Increase on Employment; A Case of Fast Food Chain Industry in New Jersey and Pennsylvania 12
2.4 The Operational Definition of Empowerment 13
2.4.1. Measuring Women Empowerment 13
2.4.2. Challenges to Measuring Women Empowerment 15
2.5 Swiss Re Cohort of Entrepreneurs Project 15
2.6 Conceptual Framework 19
2.7 Operational Framework. 20
2.8 Research Gap 20
2.9 Definition of Key Terms 21
CHAPTER THREE: DATA AND METHODS 22
3.1 Introduction 22
3.2. Evaluation Designs 22

3.2.1 Difference in Differences Evaluation Method 23
3.3 Sampling Design and Sample Size 26
3.4 Data Collection and Processing 27
3.5 Data Analysis Method 27
3.6 Ethical Consideration 28
CHAPTER FOUR: RESULTS OF THE WOMEN EMPOWERMENT OUTCOME ASSESSMENT 29
4.1 Introduction 29
4.2 Response Rate 29
4.3 Status of Swiss-Re Cohort of Entrepreneurs Project 29
4.4 The Impact of the Project on Monthly Earnings 30
4.5 Influence of Project Implementation Site on Women Economic Empowerment 31
4.6 Effectiveness of HIHEA's Intervention Logic in advancing Women Economic Empowerment 33
4.7 Discussion 33
4.8 Limitations 34
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS 35
5.1 Introduction 35
5.2 Summary 35
5.3 Conclusion 36
5.4 Recommendations 38
REFERENCES 40
APPENDIX I: QUESTIONNAIRE 42

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The field of monitoring and evaluation, commonly referred to as M&E, has gained prominence in the recent past, and has since developed to a community of professions known as M&E Practitioners or Evaluators. During this ascendency, there has been heightened awareness of the significance of empowerment for women and, more specifically, the use of evaluation methods to assess the outcomes of such empowerment programs. The issue of women empowerment, which this study focuses on, is aligned to the concerns of why women need to be empowered, make meaningful choices, and control their lives. However, women empowerment is not a linear process, but a journey embedded in the roles played by different actors to ensure that female citizens benefit from a country's infrastructure, operated and articulated at various sectors and levels. Therefore, this study sets out to use a case of Hand-In-Hand East Africa (HIHEA), a non-profit organization based in Nairobi, to assess the effectiveness of HIHEA intervention on women empowerment, the influence of project location on women empowerment outcomes, and the true effect of the project on women empowerment in the context of this research project. This study focusses on assessing the outcomes selected to address the research objectives and questions set out.

Hand-In-Hand Eastern Africa is one of the not-for-profit organizations, which has supported growth agenda around poverty reduction and well-being among women in Kenya. A conglomerate of five independent non-governmental organizations (NGOs), Hand-In-Hand focuses on reducing poverty through training on small business start-up, and by extension job creation, as well as short-term loan offers to women. The organization has integrated a holistic job creation model which is organized into four steps. First, it undertakes social mobilization through the creation of self-help groups which comprise mainly of women who have come together with a common objective. Second, the organization trains members how to start and run an enterprise, and key financial management areas. Third, it provides access to microloans and finance through the organization's enterprise incubation fund or via external credit providers. Fourth, it scales up members' businesses by supporting members' access to markets. Despite the elaborate efforts by the organization toward women empowerment, its use of a pre-post

assessment method in determining the achievement of intended outcomes has limitations as it does not control for other factors that may influence the targeted outcomes, hence establishing the true effect of an intervention may not be possible with this type of assessment.

1.2 Problem Statement

The process of women economic empowerment often comes with significant demand on most intervening organizations and targeted individuals or groups. For instance, sometimes it is difficult to identify individual or household level factors that influence the outcome of empowerment. According to Buvinic and Furst-Nichols (2015), what works for a specific individual does not necessarily work for another. However, women and social roles are interdependent and hence it is challenging to point what factor may have contributed to a specific empowerment. Nevertheless, some similar interventions have been seen to increase women's income, especially in societies where social restrictions are not binding.

Further, the challenge may be compounded by the program's limited operational understanding of what outcomes relate to a specific intervention. Simply, while most women empowerment initiatives provide a good impetus not only for women's benefit but also for community development, there has been a crucial lack of knowledge regarding the most effective interventions that advance women opportunities (Buvinic & Furst-Nichols, 2015). According to a study conducted by Abalang (2016), most NGO's fail to account for the outcomes of their program due to their inability to respond to the changing needs. Besides, such organizations may have weak monitoring and evaluation systems due to poor leadership or lack of public engagement in developing systems. As a result, the systems that are in place fail to account for immediate or long term outcomes of a project (Chesos, 2010).

A review of rigorous evaluations of interventions that seek to empower women economically shows that the same class of interventions has significantly different outcomes depending on the client. Capital alone, as a small cash loan or grant, is not sufficient to grow women-owned subsistence-level enterprises (Buvinic and Furst-Nichols 2014). However, it can work if it is delivered in-kind to more successful women micro-entrepreneurs, and it should boost the

performance of women's larger-sized SMEs. Very poor women need a more intensive package of services than do less poor women to break out of subsistence production and grow their businesses. Skills training, job search assistance, internships, and wage subsidies increase the employment levels of adult women but do not raise wages. Women who run subsistence-level firms face additional social constraints when compared to similar men, thus explaining the differences in the outcomes of some loans, grants, and training interventions that favor men. Social constraints may also play a role in explaining women's outcome gains that are short-lasting or emerge with a delay.

(Negash, 2010) shows that increased income controlled by women gives them self-confidence, which helps them obtain a voice and vote on household decisions such as domestic well-being decisions, economic decisions such as acquiring, allocating, and selling assets, fertility decisions and land use and conservation decisions.

This underscores the importance of assessing women's economic empowerment with the right evaluation methodology, therefore, a review of end-term project evaluations in Rwanda (HIH&CARE), Afghanistan (HIH) and Kenya (HIHEA) suggests that Hand in Hand's affiliate organizations, including HiHEA, do not effectively use evaluation methods to assess the outcomes of projects and in cases where they are used, various challenges hinder sufficiency of the assessment. Therefore, this study looks into the assessment of past HiH programs and uses difference-in-differences evaluation method to assess the outcomes of a women economic empowerment project in Kitui County, to determine the extent of the project's influence to women's monthly enterprise earnings, thereby initiating the possible redesigning of HIHEA's intervention logic.

1.3 Research Questions

The broad research question is, what is the impact of the HIHEA initiative on women's economic empowerment in Kitui County, Kenya. Specifically, the study will address the questions below:

1. What impact will the project have on women's economic empowerment?

2. Is there a link between the project location and the degree of economic empowerment for women?
3. Is the HIHEA's intervention logic effective in advancing women economic empowerment?

1.4 Research Objectives

The broad objective of the study is to probe the impact of HIHEA's project on women's economic empowerment in Kitui Country, Kenya. Specifically, the study will address the following objectives:

1. To establish the impact of the project on women economic empowerment.
2. To determine whether the project location affects women economic empowerment.
3. To establish the effectiveness of HIHEA's intervention logic in advancing women economic empowerment

1.5 Justification of the Study

Monitoring and evaluation plays a significant role in women empowerment initiatives, and it occupies an important position in an entire project cycle especially before and during project implementation stage. However, various institutions have not been successful in measuring and attributing outcomes of different interventions. Therefore, this study employs the appropriate evaluation design to assess the influence of women economic empowerment programs on women's monthly enterprise earnings. In this case, M&E functions as a tool and strategy for ensuring that the desired outcomes are attained (Jamaal, 2018). Other than remunerating its predictive tendency and highlighting the important role it plays in women empowerment projects; the study also brings to the fore the challenges of M&E in the strategic intervention process at Hand-in-Hand Eastern Africa that makes it difficult to assess project outcomes. Besides, this study also advances the role that M&E plays in supporting the transformation of women in Kenya as it propagates the ideals of a well-planned empowerment and improvement initiative, which resonates with gender equality. This study will help in highlighting the impact of the project, especially how HiHEA program helps to boost the resilience of impoverished

women in rural areas, increase personal savings, access to group loans, and increased household incomes.

The results obtained from this study will be expected to be used to adjust other future program designs to avoid shortcomings experienced in the current program, and understand better the constraints of M&E systems in the organization and how they work in the assessment of project outcomes. Since M&E is a new field that has recently emphasized result-based management, this study will add to the existing literature. Therefore, this research is not only important to HiHEA but also to other Non-Governmental Organizations, donor agencies, project managers, and monitoring and evaluation students working on the development and implementation of result-based monitoring and evaluation systems.

The findings of this study will be significant for learning institutions in shaping the role of education in women's empowerment. While poverty and lack of access to equitable education are some of the key obstacles to women's success, learning institutions may adopt the findings of this research to reverse the trend. Achieving positive change in these areas demand that learning institutions re-examine how inequality is experienced at the household and organizational levels, and, hence, undertake a gender transformative research that focuses on women empowerment. For instance, academics can embrace these findings and use them to train women to participate in national development agenda.

1.6 Scope and Limitations

This study focuses on two important fields: evaluation methodology and women economic empowerment. The evaluation methodology that a study design adopts, determines whether or not the counterfactual question of what would have happened if the project had not been implemented, will be adequately addressed by the study. Therefore, the idea around this study is that M&E plays a significant role in promoting the core mission of the organization, which is the reduction of poverty through enterprise development and job creation. Similarly, it supports the adoption of results-based approaches in helping impoverished women and young people in Kenya to thrive as entrepreneurs. In this way, this study looks into how M&E influences the

assessment of the outcomes of women economic empowerment against the desired outcomes of Hand in Hand Eastern Africa's interventions.

This study will be limited to the difference-in-differences evaluation method of assessing the outcome of interest. The difference-in-differences evaluation method is dependent on assumptions which must hold, most important being the parallel trend assumption which imply that in the absence of the project, what happens to the treatment group is what happens to the comparison group. It will target the beneficiaries of the program since the program was launched in August 2016.

This study will focus on monthly household income and business income as measured by the project, on women beneficiaries. The other two project indicators: number of jobs created and the number of beneficiaries reporting improved environmental awareness were not assessed due to data limitations.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The focus of this chapter is on literature regarding how M&E concepts can be used to assess the change in outcomes in women empowerment initiatives. The areas covered in this chapter include theoretical perspectives, empirical findings which delves into examples of project assessments and evaluation designs employed, operational definition of empowerment, measuring women empowerment, challenges to measuring women empowerment and the Swiss-Re project that is the subject of the study. Lastly the chapter covers the conceptual framework, operational framework, research gap and the definition of key terms.

2.2 Theoretical Perspectives

The theoretical perspectives that feature prominently in Hand-in-Hand projects design is classical socioeconomic development models such as the economic modernity. The classical modernization perspective emphasizes that an increase in democracy and human choice directly contributes to economic development (Bell, 1999). Thus, HIHEA relies on this theory to increase the pull of women with access to economic resources and, as a result, social power. The organization believes that capacity building on entrepreneurship and financial literacy, as well as access to financial resources encourages women's involvement into enterprise start-up and thereby increases their chances of coming out of economic deprivation. Thus the study addresses theoretical basis of the Hand-in-Hand project design and reviews previous HIHEA projects by comparing them to end-term evaluation of CARE job creation project in Rwanda and women socio-economic empowerment project in Afghanistan.

2.3 Empirical Findings

Hand in Hand International is a global network comprising Hand in Hand Eastern Africa, Hand in Hand Eastern Africa (Tanzania), Hand in Hand Zimbabwe, Hand in Hand Afghanistan, Hand in Hand India and Hand in Hand Sweden. Hand in Hand International and Hand in Hand Sweden provide strategic support in fundraising and coordination within the Hand in Hand's network.

A review of past project evaluations reveal that quasi-experimental evaluation design is rarely applied in any project evaluation exercise, and even where this is mentioned to have been applied, the method of data analysis is in doubt, as to whether it answers the counter-factual question.

2.3.1 End-term Evaluation of Hand in Hand and CARE Job Creation Project in Rwanda

Hand in Hand (HiH) and CARE collaborated on the Hand in Hand and Care Job Creation project. The initiative, which was implemented by CARE Rwanda and HiH Eastern Africa in seven districts in Rwanda's Eastern Province, coupled CARE's Village Savings and Loan Group (VSLG) approach with HiH's entrepreneurship training. The VSLG is a volunteer group of 20-30 people who save and borrow from each other's savings. Members of the VSLG can get loans and save without the involvement of a third-party lender in this fashion. The VSLG receives interest on the loans, which helps the funds to expand. The group activities take place in 9-12 month cycles. Afterwards, in a "share-out," the accumulated savings and loan profits are paid to the members. To manage the VSLG transactions, the groups meet on a regular basis (weekly or fortnightly).

Through 3,000 Village Savings and Loans Groups, the project aimed to promote long-term improvements in livelihood resilience and diversity, small business start-up and growth, and employment opportunities for 100,000 poor and very poor people in Rwanda's Eastern Province, at least 75 percent of whom are women (VSLGs). The following activities were carried out as part of the project:

1) The creation of new VSLGs,
2) Training of new VSLGs on VSLG management and financial literacy,
3) Enterprise Development and Business Training for VSLGs, based on Training of Trainers (ToT) conducted by Hand in Hand East Africa (HiH EA),
4) Connecting VSLGs to formal financial structures such as Micro Finance Institutions (MFIs) or Savings and Credit Cooperatives (SACCOs),
5) Providing training in value chain management and creating a mentorship program where entrepreneurs from the project VSLGs were linked to experienced local entrepreneurs.

The End-of-Project evaluation was commissioned to analyze to what extent the program reached its objectives and outcomes. A specific focus was the gender-responsiveness of the project delivery.

The methodology included:1) carrying out a survey of 530 VSLG members, both project beneficiaries and non-project beneficiaries (i.e. VSLG members trained in CARE's VSLG methodology but not in entrepreneurship, called the Comparison Group), 2) focus groups with project beneficiaries, 3) interviews with project stakeholders and 4) document review of project-related documentation. Data collected from the Comparison Group and the project beneficiaries was used to assess the impact.

The end-term report goes on to conclude that the project was very successful in achieving three out of five major outcomes, which were:

- The project created close to 100,000 jobs,
- 84 percent of the project beneficiaries started enterprises (an increase from 33 percent at the time of the Baseline Study), and
- The target group has a higher level of income and invest more in fixed assets compared to at the start of the project.

The evaluation was also able to demonstrate that the project had an impact by evaluating where the Job Creation project recipients outperformed the Comparison Group:

- Beneficiaries of the project have more prosperous businesses. Women make more money than males.
- Beneficiaries of the project own and operate businesses in a market that the Comparison Group has yet to explore (service).
- Beneficiaries of the project save more.
- Beneficiaries of the project put more money into fixed assets.
- Beneficiaries of projects are more likely to hire employees (especially the E-VSLGs).
- Beneficiaries of the project have a stronger opinion of their business skills

A look at how these conclusions were arrived at reveals weaknesses in the data analysis. Some of these are documented in the limitations chapter. They are as follows:

- The baseline data provided to the Evaluation Team was incomplete and did not allow for a full comparison with the results of the End of Project survey.
- It was not possible to compare all End of Project Survey data against baseline data.
- No difference-in-differences analysis was done during data analysis. There were no two distinct baseline data sets for the beneficiaries and comparison groups on the indicators gathered. Hence addressing the counterfactual question to determine the true effect of the intervention was not possible.
- In some cases, only pre and post intervention outcome measures are referred to, to infer project impact without considering other factors that might have also influenced the change in the outcome measures.

2.3.2 End-term Evaluation of Women Socio-economic Empowerment Project in Afghanistan

In September 2016, Hand in Hand Afghanistan (HiH Af) facilitated an external End Term Evaluation for a project titled "Supporting Rural Entrepreneurship and Promoting Women Socio-economic Empowerment". The project, implemented in the Dara e Suf Bala and Dara e Suf Payan districts of Samangan, commenced in 2014 and ended in 2016. The European Union and Hand in Hand International (HiHI) supported the project. The project's goal was to encourage rural business while also improving women's socioeconomic empowerment. The project's overall purpose was to form, teach, and encourage community members to form Self-Help Groups (SHGs), which would then serve as sources of increased economic activity and job development. The project's overall goal was to promote the socio-economic rights of 5,400 underprivileged rural Afghan women and men and economically empower them to create 8,100 jobs, with a concentration on women.

The evaluation was carried out using the following methodology:

Desk Review

The desk review was broken down into three parts:

1 – Immediate Contextual Information

The team looked at (rural) women entrepreneurs in Afghanistan to see how they fit into the larger economy and what kind of help they would require to succeed.

2 – Wider Context

In order to draw out possibly applicable best practices that could be valuable to the project evaluation, a quick study into other, non-Afghanistan-based literature on women entrepreneurs was also done. Given the wide range of country contexts, this will be utilized as a technique to inform the field research rather than as part of the findings.

3 – Project Background

The goal of the desk review was to learn more about the project's history. HiH delivered the progress reports, annual reports, monitoring reports, midterm evaluation, and other important documents.

Key Informant Interviews

A total of 35 key informant interviews were organized and conducted at random, with the results triangulated with other interviews. The term "key informant" in this study refers primarily to rural women and men entrepreneurs who are deemed HiH project beneficiaries. When feasible, a wide range of women and men entrepreneurs were questioned, with a focus on the effectiveness of business trainings, service quality, and access to productive assets, among other things. In addition, focus group discussions and stakeholder interviews were also conducted.

Focus Group Discussions

Participants from both specified districts participated in a total of five Focus Group Discussions (FGDs) with a total of 7-12 respondents. Beneficiaries/respondents were given the opportunity to express their individual and group opinions on various areas of the project's implementation.

How data analysis, specifically quantitative, was conducted in this particular evaluation is not mentioned in the report. A review of the findings of the report did not reveal a clear data analysis method that was used, to warrant the conclusions of the end term evaluation, especially on the

percentage increase in net business income and household income reported. This raises more questions as to how the project influenced the increase in income.

2.3.3 Effects of Minimum Wage Increase on Employment; A Case of Fast Food Chain Industry in New Jersey and Pennsylvania

The difference-in-differences (DID) estimator is one of the most popular tools for applied research in economics to evaluate the effects of public interventions and other treatments of interest on some relevant outcome variables Abadie, (2003)

Card and Krueger (1993) conducted a research study on the effects of the law which had increased the minimum wage on employment in reference to the fast food industry, using the Difference-in-differences evaluation design. To evaluate the impact of the law Card and Krueger surveyed 410 fast food restaurants in New Jersey and Pennsylvania before and after the rise in the minimum wage. Comparisons of the changes in wages, employment, and prices at stores in New Jersey relative to stores in Pennsylvania (where the minimum wage remained fixed at $4.25 per hour) yield simple estimates of the effect of the higher minimum wage.

Empirical findings challenge the prediction that a rise in the minimum reduces employment. relative to stores in Pennsylvania, fast food restaurants in New Jersey increased employment by 13 percent. Comparisons were also done on employment growth at stores in New Jersey that were initially paying high wages (and were unaffected by the new law) to employment changes at lower-wage stores. Stores that were unaffected by the minimum wage had the same employment growth as stores in Pennsylvania, while stores that had increased their wages a rise in their employment.

New Jersey stores were initially smaller than their Pennsylvania counterparts, but grew relative to Pennsylvania stores after the rise in the minimum wage. The relative gain (the "difference in differences" of the changes in employment) is 2.76 FTE employees (or 13 percent), with a t-statistic of 2.03. Inspection of the averages shows that the relative change between New Jersey and Pennsylvania stores is virtually identical when the analysis is restricted to the balanced sub-

sample, and is only slightly smaller when Wave 2 employment at the temporarily closed stores is treated as zero.

2.4 The Operational Definition of Empowerment

The term "empowerment" has been used to refer to different issues and the multiplicity of outcomes. Usually, the term is used to advocate for certain policies and promote the empowerment of women as individuals or groups. The concept has also been used to promote social inclusion as the framework for empowerment of individuals. According to Narayan et al. (2000), empowerment increased and continues to do so due to the growth of civil society and participatory development. The author reiterates that at the micro-level institutions such as households, there are interpersonal gender dynamics that affects the situation of social inclusion. In fact, according to Bennett (2002), empowerment and social inclusion, although separate concepts, are closely related and therefore enhance the assets and capabilities of different individuals. To the author, the empowerment process should operate from below to influence people targeted by the process at grass-root levels, whereas social inclusion aggravates pro-poor growth or systematic change to sustain empowerment process. Simply put, empowerment refers to the extension of freedom and choice for the disenfranchised gender in the context of women's development.

2.4.1. Measuring Women Empowerment

A good process for measuring women empowerment should use standards that lie without localised gender systems and must recognise various elements of gender subordination. The aforementioned literature makes it clear that the role of gender in development cannot be investigated without first understanding the socio-cultural paradigm in which development programs are implemented. The structures of gender inequalities even in the Kenyan society seem to be so naturalised that sometimes it is ignored in a particular social setting. Indeed, according to Pierre Bourdieu, most components of tradition and culture are taken for granted and have become normal. Most women in Kenya and other nations, for example, internalize their inferior status and regard themselves as lesser persons, reducing their rights and entitlements. Nevertheless, gender inequality is an inherently complicated phenomenon and men and women

are unequal in significant ways and the disparity varies across different settings. Additionally, various studies have shown that women are likely to be empowered in one area but not others. Therefore, a development project that empowers women in a specific dimension will not necessarily do so in other areas. In this case, there are several criteria for measuring women empowerment at household and community levels.

A number of efforts have been made to have a proper framework for distinguishing different dimensions through which women can be empowered. Based on these dimensions, it suffices to note that women empowerment occurs along familial/interpersonal, socio-cultural, political, legal, and psychological facets. Although these dimensions are broad in scope, women can be empowered within specific ones. For instance, socio-cultural dimensions entail issues such as marriage systems to physical ability of women. However, in order to measure and operationalize these dimensions, it is important for a researcher to consider indicators at household and community levels. For instance, for the dimension, some of the indicators which can be used at household level include women control of resources, their contribution to the family, and access to matrimonial resources, whereas at the community level, indicators such as women's access to employment, asset ownership, and loan availability, among other things, can all be measured. Factors that can be measured under familial/interpersonal dimension at household level include participation in the domestic decision-making, reproductive health decisions, and freedom from domestic violence, whereas at community level include value and autonomy for women and campaigns against domestic violence. Some of these dimensions may be closely interlinked compared to others. For instance, according to a research conducted by Kishor (2000) in Egypt about factors that affect women empowerment, the author found out that some of the dimensions are comparatively better correlated than others. A similar study by Jejeebhoy (2000) reveals that in comparison to control over resources and physical threats from husbands, decision-making, mobility, and access to resources were all closely linked. Evidently, since empowerment is dynamic and complex, researchers must develop scale variables that relates to it. They must also be cognisant of the fact that inappropriate combination of variables that relates to gender and empowerment will provide unreliable or inconclusive results of outcomes of interests.

2.4.2. Challenges to Measuring Women Empowerment

As alluded earlier, sometimes measuring women empowerment is elusive if a monitoring and evaluation tool is not properly designed. Often, the biggest challenge in measuring empowerment is the fact that attributes or factors that represent empowerment in a particular context have a different perception in another context. For instance, a change in women ability to make their reproductive decisions without the permission of their husbands may signify empowerment in Nairobi County but not in rural Rusinga Island. Therefore, the context in which a development initiative is established affects empowerment at individual and household levels as well as determines the significance of development outcomes.

The nature of the significance of empowerment is also another barrier to measuring women empowerment. Program officers often underestimate the criticality of context when initiating empowerment in various settings. Essentially, a program should be able to constantly redefine indicators to fit into social, cultural, and political conditions of the environment in which it is implemented. Ideally, context plays a critical role to determine the relationship between women empowerment and development outcomes. For instance, Mason and Smith (2000) conducted a research on the status of women and fertility, the researchers compared family decision-making power based on a scale constructed from six variables gathered from several countries. This research is an example of how contextual factors can only be important at analytical stage as opposed to measurement phase. Therefore, it suffices to conclude that a universal measure of empowerment is impossible.

2.5 Swiss Re Cohort of Entrepreneurs Project

The Swiss Re Foundation funded project was implemented in Kitui County, focusing on poverty reduction and an increase in climate change resilience through supporting the creation or enhancement of environmentally sustainable micro-enterprises, including eco-enterprises. The project aimed to build targeted communities' economic resilience to shocks through social enterprise so as to diversify their asset and income base. The project also incorporated a randomized control trial- with a comparison group of six self-help groups to compare change between those who were members of the project and those who were not, to identify if any

specific lessons could be extracted on the effectiveness of the Hand in Hand training approach. The six comparison groups were randomly selected at the start of the project, from a list of pre-identified self-help groups, ensuring that there was at least a 3 kilometers distance between comparison and treatment groups within a sub-county.

Project Objectives:

1. To mobilize and train 3,800 women (80 percent) and 760 men (20 percent)
2. To support the creation of 2,660 enterprises and 3,458 jobs, 30 percent being green enterprises and jobs
3. Increase the target beneficiaries' household income by up to 30 percent
4. Improve target beneficiaries' understanding and adoption of green business practices

The key objective of the project was to boost the long-term economic resilience of some 3,800 impoverished people in the county of Kitui by tackling the root cause of their poverty with entrepreneurship. The project also contributed to their resilience against environmental degradation by encouraging the adoption of green farming and business techniques and eco-enterprises.

There were four key activities:

1. Group formation and savings mobilization:

The project started by engaging the county's local leaders, then connecting with potential group members at the village level. The field officers elaborated expectations and requirements for compliance to each group and outlined that, unlike other NGOs, there would be no handouts. Once satisfied that groups met the set out standards, fall within the target demographics and are committed to the training, the group members were taught how to put in place formal institutions including a group constitution, elected leadership, and records. This was an essential phase to ensuring the long-term sustainability of Self-Help Groups well beyond the end of Swiss Re Foundation's support.

2. Entrepreneurship and climate change resilience training:

In weekly group meetings, the project's field officers (business trainers) provided the group members with training in the fundamentals of business such as price setting, differentiating and

adding value to their products and services, basic bookkeeping, and so on. Business trainers encouraged each member to identify potentially successful enterprises based on members' own skills and market opportunities. This could be tailoring, beekeeping, poultry rearing, shop keeping or fruit farming.

The group members were also trained on green practices covering improved water efficiency (e.g. rain water harvesting, conservation, and irrigation), and organic agricultural practices (e.g. eco-friendly fertilizers, including certified compost manure). In light of the county's exposure to environmental degradation, the project implementation team specifically encouraged entrepreneurs to develop businesses around: upcycling; renewable fuel such as bio-gas from cow-dung and renewable briquette production; and solar power.

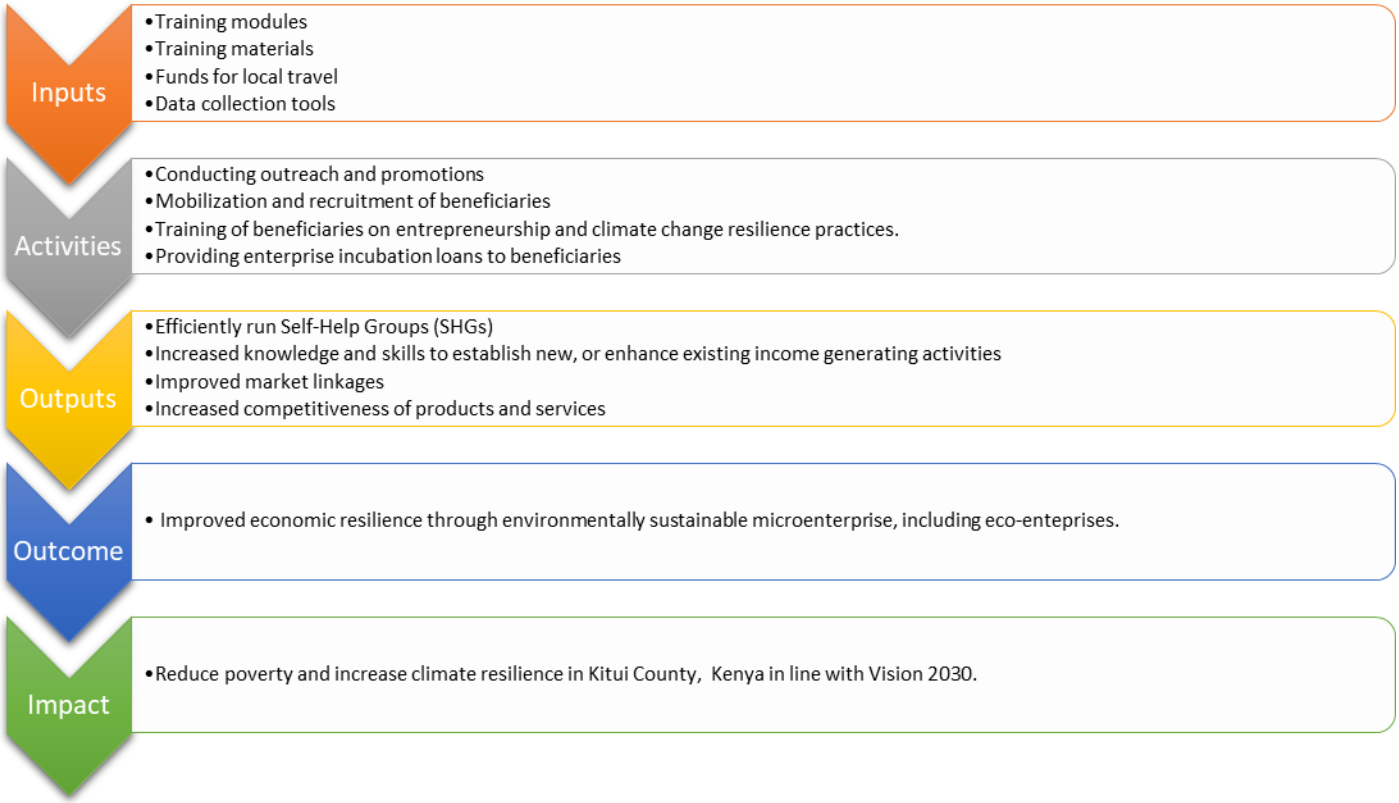
3. Access to credit:

Internal group funds were sufficient for some group members to cover their enterprise financial needs. However, over time most needed access to additional credit facilities. Hence group members were also trained on the pros and cons of taking up external loans and advised on the microfinance institutions offering affordable micro-credit in the county.

4. Market linkages:

Finally, the project helped to scale up members' enterprises, providing advice on how to produce to a quality and quantity required by larger customers. The project also raised the group members' awareness of larger contracts available through the Ministry of Agriculture's priority value chains in Kitui of poultry, avocadoes, mangoes and fish.

The project's theory of change (ToC) is as illustrated in the diagram below:



Under the project's outcome were four (4) indicators namely:

(i) Number of jobs generated with direct support from the project (disaggregated by gender) including 30 percent green jobs.

(ii) Percentage of group members' households that achieve an average change in income of at least 30 percent

(iii) Percentage change in average monthly net business income increase of at least 30 percent.

(iv) Number and percentage of group members who report improved environmental awareness in their business and household environment.

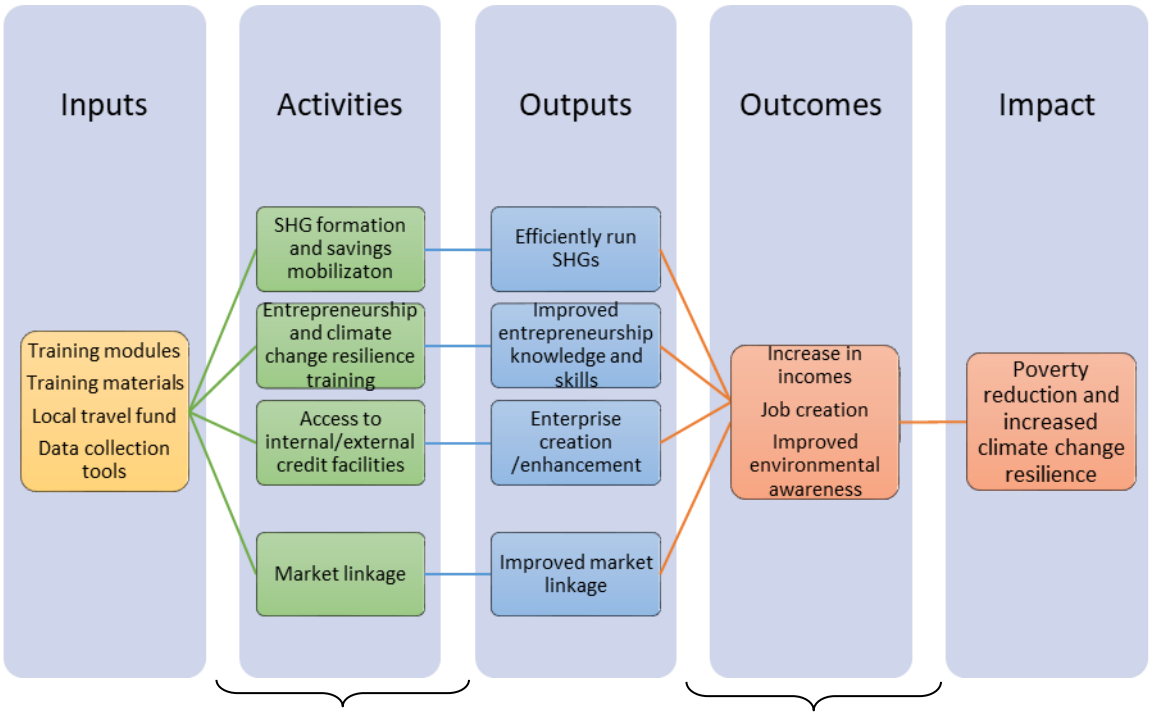
The indicators above are the variables that the project employs to determine whether economic empowerment of women beneficiaries has taken place or not.

This study focused on monthly household income and business income as measured by the project, on women beneficiaries. The other two indicators on number of jobs generated and the number of beneficiaries reporting improved environmental awareness, did not fit the type and

objective of data analysis for the study, hence the decision not to focus on them in the attempt to address the research objectives.

2.6 Conceptual Framework

This research project's conceptual framework was informed by Hand in Hand Eastern Africa's intervention logic model, which captures all the activities carried out in the implementation of the project.



These activities, covering Hand in Hand's intervention, were assumed to influence income increase both in business and household, among other outcomes, as shown above in the diagrammatic conceptual framework. This therefore means that the activities are the independent variables, and the income increase is the dependent variable.

2.7 Operational Framework.

Various activities are key parts of HIHEA project design. Empowerment is a complex concept that varies from one culture to another. For instance, men and women may have different perspectives when it comes to empowerment. Thus, the concept of empowerment in this research is considered from an economic approach. In other words, the empowerment that HIHEA advocates is the individual's or group's capacity to make independent choices and transform them into desired actions and outcomes. HIHEA recognizes that women must be fully involved in the decisions and processes that affect their well-being. Therefore, based on this conceptual framework and consequent data analysis, income change both at the business level and household level were measured. The income increase levels, number of jobs created, improvement in environmental awareness, and number of people who access credit facilities are key women empowerment indicators in the Swiss-Re Cohort of entrepreneurs project.

2.8 Research Gap

There have been concerns on how monitoring and evaluation concepts can be effectively used to assess various projects results, especially secondary level results such as outcomes and impacts. Evidence from the literature indicate that most institutions are yet to fully embrace M&E systems, and even in cases where it is integrated, there is no goodwill or technical knowhow to implement its components to the latter. In Kenya, achievements of M&E in outcome or impact assessment have been rare. Besides, in research studies, conventional research methods are often adopted in a number of surveys that ends up giving a single perspective on the phenomenon being studied. As a result, it becomes difficult to generalize findings on large organizations projects, let alone attributing results to interventions. This study, therefore, attempts to bridge this gap by introducing difference in difference method to assess the outcome of HiHEA's women empowerment project in Kitui county. Although DID is not a perfect substitute for other types of evaluation methods, it provides a feasible way to learn about causal relationships this study seeks to determine.

2.9 Definition of Key Terms

1. Comparison group: group of sampled respondents that did not receive project intervention.
2. Evaluation method: methodology for carrying out an assessment of a project or program.
3. Intervention logic: implementation strategy employed.
4. Treatment group: group of sampled respondents that received project intervention.
5. True treatment effect: the proportion of change in the outcomes of interest that can be attributed to the intervention, taking into account other factors.
6. Women empowerment: the economic advancement of women, through increase in their business and household incomes.
7. Quasi-experimental design: an evaluation design that is near experimental, and employs evaluation methods such as difference-in-differences (DID).

CHAPTER THREE: DATA AND METHODS

3.1 Introduction

This chapter presents research methodology used in the study. Critical areas covered in this section include evaluation design used in the research such as Differences-In-Differences, sampling design and sampling size, data analysis method, and ethical consideration of the study. The study adopts the Differences-in-differences (DiD) evaluation methodology, which is a quasi-experimental evaluation design.

3.2. Evaluation Designs

An evaluation design is a series of procedures and tasks that must be completed in order to analyze the results of a project or program in a systematic manner. An appropriate evaluation design should be able to show whether the intended project results were achieved, and whether the achieved results were due to the project activities or other factors. Project outcome evaluation designs can either be quasi-experimental or non-experimental, but not experimental.

In quasi-experimental designs, there is a comparison group (group of individuals not participating in the project or receiving the intervention). This is because a normal project implementation context does not grant the project implementers the absolute control of all factors that influence the outcomes of interest. This is only possible in a laboratory environment, therefore the evaluation design can only be near experimental (quasi-experimental) because the only factor that the project implementation team are in control of is whether or not the comparison group receives the intervention, and not experimental where not only the receiving of treatment is controlled, but also other factors influencing the outcomes of interest are controlled since the control group is usually in a controlled environment, hence the name control group for experimental designs and comparison group for quasi-experimental designs.

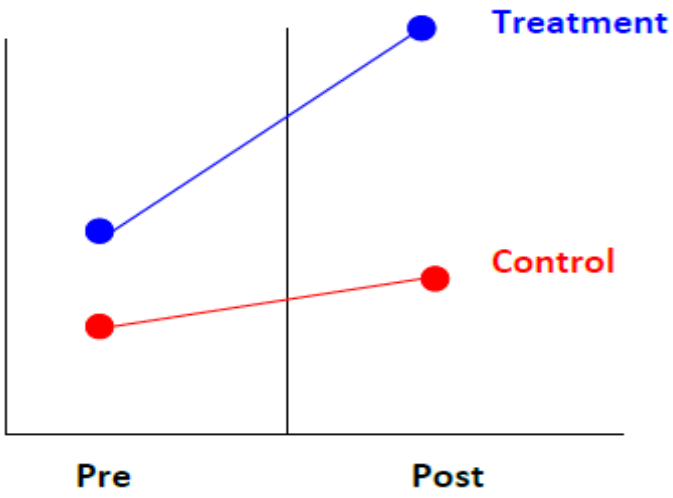
Non-experimental designs on the other hand only allow for assessment of outcomes on the intervention group only. This is done by carrying out a pre-intervention and post-intervention measurement of the outcomes of interest, which allows for the determination of changes in the

outcomes. The weakness in this design is that in as much as it is able to show any changes in the outcomes of interest, it is not able to attribute these changes to the project activities.

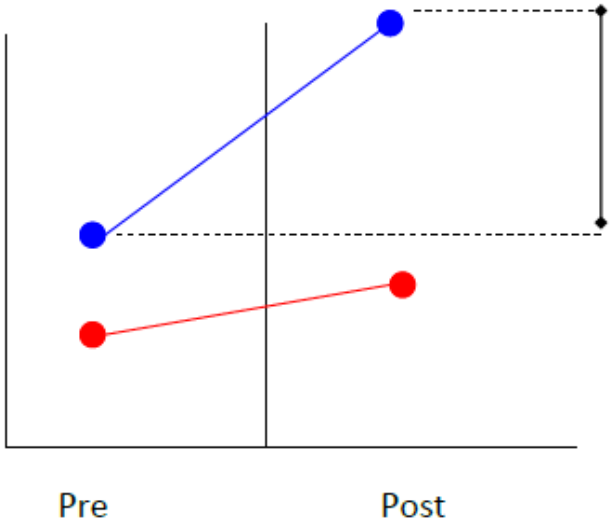
3.2.1 Difference in Differences Evaluation Method

The difference-in-differences evaluation method is a type of quasi-experimental design that not only enables the measurement of outcomes, but also provides the opportunity to determine whether the change in the outcomes measured are due to the project activities or other factors. The difference-in-difference estimator is the difference in average outcome in the treatment group before and after treatment, less the average outcome in the comparison group before and after treatment.

The figure below shows a pre and post intervention trend between the treatment and control groups. This is usually the situation in a quasi-experimental design.



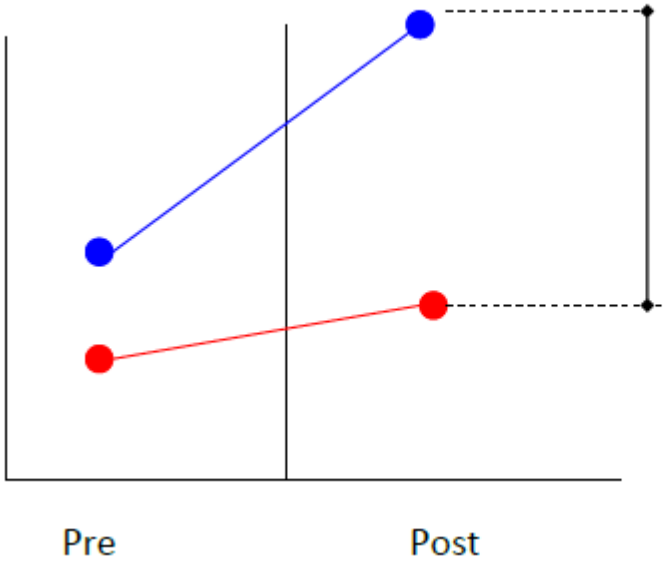
A non-experimental design would only take into account the difference in the outcome for the treatment group only, as shown below.



Effect of program using only pre- & post- data from T group (ignoring general time trend).

This may not bring out the true treatment effect of the project or program. The counterfactual question of what would have happened without the intervention is not tackled sufficiently.

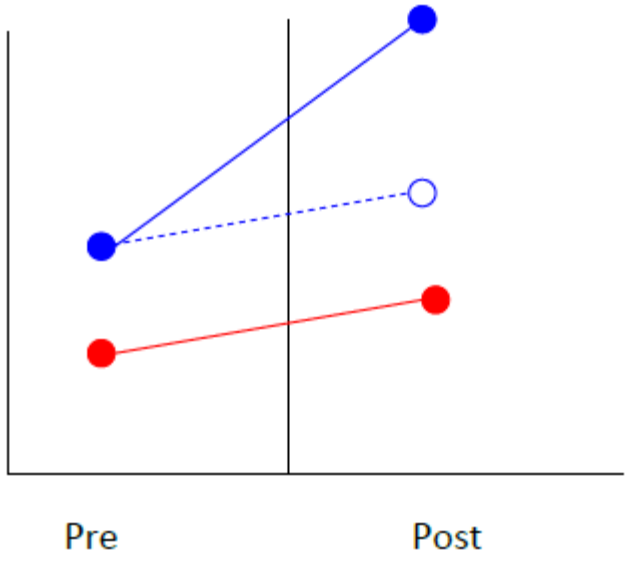
Another possible scenario would be to compare the post intervention outcome of interest between the treatment and comparison group as illustrated below, without considering the pre-existing differences between the treatment and comparison groups.



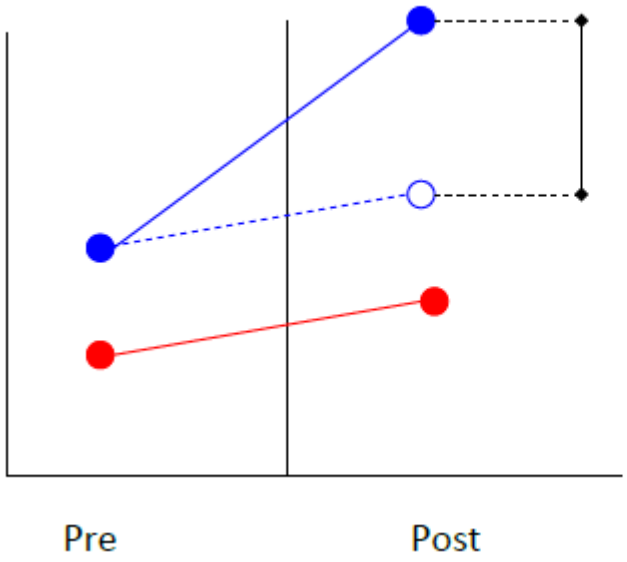
Effect of program using only T & C comparison from post-intervention (ignoring pre-existing differences between T & C groups).

This scenario would lead to overestimating the effect of the intervention, hence lead to inaccurate conclusions.

The parallel trend assumption in the difference-in-difference method of evaluation implies that what happens to the comparison group, is what would have happened to the treatment group, in the absence of the project. This is illustrated below with the dotted trend line.



Considering this assumption, the true effect of treatment would then take into account what the outcome would be in the absence of the intervention, as illustrated in the figure below.



Effect of program difference-in-difference (taking into account pre-existing differences between T & C and general time trend).

3.3 Sampling Design and Sample Size

The study used Differences-in-difference (DID) evaluation method to assess the effect of HIHEA's project on women empowerment (economic). The quasi-experimental evaluation method relied on data from treatment and comparison groups to estimate the impact of the project on the income of women entrepreneurs and their household. Simply, it compared the changes in income over time between the population which was enrolled for the intervention and the one that was not. At the beginning of the Swiss-Re project in September 2016, 16 self-help groups were mobilized and randomly assigned into 6 comparison groups and 10 treatment groups, as a pilot randomized controlled trial (RCT). The comparison groups did not receive any treatment from the project. Implementation of the project came to an end in September 2019, therefore, the study observed the data obtained within two time periods: the time before any of the groups received treatment (pre-treatment) and the time after the treatment group receives treatment (post-treatment).

For the purpose of this project, 4 comparison groups and 4 treatment groups were randomly sampled from each of the four implementation sub-counties. Out of these groups, 114 group members were randomly sampled, at 95 percent confidence level and 5 percent margin of error. This was based on the formula below:

$$\text{Sample size} = \frac{\frac{z^2 \times p\,(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p\,(1-p)}{e^2 N}\right)}$$

Where N = population size, e = margin of error, z = z-score and p = sample proportion

Notably, each individual assessed had two observations; pre-treatment and post-treatment. This technique was chosen for this study because relying only on a pre-post evaluation method in assessing outcomes may not bring out the true treatment effect on the outcome indicators of interest, thereby not answering the attribution question of the project, which is "What could have happened in the absence of the project?"

Monthly business income and household income were obtained from project beneficiaries and non-beneficiaries across the 4 sub-counties in Kitui that was the project's area of implementation, which were Kitui East, Kitui West, Kitui Rural and Kitui Central. Quantitative data was captured by administering structured questionnaires to a sample of the treatment and comparison groups. Comparative baseline data was obtained from the management information system (MIS). Qualitative data was incorporated in the analysis, from the implementation and field visit reports, documented during the project duration, as well as project design. These gave additional insights to the results of the quantitative data analysis.

3.4 Data Collection and Processing

Quantitative data collection was conducted with the help of 2 enumerators based in Kitui. The questionnaire was administered to the sampled respondents, by use of electronic data collection method which involved using a mobile phone (smart phone). The tool was scripted on KoBo Collect, a secure digital data collection platform. This made the data collection and processing easier. A pre-test was done prior to the actual data collection and necessary revisions made on the tool as found appropriate.

3.5 Data Analysis Method

The data obtained from the MIS system and structured individual questionnaires administered to a sample of the randomly selected treatment and comparison groups, was used to compute the difference-in-differences income data, which is the dependent variable. The mean business and household income for both treatment and comparison groups was computed for two time periods, pre-intervention and post-intervention. With these figures, using the DiD method, the mean business and household income that can be attributed to the intervention was calculated (dependent variable). This is illustrated below:

Table 1: Illustration of DiD estimate computation

	Treatment (T)	Comparison (C)	Difference
Pre intervention	Mean Income X1	Mean Income Y1	X1-Y1
Post intervention	Mean Income X0	Mean Income Y0	X0-Y0
Change	X0-X1	Y0-Y1	**(X0-X1)-(Y0-Y1)**

Source: Card and Krueger (1994), Minimum wage and Employment

The figure that resulted from the illustration above, (Y1-Y0) -(X1-X0), is the mean income that can be attributed to the intervention, and is therefore the true treatment effect, Card and Krueger (1994). A two-way ANOVA was conducted on the dependent variable, monthly business income, with fixed factors being Treatment and Comparison groups and the 4 different constituencies (sub-counties) that the project covered, namely: Kitui East, Kitui West, Kitui Central and Kitui Rural.

Using the Paired Samples T-test, the mean income difference in each group was determined, with 95 percent confidence level after treatment. An estimate of the effect size (the strength of the difference or the influence of independent variable) was also established using SPSS statistics, by dividing the absolute mean value with the standard deviation, thereby estimating the proportion in the mean difference that can be attributed to the project. Effect size of 0.8 (80 percent) and above is considered significant.

3.6 Ethical Consideration

This research was conducted within the standards of ethics approved by the University of Nairobi. The investigator included a consent clause in the structured questionnaires to ensure voluntary participation. Most importantly, information provided was treated with utmost confidentiality and anonymity. The participation of Kitui branch manager and field officers in providing information was voluntary.

CHAPTER FOUR: RESULTS OF THE WOMEN EMPOWERMENT OUTCOME ASSESSMENT

4.1 Introduction

This chapter presents the results of the study after Difference-In-Difference (DiD) computation, change in outcome of interest between treatment and comparison group before and after intervention, was done to the data collected. To determine the effect of the project on monthly earnings of the participants, the value of average earning was calculated and subjected to the difference-in-difference (DiD) evaluation method. The chapter also presents the findings on women economic empowerment by project implementation area, based on a Two-Way ANOVA test. The results for 4 sub-counties are then compared to determine any existing differences. The final results are then discussed. The analyzed data is presented using means, p-values, standard deviations, tables and graphs.

4.2 Response Rate

The study targeted 114 randomly sampled respondents, 57 from the treatment and 57 from the comparison groups. However, those respondents that were reachable were 112, 56 from each group, translating to 98 percent response rate. 86.6 percent of the respondents were female while 13.4 percent were male.

4.3 Status of Swiss-Re Cohort of Entrepreneurs Project

The implementation of the Swiss-Re Cohort of entrepreneurs project, which is the focus of the study, ended in September 2019. The objectives of the project as earlier mentioned were:

1. To mobilize and train 3,800 women (80 percent) and 760 men (20 percent)
2. To support the creation of 2,660 enterprises and 3,458 jobs, 30 percent being green enterprises and jobs
3. Increase the target beneficiaries' household income by up to 30 percent
4. Improve target beneficiaries' understanding and adoption of green business practices

The project is due for an end term evaluation, and has achieved the following results based on the objectives:

1. Mobilized 3,872 members (89 percent women and 11 percent men)
2. Supported the creation of 1,893 enterprises and 2,364 jobs, with 63 percent of enterprises being green and 50 percent of jobs being green.
3. 83 percent of recruited project beneficiaries had adopted at least one climate resilient practice.

4.4 The Impact of the Project on Monthly Earnings

In attempting to establish the true effect of the project on monthly earnings of the beneficiaries, the DiD value of average earnings in the two time periods, pre and post project, was calculated as shown in the table below. The DID estimate was found to be Ksh 88. This essentially means that the true effect of the project on the monthly income of beneficiaries is an increase of Ksh 88, which is a 5.6% (percent) increase in monthly earnings.

Table 2: Difference-in-differences estimate computation

	Treatment	Comparison	Difference
Pre	3,940	2,388	1,552
Post	10,916	9,276	1,640
Change	6,976	6,888	**88**

Source: Assessment of the outcomes of women empowerment program

The difference in the average monthly business income for the Treatment and Comparison groups at post HIH EA intervention period was computed on SPSS, and subjected to a paired sample T test to determine if there was a significant difference in the Treatment and Comparison means. The null hypothesis was that there is no difference between mean income for treatment and comparison groups.

Table 3: Paired samples test

		Mean	Std. Deviation	t	df	Sig. (2-tailed)
Pair 1	Treatment Average monthly income - Comparison Average monthly income	1639.286	11993.736	1.023	55	**.311**

Source: Assessment of the outcomes of women empowerment program

The paired samples statistics shows that Treatment group's mean monthly income is higher than that of the Comparison group by Ksh 1,639. This means that those who undergo the HIH EA training earned slightly higher than those who do not. However, the p-value is computed to be 0.311 thus we fail to reject the null hypothesis. This does not mean the difference in means is not statistically significant, but simply there is no sufficient evidence to conclude that the difference in means is statistically significant.

The effect size which is calculated by dividing the mean difference with the Standard deviation, gives the value of 0.137 (13.7 percent) which is relatively small, and was expected since we failed to reject the null hypothesis.

4.5 Influence of Project Implementation Site on Women Economic Empowerment

In attempting to establish whether the project implementation site has an influence in women economic empowerment, a two-way ANOVA was conducted on the dependent variable (income) with fixed factors being categories of respondents and sub-counties of implementation. This analysis was to measure the main effect of respondent category, main effect of sub-county of beneficiary and whether there is a significant interaction effect between the two. The question that is being answered is, "Does the effect of respondent category on monthly income vary, for the 4 different sub-counties of implementation?"

The profile plots in the two-way ANOVA reveal that there is an interaction and is likely to be significant since there is a mingling of the comparison and treatment lines as shown below. If the interactions weren't significant, the two lines would be running parallel. This means that how net

monthly business income changes with respect to project implementation site depends on the category of respondent, whether comparison or treatment group category, and vice versa.

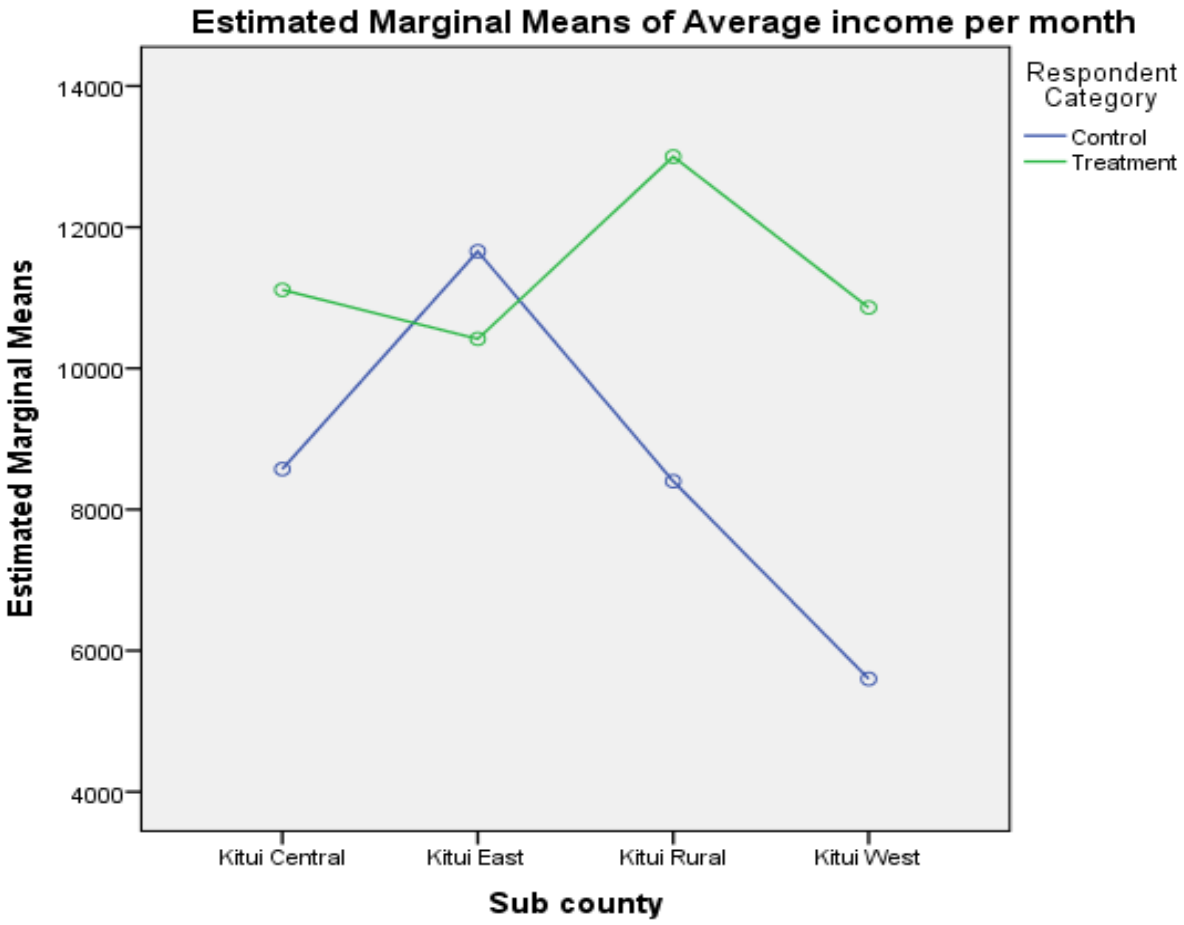


Figure 1: Profile plots

Source: Assessment of the outcomes of women empowerment program

The Test of Between-Subjects Effects reveal that the combined effect of respondent category and project implementation site (sub-county) on net monthly enterprise income is statistically the same (insignificant) with a P-value of 0.560 which is greater than 0.05, which means that there is no sufficient evidence to conclude that the effect on net monthly enterprise income is because of the combined influence of member category and project implementation site. The influence of the respondent category and sub-county is also not significant (statistically the same) with P-values of 0.261 and 0.712 respectively, which are greater than 0.05 significance level.

Table 4: Test of Between-Subjects effects

Source	df	F	Sig.	Partial Eta Squared
Corrected Model	7	.666	.701	.043
Intercept	1	64.969	.000	.385
RespCategory	1	1.277	.261	.012
Subcounty	3	.458	.712	.013
RespCategory * Sub county	3	.690	.560	.020

Source: Assessment of the outcomes of women empowerment program

The effect size of the interaction as shown by the partial Eta Squared is 0.02 (2 percent), which is relatively small hence the insignificant p-value. The effect size of respondent category and sub-county are even much smaller at 0.012 (1.2 percent) and 0.013 (1.3 percent) respectively.

In summary, the two-way ANOVA reveals that the mean monthly income for treatment group is greater than that of comparison group in all sub-counties except for Kitui East where comparison group earned more than the treatment group. Statistically, the interaction between respondent category and sub-county of operation on the monthly income is statistically the same with a p-value of 0.560 and partial eta squared (effect size) of 0.02 (2 percent) which was relatively very small.

4.6 Effectiveness of HIHEA's Intervention Logic in advancing Women Economic Empowerment

The effectiveness of Hand in Hand Eastern Africa's intervention logic is in doubt based on the findings of the study. It was established that only 17.7 percent change in monthly business income was registered when the difference in means was analysed, against a target of 30 percent. This implies the intervention did not achieve its target and therefore not effective.

4.7 Discussion

The findings show that the true effect of the project on women's economic empowerment is relatively small at only Ksh 88 (5.6 percent) per month. Thus this may not be statistically

significant. A paired samples T-test reveals a difference in means of Ksh 1,639.29. However, based on the p-value of 0.311, we fail to reject the null hypothesis and hence the difference in means is not statistically significant, at 95 percent confidence interval. The effect size of 0.137 is also very small, since it implies that only13.7 percent of variance in monthly income can be attributed to the HIH EA intervention. The two-way ANOVA also reveals an interaction between respondent category and sub-county (implementation site) on monthly income, though the interaction is statistically insignificant.

The research project set out to establish the level by which the four different project implementation areas could have impacted the variable of interest. This is tested by conducting the two-way ANOVA whose profile plots indicate an interaction. The monthly income for the treatment group is higher than that of comparison group by huge margins in 3 sub-counties namely: Kitui Rural, Kitui Central and Kitui West in that order. Surprisingly in Kitui East, comparison group respondents earned more than treatment group respondents. The operating environment in the four sub-counties was therefore very different and could have led to the variances in monthly income.

Based on the findings of the research project, it can be reported that HIH EA's intervention logic has an insignificant effect on women's economic empowerment, specifically increase in income, and therefore may not be effective as thought to be.

4.8 Limitations

This study had some limitations. The baseline data on income obtained from the management information system was originally captured in terms of intervals and not the actual estimates of average monthly income as reported by a project beneficiary or non-beneficiary, hence this could have led to the data not bringing out the true outcome thus rendered statistically insignificant. The method of collecting household income data could have also led to misrepresentation of the data, the project focused on the median value between the best and the worst gross monthly household income within a period of one (1) year. This is such a long time to confidently rely on the recall capabilities of a respondent hence may be inaccurate.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study focused on the assessment of past HiH programs, specifically in the method of evaluation employed in project assessments. The study employed difference-in-differences evaluation method to assess the outcomes of a women empowerment project in Kitui County, to determine the extent to which the project influenced select women empowerment outcomes, whether the project implementation site had an influence in women economic empowerment (net monthly enterprise income) and the effectiveness of HIHEA's intervention logic in advancing women economic empowerment as targeted. Quantitative data was collected through individual questionnaires administered to the sampled respondents. Electronic data collection method was employed, which involved using a smart phone with the KoBo data collection App installed. The individual questionnaire was scripted on KoBo Collect, a secure digital data collection platform.

This chapter gives the summary, major conclusions and recommendations of the study. The chapter also presents the areas for further research.

5.2 Summary

The overall objective of the study was to investigate the impact of HIHEA project on women's economic empower in Kitui Country, Kenya. Specifically, the study sought to determine the effect of the project on women economic empowerment, to determine whether the project area of implementation influences women economic empowerment, and to establish the effectiveness of HIHEA's intervention logic in advancing women economic empowerment.

In addressing these objectives, the study employed difference-in-difference (DiD) evaluation method on average monthly business income recorded, to assess the true effect of HIHEA's project on women empowerment (economic). A two-way ANOVA was also conducted on the average monthly business income (dependent variable), with fixed factors being Treatment and Comparison groups and the 4 different constituencies (sub-counties) that the project covered,

namely: Kitui East, Kitui West, Kitui Central and Kitui Rural. In addition, a paired samples T-test was employed to determine the mean income difference in each group, with 95 percent confidence level after treatment. An estimate of the effect size (the strength of the difference or the influence of independent variable) was also established using SPSS statistics, by dividing the absolute mean value with the standard deviation, thereby estimating the proportion in the mean difference that can be attributed to the project.

The DiD estimate was found to be Ksh 88 (5.6 percent). This essentially meant that the true effect of the project on the monthly income of beneficiaries was an increase by 5.6 percent. The paired samples statistics showed that Treatment group's mean monthly income is higher than that of the Comparison group by Ksh 1,639. This meant that those who undergo the HIH EA training earned slightly higher than those who do not. The effect size was estimated to be 0.137 (13.7 percent), which is relatively small. The two-way ANOVA established that the mean monthly income for treatment group is greater than that of comparison group in all sub-counties except for Kitui East where comparison group earned more than the treatment group. Statistically speaking, the combined influence of the respondent category and project implementation site (sub-county) on the net monthly enterprise income is insignificant (statistically the same) with a p-value of 0.560 and partial eta squared (effect size) of 0.02 (2 percent) which was relatively very small. Finally, only 17.7 percent change in monthly business income was registered when the difference in means was analysed, against the project target of 30 percent increase in monthly business income. This implies the intervention did not achieve its target and therefore may not be effective.

5.3 Conclusion

A significant true effect of the project on women's economic empowerment can be ascertained albeit with some changes in how income data is collected. The baseline monthly enterprise income data generated from the Management Information System was in terms of intervals, whereas whole figures were needed for the nature of data analysis planned to be conducted. This necessitated working with midpoint figures and might have been the reason for the insignificant

difference in net monthly enterprise earnings of treatment and comparison group respondents. It may be also that the intervention spilled over to the comparison group during implementation because the distance between the treatment and comparison groups was 3 kilometres apart. This may not have been far enough as it is quite difficult to restrict information flow, given the fact that the treatment and comparison groups knew each other. Thus the capacity building given to treatment groups could have reached the comparison groups, hence rendering the effect of the training insignificant.

The choice of project implementation site and the group of respondents, whether treatment or comparison group, jointly had an influence in the degree of increase in women's monthly net enterprise income. However, we are not able to report conclusively whether this influence is significant as there is insufficient evidence to warrant this conclusion. This could also have been contributed by the constant portfolio reshuffling of Business Relationship Officers (BRO) who were training the treatment groups. How one BRO trains is not the same as how another BRO would train, thus training quality is not standardized for the entire duration of the intervention. The compromised training quality could have led to the situation in Kitui East where the comparison group respondents reportedly earned more on average than the treatment group respondents.

Based on the study's findings, it can be concluded that the HIHEA intervention logic may not be as effective as thought to be. With the achievement of a 17.7 percent increase in monthly net enterprise income against a target of at least 30 percent at the project end, the intervention strategy may be lacking and a relook into the strategy is therefore warranted. The decision to randomly select comparison and treatment groups at the very beginning of the intervention could have worked against the intervention's objectives, since it was unethical to deny knowledge and the comparison group could have taken measures to seek the knowledge denied, leading to the under achievement of the increase in net monthly enterprise income.

5.4 Recommendations

The monthly net enterprise income data should be an actual estimate as opposed to an interval as currently captured in the Management Information System. This would facilitate proper data analysis and comparison during project assessments, which would go a long way in addressing the attribution question. In future programs, it would be advisable to go the clustering way in selecting treatment and comparison groups. Clustering could be done by sub-counties, such that a particular sub-county becomes the treatment group and another becomes the comparison group. It would be easy, though not definite, to restrict information flow on the training sessions given to treatment groups from spilling over to the comparison groups because of the administrative boundaries hence the groups may not know each other. This would serve to clearly bring out the significant effect of HIHEA's intervention on women economic empowerment.

The contextual elements that influence women economic empowerment should be further investigated, specifically the different types of operating environment in the four sub-counties of operation. This is necessary so as to understand whether such favourable conditions can be replicated elsewhere for a more positive impact. It is also important to maintain the training quality offered to treatment groups. This can be achieved by having one BRO train the treatment groups from the beginning of the project to the end. Thus the quality and standard of training would have a constant effect on women economic empowerment.

The conclusive determination of the effectiveness of HIHEA's intervention strategy, including further recommendations on the reworking of it, is dependent on the further assessment of objective number one (1) of the study. More evidence is needed to establish the true influence of HIHEA's intervention on women's monthly net enterprise income and the attributable proportion, so as to address any issues hindering its effectiveness that may arise. In addition, HIHEA could adopt the pipeline method of selecting a comparison group. The pipeline method involves selecting a comparison group from the list of target clients who are next in line for the intervention because they possess the same selection criteria sought in choosing them for the intervention. This method can also fit with the clustering method earlier recommended and work seamlessly to avoid going against ethical considerations of intentionally denying services, at the

same time enabling the proper analysis and assessment of the effect of capacity building on women economic empowerment.

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APPENDIX I: QUESTIONNAIRE

INDIVIDUAL QUESTIONNAIRE

Outcomes Assessment for Hand in Hand Eastern Africa & the Swiss Re Foundation Program

Please fill in the following data before you start the interview.

Group Name:_____ Group category: Treatment [ ] Comparison [ ] Sub county: _____
Date: _____

Opening Statement and Respondent Consent

Hello, my name is _____. You have been selected to take part in this survey as you are a beneficiary of the HIHEA and SWISS RE foundation project. The reason for this survey is to understand how the project has influenced change in income amongst women.

I request you to provide information as accurately as possible. Your participation in this survey is completely voluntary and all of your answers will be kept in the strictest confidence.

We expect the interview to last about 15 minutes. Do you agree to participate in the survey?

PARTICIPATATION STATUS	CODE	INSTRUCTION

Yes	1	CONTINUE
No	2	TERMINATE

PERSONAL PROFILE

No.	Questions and Filters			Instructions
A1.	Name of respondent	----------		
A2.	Telephone number	----------		
A3.	Date you joined the group			
A4.	Gender of the respondent (Interviewer to observe)?	○ Male ○ Female	1 2	
A5.	What is your marital status?	○ Single ○ Married ○ Widowed ○ Divorced ○ Separated ○ Others Specify……	1 2 3 4 5 6	
A6.	What is your highest level of education?	○ None/non-formal education ○ Primary incomplete ○ Primary complete ○ Primary plus technical training ○ Secondary incomplete ○ Secondary complete ○ Vocational training ○ University ○ Post Graduate	1 2 3 4 5 6 7 8 9	

A7.	How old are you?	○ 18-25 ○ 26-35 ○ 36-45 ○ 46-55 ○ Above 56	1 2 3 4 5	

AVERAGE MONTHLY INCOME

No.	Questions and Filters			Instructions
B1.	What income generating activities do you engage yourself in? ALLOW MULTIPLE	☐ No income ☐ Casual/daily wage labor ☐ Employment with salary ☐ Sale of crops ☐ Sale of livestock products ☐ Sale of fish ☐ Sale of fruits and vegetables ☐ Offer services e.g. bodaboda transport, barber, cobbler, beauty salon ☐ General shop ☐ Sale of second hand clothes ☐ Sale of green groceries ☐ Others	1 2 3 4 5 6 7 8 9 10 11	
B2.	What is your average income per month?	KES ######		Combines household direct incomes of all working/earning family members added together, including any wage, salary, cash obtained from services offered by the household members, e.g. selling products or crops
B3.	Gross Household Income in the best month in the past one year	KES ######		
B4.	Gross Household Income in the worst month in the past one year.	KES ######		

THANK THE RESPONDENT AND CLOSE THE INTERVIEW