

The Role of Rural Banks in Poverty Reduction among Women: Evidence from Sonzele Rural Bank, Ghana

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Abstract

Two-thirds of the world's poorest and vulnerable, mostly women, live in rural areas, engaging in subsistence agriculture. Hence, in Ghana, rural banking was introduced to provide micro-credit services to the marginalised neglected by commercial banks. One of such banks is the Sonzele Rural Bank in Jirapa was set up to offer credit services to improve the living condition, yet poverty in Jirapa is still high. This study, therefore, sought to investigate the role of rural banks in poverty reduction drawing evidence from the Sonzele Rural Bank in Jirapa. Using a cross-sectional design, the study employed structured interviews to collect data. The cluster sampling technique was used to select thirteen women's groups in Jirapa, and purposive sampling enabled the selection of four project staff. Paired-samples t-test and Kendall's coefficient of concordance were employed in the analysis. The study revealed that credit with education was given to women in groups which enabled them to set up various enterprises and experienced an increase in income and expenditure on education and health thus, reducing poverty in the area. Beneficiaries noted that the issues of high-interest charges, short repayment schedules and absence of insurance policy need attention to make credit a poverty reduction tool.

Keywords: Rural Bank, Poverty Reduction, Rural Women, Credit, Ghana.

Introduction

The growing phenomenon of poverty has become a development problem and has been an issue of concern to governments, international development agencies and Non-governmental Organisations all over the world. Eradication of extreme poverty was the core of the Millennium Development Goals (ended in 2015) and continues to be the fulcrum of the Sustainable Development Goals (ending in 2030) with the promotion of gender equality, women empowerment and eradication of extreme poverty which is widespread in rural areas particularly in sub-Saharan Africa as major concerns of these development programmes (see United Nations, 2014a; 2014b). This is because over two-thirds of the world's poorest people are in rural areas and are engaged in subsistence agriculture (Todaro & Smith, 2009).

All the regions across the world recorded a continuous decline in poverty levels over three decades, from 1981 to 2011 except sub-Saharan Africa (SSA) that rather recorded an increase in terms of the number of people living in poverty from 210 million in 1981 to 415 million in 2011 (Asitik, 2016; World Bank, 2015). The reason assigned for this "African tragedy" as described in a similar study earlier (Besley & Burgess, 2003), is that the region's population growth rate is higher than the poverty reduction rate (Asitik, Sharpley & Phelan, 2016). An earlier author indicated that in developing countries among the poor, rural women are the poorest and more vulnerable (Rao, 2006). Nwosu and Ndinda, (2018) and Ngwakwe (2020) observed in sub-Saharan Africa women are the most vulnerable in terms of extreme poverty. It is observed that in sub-Saharan Africa the rising number of single-parent women puts more economic and social burden on women than men (Hamplova & Hamplova, 2011; Ngwakwe, 2020). The literature revealed that in SSA and by large the developing world, most women earned their income from the agricultural sector that employs the majority of them (Doss, 2018; Bernard, Doss, Hidrobo, Hoel, & Kieran, 2020; Holmes & Busia, 2020). An earlier study indicates that women in Africa work for longer hours, especially in Ghana, more women than men work about 70 hours per week, contributing to about 60-80percent of the continent's agricultural labour (Todaro & Smith, 2009). Though women dominate the agricultural sector, they do not pull the policy strings but are rather the 'underdogs' in the sector due to gender bias toward productive resources (Asitik & Abu, 2020; also see Deere et al., 2013; Kilic et al., 2013; Peterman et al., 2010). For those living in poverty, livelihood strategies are usually diverse and complex (Rao, 2006). Evidence of this in developing countries is reflected by the provision of food security for households via diverse livelihood strategies by women.

The situation in Ghana is not promising in real terms as the Ghana Living Standards Survey round 7 (GLSS 7) revealed that the proportion of the population defined as poor based on the upper poverty line is 23.4 percent showing a decline of 0.8 percent between 2012/13 and 2016/17. However, in absolute terms, the number of poor people within the period increased to about 400,000, thus, confirming earlier claims that population growth is higher than the rate of poverty in SSA (Asitik, et al., 2016; GSS, 2018). Across Ghana, poverty is more endemic in the northern with the Upper West Region being the worst with a poverty rate above 70 percent (World Bank, 2020).

Earlier work of the Ghana Statistical Service which captured a broader dimension of poverty revealed that the average household expenditure in rural savannah in Ghana was 27 percent below the poverty line (GSS, 2012). Coulombe and Wodon (2007) also posit that the Savannah area of Ghana has been left behind in national poverty reduction. For instance, over twenty (20) years of economic development that implemented various programmes such as the Ghana Poverty Reduction Strategy I, Growth and Poverty Reduction Strategy II, and the Millennium Development Goals in Ghana have led to poverty reduction in the southern part of the country but no significant change in Northern Ghana, especially in rural areas (Asitik et al, 2016; World Bank, 2011). Furthermore, the report of the World Bank indicated that Upper West Region has the lowest population of 3.1 percent in the highest quintile and as high as 76.7 percent in the lowest quintile thus suggesting a high incidence of poverty in the region. In Ghana, it is the rural people, mostly women, who suffer more from poverty, and in the Upper West Region which is poverty endemic, means women bear more the consequences of poverty in the region (see Asitik, 2016).

Women contribute to economic development through their engagement in small and medium enterprises, their main source of employment, and a potential source of economic independence (Mazumder, Dastidar, & Bhandari, 2017) as more than 68 percent of women employed, are self-employed (GSS, 2018). Though women are less educated compared to males, they are making a significant contribution to domestic expenditure requirements, through income-generating activities. This has not been without problems, for example, many of them are unable to mobilise start-up capital for business and others are somewhat inexperienced or lack entrepreneurial skills and ideas.

One interventionist strategy by NGOs and government institutions is the facilitation of women's access to investment capital. However, the establishment and location of banks in the past have been concentrated in the urban areas to the neglect of most rural dwellers (Asitik, 2016). Hence, failure on the part of formal financial institutions

in mobilising locked up funds in the rural areas. In 1976, the government of Ghana, through the Bank of Ghana, established rural banks to channel credit to productive rural ventures and promote rural development since these areas were not serviced by the commercial banks (Obeng, 2008). This was to stimulate banking habits among rural dwellers, especially women and mobilise financial resources locked up in the rural areas into the banking system to facilitate development (Association of Rural Banks (ARB), 1992). Rural banks are owned by members of the rural communities through equity and are licensed to provide financial intermediation in the rural areas. Due to the growth in the government's interest in small borrowers and to extend banking services to the rural areas particularly, the cocoa-growing areas of the country, Ghana saw a rapid expansion of these banks in the 1980s. ARB was founded in 1981 as an NGO to strengthen and promote the concept of rural banking. However, poor financial management, weak supervision and natural calamities led to the deterioration of the financial viability of some of these rural banks (Steel & Andah, 2003).

The Sonzele Rural Bank was established on 24th November 1983 in the Jirapa District of the Upper West region. Its objective among other things is to provide credit resources to households and enterprises to undertake their economic activities. Prior to the establishment of the bank, sources of credit were from informal institutions such as money lenders, friends, relatives and sometimes 'susu collectors.' To alleviate poverty among women, the women's credit scheme began in 2007 to provide microfinance services to a considerable number of low-income persons to enable them to improve their welfare and enhance their living standards. The emphasis is on small and medium scale enterprises that have a high potential in generating significant employment. Women operate a major segment of trade and market enterprises in the informal sector, and they constitute a substantial number of the labour force in that sector (GSS, 2018; Tackie, 2004).

Despite the institutional and other wide range of support given to women to upscale their economic activities and reduce poverty, most of the women in Jirapa are poor and are unable to meet their gender needs satisfactorily and still engage in unprofitable ventures. For eradication of poverty and thus the development of Jirapa, there is the need to delve into problems that are faced by these women which makes it difficult for them to progress in their income generation drives successfully and their well-being at large. This calls for the need to assess the roles played by rural banks in poverty reduction among women drawing empirical evidence from the Sonzele Rural Bank in Jirapa. The rest of the paper is structured as follows; a review of previous studies, followed by the methodology, and then a discussion of results and conclusion, and recommendations.

Review of Previous Studies

Poverty is a complex and multidimensional phenomenon (World Bank, 1995) and is mostly defined in terms of income or consumption thus, material poverty, but is also an issue of capability deprivation and not only an economic issue (Asitik, 2016).

According to Todaro and Smith (2009), it occurs when people are unable to command sufficient resources to satisfy their basic needs. Overseas Development Institute (2005) is of the view that poverty is when a household's total consumption level falls below the level needed to attain a food consumption basket to satisfy the minimum subsistence level. Other dimensions of poverty according to Nelson and Agbey (2005) include income or consumption poverty, access to social services and participatory dimensions. Poverty in Ghana is more of a rural problem than urban, as rural Ghana contributes over 80 percent to the country's poverty incidence (GSS, 2018). Earlier studies did reveal that though poverty is predominantly rural, it is more evident in rural northern Ghana than in the South and Coastal areas as rural north alone contributes over 51 percent to the country's total poverty gap (Asitik et al., 2016; GSS, 2014). Hence, Asitik et al. (2016) concluded that policies and programmes over the years aimed at reducing poverty failed to address specific issues in rural northern Ghana, hence the pervasiveness of poverty in the area.

World Bank (2011) suggested that overcoming the poverty situation in northern Ghana requires targeting resources within the north. Enu-Kwesi, Koomson, and Baah-Mintah, (2013) believed that rural banks could play a key role in alleviating poverty through both financial and non-financial services which result in a positive change in income levels, output, and savings of beneficiary households. Women in sub-Saharan Africa are the poorest in the world (Hazel, 2010) and are not in the position to access financial services, especially credit from formal institutions due to their lack of acceptable collateral (Asongu, Nnanna, & Acha-Anyi, 2020). The low level of development of the financial sector in sub-Saharan Africa is a contributing factor to the problem of credit accessibility (Asongu, Nnanna, & Acha-Anyi, 2020; Asongu & Odhiambo, 2018; Tchamyou, Erreygers, & Cassimon, 2019).

Though credit accessibility is a problem in the developing world, women are the most disadvantaged compared to men (FAO, 2011; Tran et al., 2018). Contrary to this, Akudugu, Egyir and Mensah-Bonsu (2009) in measuring the growth rate of credit to male farmers and female farmers in the Upper East Region from 1998 to 2007, found that the women had a higher credit supply growth rate of 17 percent compared to the 15 percent credit supply rate to their male counterparts. Some researchers noted that financial institutions have labelled women as having a risk-averse attitude, operating

small and younger businesses, and attained lesser formal qualifications as compared to men and based on this discriminate against women in granting credit (Aterido Beck & Iacovone, 2013; Le, & Stefańczyk, 2018; Stefani & Vacca, 2015). The inability of the poor, vulnerable and women to access credit resulted in the development of microfinance to provide the necessary financial services to these categories who are unable to obtain such services from the formal financial sector (Uddin & Hossain, 2020).

Micro-credit services, therefore, received have the potential of raising the productivity of beneficiaries via access to investment capital. This is the position of Anderson et al. (2002) who maintain that microfinance allows entrepreneurs to invest towards the improvement of income. It is also an empowerment tool that unlocks rural potential and transforms the self-image of the poor (Akudugu, 2012), especially for females (Javed et al., 2006). Also, Waheed (2009) in studying the effect of micro-credit on income observed that micro-credit is a strong determinant of household income. Besides, Egyiri (2010) experience in Ghana with rural women and microfinance pointed out some prospective: microfinance improves women's social empowerment, as well as their leadership and interpersonal skills. In a broader perspective, Uddin and Hossain (2020) argued that microfinance has a positive effect on economic growth through the value creation of entrepreneurial ventures. However, the impact of microfinance on poverty reduction is the subject of debate. Some studies show positive effects (Khandker, 2006; Pitt & Khandker, 1998; Morduch, 1999; Khandker, 2005; Khan & Rahaman, 2007; UNCDF, 2009; Pronyk et al. 2007). Others such as Adams and Bartholomew (2010) found no impact while other studies revealed a negative impact (Adam & Von Pisch, 1992; Gulli, 1998). Yet, some authors also found a mixed situation of both positive and negative impacts on the poor and vulnerable (Angelucci, 2013; Ganle, Afriyie, & Segbefia, 2015; Van Rooyen, Stewart, & De Wet, 2012).

This mixed finding is an indication that the impact of microfinance is not universal, but unique in different context and depends on the socio-economic environment in which it is been executed (see Armendáriz & Morduch, 2005; Uddin & Hossain, 2020). Therefore, the outcome of this study will be a contribution to this debate in the literature from the perspective of rural women's credit system.

Adams and Bartholomew (2010) noted that they were not convinced that micro-credit could alleviate poverty. This is because their study on the subject matter revealed that the impact of micro-credit on the well-being of beneficiaries was marginal. Amin et al., (2001) drawing evidence from northern Bangladesh also indicated that

microcredit reaches the poor but not the vulnerable. Mallick (2002) believed that the transformations claimed by proponents of microcredit were exaggerated. His evaluation of the microcredit programme in Bangladesh revealed that the exclusion of some people from the programme breeds violence and class division among households.

Several possible explanations are often given for the weakness associated with the microfinance industry. For instance, rural entrepreneurs in Ghana have low awareness and usage levels of financing institutions (Abor & Biekpe, 2006). This suggests that information asymmetry still characterized the functioning of the industry. Gallardo (2001) assessment of Ghana's regulatory framework for microfinance pointed out several issues: financial institutions still serve a narrow range of clients and large proportions are left out. It is a common feature of the developing world to implement poverty alleviation programmes to motivate the electorate and win their favour during elections (Asitik, 2016). Such programmes breed division among households and thus do not yield the needed results. Mishra and Nayak (2004) support this opinion when they argue that when micro-credit programmes are politically motivated, they tend to benefit only wealthier people and party members. However, Arp, Ardisa, and Ardisa, (2017) argued that microfinance initiatives in the developing world have had a positive effect on the lives of low-income households. Therefore, drawing his experience from Ghana, Andah (2005) pointed out that the Bank of Ghana needs to continually observe the workings of the microfinance institutions to prevent abuse so that they could extend services to the rural poor.

The review of relevant literature on the effects of micro-credit provided by rural banks and other informal and semi-formal financial institutions on poverty alleviation presents mixed findings. While some present strong arguments in favour of the role of a financial institution in lowering rural poverty, the observation of others appears pessimistic. It must be noted that none of these studies was conducted in the Upper West Region of Ghana. This, therefore, brings to the fore the need to investigate the role of rural banks in poverty reduction particularly among poor and vulnerable women drawing empirical evidence from the Sonzele Rural Bank in the Upper West Region to determine whether the region is one of the areas where microfinance impacts positively on the poor, particularly women or not.

Methodology

Study design, sampling process, sample size and data collection methods

The study adopted the cross-sectional study design which enabled the collection of data concerning individual agents at a given point. The study made use of both primary and secondary data. Primary data involved grass root contacts in the form of interviews

with women beneficiaries to come out with relevant information on individuals as well as groups' perceptions on the access of credits and their impacts on poverty reduction. The staff of the bank and women beneficiaries from the services of the bank formed the population under study. The total size of the staff of the Sonzele Rural Bank was 23.

A purposive sampling technique was used to select four (4) staff (the manager, the credit officer, the credit supervisor, and the accountant) due to the knowledge and characteristics they possessed as far as this study is concerned. There are also 622 women benefiting from the micro-credit scheme. These women are made up of 25 women groups or associations in Jirapa. Out of the 622 women beneficiaries in the Jirapa community, 86 were sampled for the study with a 10 percent margin of error. The probability sampling technique was employed to give each woman beneficiary an equal chance of being selected to be part of the sample. Multi-stage sampling technique was employed. The first stage involved the treatment of each of the 25 groups as a cluster. The cluster sampling technique was subsequently adopted to select 13 women groups randomly from the 25 women groups. The second stage entailed the use of quota sampling technique to select 7 women each from 8 of the 13 groups selected in the first stage and 6 women from each of the remaining 5 groups or associations using simple random sampling technique.

The study adopted structured interviews and key informant interviews to solicit the views of women benefiting from the scheme and staff of the bank respectively. Interview schedules and guides were used to facilitate the collection of data. The research relied on group discussion in which beneficiaries' challenges with the credit scheme were assessed and ranked. Also, self-administered questionnaires were used to obtain data on the types and nature of credit and in-depth information on poverty reduction programmes from the institution. Secondary data were gathered on the operations of Sonzele Rural Bank micro-credit delivery policies as well as the socio-economic characteristics of women in the study area.

Methods of Data Analysis

Two separate hypotheses were tested using paired samples t-test. The objective was to test if an observed difference between two means (dependent samples such as a before and after test) is statistically significant. The average income levels and household expenditure (health care and children's education) levels of women beneficiaries before and after receiving the credit from the scheme were compared. The procedure for estimating the test values of t is specified as:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left(\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}\right)}} \sim t_{\left(\frac{\alpha}{2}, n-1\right)}$$

Where: \bar{X}_1 = mean value before joining the scheme

\bar{X}_2 = mean value after joining the scheme

n_1 and n_2 = sample size of respondents before and after joining the scheme respectively

S_1^2 and S_2^2 are sample variance before and after joining the scheme

Hypothesis 1

Ho: There is no difference in beneficiaries' income before and after they joined the scheme

H1: Income of beneficiaries has changed after joining the credit scheme

Hypothesis 2

Ho: There is no difference in the expenditure of beneficiaries before and after they joined the scheme.

H1: Beneficiaries' expenditure has changed after joining the credit scheme.

The decisions to reject the null hypotheses (if the t-test value is greater than its tabulated value) were taken at $\alpha/2$ level of significance with $n - 1$ degree of freedom.

The constraints of women in accessing credit from the bank were analysed. Women were asked to rank the challenges facing them according to the degree of difficulty. Their ranking results were analysed using Kendall's Coefficient of concordance test. Legendre (2005) indicates that Kendall's coefficient of concordance (W) is a measure of the agreement among several (p) judges who are assessing a given set of n objects. Kendall's coefficient of concordance test was used to test the hypothesis that there

exists no agreement among respondents on the ranking of challenges facing them. Kendall's coefficient of concordance (W) is specified as:

$$W = \frac{12 \left[\sum T^2 - (\sum T)^2 / n \right]}{nm^2(n^2 - 1)}$$

where: W = Kendall's coefficient

T= total rank score for each constraint

n = number of constraints

m = total number of respondents

Ho: there is no agreement among respondents on their ranking.

H1: there is agreement among respondents on their ranking of challenges facing them.

Kendall's coefficient (W) falls between 0 and 1; where 1 represents perfect agreement and 0 signifies perfect disagreement. The F-test was used to test the significance of Kendall's coefficient. This is specified as:

$$F - \text{ratio} = \frac{(m - 1)}{1 - w} w$$

The Degree of Freedom (DF) for the critical value of the F-critical value is stated as:

$$\begin{aligned} \text{DF (numerator)} &= \left\{ (n - 1) - \frac{2}{m} \right\} \\ \text{DF(denominator)} &= (m - 1) \left\{ (n - 1) - \frac{2}{m} \right\} \end{aligned}$$

The decision was to reject the null hypothesis if F-calculated is greater than the F-critical value.

Discussion of Results

Results of the survey reveal that 46 women groups in the Jirapa district have benefited from the credit scheme with 25 women groups currently benefiting from the scheme in Jirapa Township. In 2007 the Bank introduced credit with education for women. Credit with education provides a twofold program to the very poor, rural women: micro-credit and non-formal adult health education. Educational programmes are sometimes organized during group meetings where group members interact with their service providers.

The study revealed that Sonzele Rural Bank offers credit to households based on some requirements. Prominent among them include engagement in economic activity such as farming (rain-fed or irrigation), trading, pito brewing, hairdressing, dressmaking, shea butter extraction and dawadawa processing and weaving of traditional clothing. Besides, applicants must belong to a solidarity group of an average of fifteen (15) members in the same community and must have 10 percent of the amount applied for in their savings account with the bank. It was again revealed that the amount of credit given to each beneficiary ranges between GHS50.00 to GHS1000.00 and the average amount of loan granted to beneficiaries has been revealed to be GHS500.00. Even though they have leaders, loans are given to group members through credit officers during group meetings. The process has been revealed to be relatively simple, less bureaucratic and without any further collateral requirements as members' savings with the bank through the group, formation is used as collateral. This is likely to increase the accessibility of credit by the poor and may also lead to high repayment rates as a result of social pressure since the credit is given to beneficiaries in groups. The field survey indicates that all credit delivered to the groups is processed within the agreed period of one week after request by the members of the group.

The bank gives flexible terms of repayment with free advisory services. Loans granted to each beneficiary attract an interest of 13.5 percent per cycle of 16 weeks.

It was discovered from the study that only 3.5 percent of the women beneficiaries had other sources of livelihood besides their main sources of livelihood before joining the credit scheme while 96.5 percent had no sources of income before joining the scheme. However, after joining the scheme, 5 women representing 5.8 percent were found to depend on single sources of income and 81 women representing 94.2 percent were found to have other sources of income besides their main sources of income. This suggests that the group lending credit scheme from the bank has a positive effect on the income-generating capacity of the women through expansion and diversification of their sources of income. This can help improve the livelihoods of the women and their families and hence, reduce poverty. Table 1 shows the income levels of the women beneficiaries before and after joining the micro-credit scheme.

Table 1: Income of Women Beneficiaries before and after Joining Credit Scheme

Income	Observation	Minimum	Maximum	Mean
Income Before	86	100.00	61880.00	8370.09
Income After	86	360.00	72800.00	9289.17

The results from Table 1 reveal that the minimum and maximum annual incomes of beneficiaries before joining the credit scheme are GHS 100.00 and GHS 61880.00 respectively. On average, a woman before joining the scheme had an average annual income of GHS 8370.09. After joining the scheme, it was observed that the minimum annual income of the sampled beneficiaries became GHS 360.00 and a maximum of GHS 72800.00. The mean annual income after joining the scheme is GHS 9289.17. The difference in mean incomes before and after the programme intervention is GHS919.09. This suggests that beneficiaries’ income increased after joining the credit scheme. The bank can thus be seen as helping in the reduction of income poverty among women and their families.

The paired t-test was then used to test if this difference in the mean income of beneficiaries before and after joining the scheme was significant. The decision was to reject the null hypothesis if the t-test value is greater than the t-tabulated value. Results of the t-test are shown in Table 2.

Table 2: Paired-Samples T-Test of Women Beneficiaries Income before and after joining the scheme

					t	Df	Sig (2 tail)
Mean	Std. Dev.	Std. Error	95%CI				
919.09	4202.45	453.16	18.08	1820.10	-2.03	85	0.046

The test results from Table 2 show that the t-statistic is -2.028 with 85 degrees of freedom and a P-value of 0.023 which is statistically significant. This implies that there exists enough evidence to reject the null hypothesis of no significant difference in income before and after joining the scheme. In other words, there is enough evidence to support the claim that the beneficiary’s income increased after joining the credit scheme. This observation agrees with some empirical

studies such as Enu-Kwesi et al., (2013) and Anderson et al. (2002) who present optimistic arguments about the impact of micro-credit on income levels. They believe that micro-credit is an intervention that reduces poverty via an increase in beneficiaries' income. When given credit, the poor especially women can build their future and overcome poverty through income-generating activities and improved income. Evidence from the survey provides statistics on household expenditure before and after joining the credit scheme and this is shown in Table 3.

Table 3: Expenditure of Women Beneficiaries before and after Joining Credit Scheme

Income	Observation	Minimum	Maximum	Mean
Expenditure Before	86	0.00	2853.00	254.18
Expenditure After	86	0.00	6724.00	433.89

From Table 3, it can be observed that the average expenditure of beneficiary women before and after joining the credit scheme is GHS254.18 and GHS433.89 respectively. This represents an increase of GHS179.71. The mean difference of GHS179.71 implies that beneficiaries' expenditure increased after joining the credit scheme and therefore they are in a better position to provide at least the basic health and educational needs of their families. The mean difference confirms Bliss (2005) assertion that micro-credit loans are used to generate income, develop enterprises, and provide social services such as health and education for households leading to an improvement in their living conditions.

The paired t-test was then used to test if the difference in the mean expenditure of beneficiaries before and after joining the scheme is significant. The decision was to reject the null hypothesis if the t-test value is greater than the t-tabulated value. Results of the t-test are shown in Table 4.

Table 4: Paired-Samples T-Test of Women Beneficiaries Expenditure before and after joining the scheme

					t	Df	Sig (2 tail)
Mean	Std. Dev.	Std. Error	95%CI				
179.71	490.13	52.85	74.63	284.80	-3.40	85	0.001

The result of the paired sample t-test shows a t value of -3.400 with 85 degrees of freedom with a P-value of 0.001 which is highly significant. There is, therefore, enough evidence to reject the null hypothesis that beneficiaries' expenditure has not changed after joining the credit scheme. This suggests that there is enough evidence to support the claim that the beneficiary's expenditure has increased after joining the credit scheme. This finding support what was stressed by Fisher et al. (2002) that, micro-credit is a major tool of development, providing the poor with credit for income-generating activities that can help them work their way out of poverty. It is important to note that these results are relevant to the extent that our study is correlational and not an impact study. Hence, the results will have to be used with caution.

Table 5: Mean Ranks of Challenges Faced by Respondents

Challenges	Mean Ranks
High interest rate	1.81
Short repayment schedule	1.96
No insurance	2.23

In the ranking, a lower value is assigned to the most important factor; hence the challenge with the least mean rank is the most severe. The high interest rate on credit (with a mean rank of 1.81) was identified by beneficiaries as the most severe challenge, followed by a short repayment schedule (with a mean rank of 1.96) and lack of insurance on loans (with a mean rank of 2.23) emerged as the least severe challenge.

This supports the view presented by Obeng (2008) that the most alarming problem that borrowers face is the high interest rates or bank charges on loans. The ranking results were tested using Kendall's Coefficient of Concordance as presented in Table 6.

Table 6: Result of Kendall's Coefficient of Concordance Test

Observation	Kendall's W	Chi-square	d.f	Asymptotic. Sig.	Monte Carlo Sig.		
					Sig	95% CI	
86	0.046	7.98	2	0.018	0.35	0.00	0.074

From Table 6, the value of Kendall's coefficient (W) is 4.46 percent with a chi-square value of 7.98. The value of W is significant at 5 percent. This suggests that there is about 4.46 percent agreement among respondents in ranking the challenges they face in accessing micro-credit. Kendall's coefficient (W) of 0.046 which approaches zero supports Legendre (2004) view that if $W = 0$, there is no overall trend of agreement among the respondents and the responses may be regarded as essentially random.

According to credit officers of the bank, the loan given out to the women attracts a simple interest rate of 13.5 percent. This means when a beneficiary is given GHS 100 at a simple interest of 13.5 percent, the beneficiary will end up paying GHS 13.50 as interest. However, the women could not tell how much they pay as interest. About 53 (62%) women were satisfied with the interest rate as compared to 33 (38percent) women who said the interest rate was high. The officers also indicated that mode of repayment spans four months (16 weeks). In respect this, the beneficiaries complained that the repayment period is too short for them to fulfil their weekly obligation. This situation becomes more intense, especially during poor market conditions. The purpose of credit insurance is that, if the policyholder losses their job, becomes disabled, dies or is somehow unable to make payment then the holder does not have to default on the credit.

The data analysis from responses of the officers also revealed that there is no insurance policy on the credit scheme, so beneficiaries (group members) are compelled to pay loans of defaulting and dead member(s) on behalf of the entire group to qualify for a future loan. This implies that the absence of loan insurance tends to affect women's livelihoods negatively as well as their ability to access credit.

Due to the age of the data (collected in 2012), a follow-up was made in 2022 to ascertain if there are any changes in the loan requirements and disbursement modalities that may render the results of the study irrelevant. The engagement with the staff of the Sonzele Rural Bank revealed that no significant changes have taken place regarding the modalities involved in the disbursement of loans such as the interest rate on loans, modalities of group formation, use of group solidarity as collateral among others. The bank officials indicated that the intervention is ongoing and the requirements are still the same. Appraising the intervention, the officials of the bank noted that the intervention has resulted in poverty reduction, improved access to health and education and improved income of beneficiaries. Unfortunately, it was difficult to contact beneficiaries to verify the bank officials' claims. Officials from the bank also indicated that the recovery rate of loans granted is a hundred percent due to effective appraisal of groups, training, continuous monitoring and evaluation of intervention. They further indicated that the provision of group loans to women is currently ongoing without insurance cover to reduce risk of group members.

Conclusions and Recommendations

The Sonzele Rural Bank has been set up to offer micro-credit services to rural households. Several women groups have been accessing credit from the Bank. This implies that the Bank has not neglected women and poor households who need

investment capital. The Bank also gives education to beneficiaries to ensure the appropriate use of borrowed funds. The fact that beneficiaries' households observed an increase in income and expenditure on health and education implies that rural banks such as the Sonzele Rural Bank play a significant role in poverty reduction among women. It was however discovered that the Sonzele Rural Bank still has some setbacks that need attention. These include high interest charges, short repayment schedules and uninsured loans.

It is therefore recommended that calculations of the interest paid needs to be explained to the beneficiaries to get them convinced that they are not cheated. This appears important since beneficiaries of the services of rural banks are mostly illiterate. It is also recommended that any policy that aims at influencing poor households' access to micro-credit from rural banks should include ways of addressing repayment schedules and granting beneficiaries insurance since they are the main challenges facing women in accessing micro-credit.

Limitations of the Study

Though follow-up at the bank shows that nothing has changed regarding the requirements and modalities of disbursement, the data used for the study is dated as we were not able to follow up on loan beneficiaries to confirm the claim of the bank officials or otherwise. However, it is our believe that the findings that have emanated from the study could be relevant for policy.

Also, limiting the analysis to a correlational study is a limitation as we could have applied other models to enhance quality and possibly indicate causation and impact. These limitations of the study are pointers to future research that could cover more rural banks in the Upper West Region and make use of a more robust model that will determine impacts and not only correlation.

References

- Abor, J. & Biekpe, N. (2006). Small Business Financing Initiatives in Ghana. *Problems and Perspectives in Management*, 4(3), 69-77.
- Adams, S., & Bartholomew, T. A. (2010). The Impact of Microfinance on Maize Farmers in Nkoranza (Brong Ahafo Region of Ghana). *Journal of Management Research*, 2(2), 1-13.
- Adam, D.W., & Von Pischke, J. D. (1992). Microenterprise credit programmes. *Deja vu World Development* 20(10), 1463-1470.

- Akudugu, M. A. (2012). Estimation of the Determinants of Credit Demand by Farmers and Supply by Rural Banks in Ghana's Upper East Region. *Asian Journal of Agriculture and Rural Development*, 2(2), 189-200.
- Akudugu, M.A., Egyir, I.S., & Mensah-Bonsu, A. (2009). Access to Rural Bank Credit in Ghana: The Case of Women Farmers in the Upper East Region of Ghana, *Ghana Journal of Development Studies*, 6(2),
- Amin, S., Rai, A. S., & Topa, G. (2003). Does microcredit reach the poor and vulnerable? Evidence from northern Bangladesh. *Journal of Development Economics*, 70(1), 59-82.
- Andah, D. O. (2005). Regulation, Supervision and Access to Microfinance: The case of Ghana. *Essays on Regulation and Supervision*, No. 10, Accra: The Microfinance Institutions Network.
- Anderson, C. L., Locker, L. & Nugent, R. (2002). Microcredit, Social capital, and Common Pool Resources. *World Development*, 30(1), 95-105.
- Angelucci, M., Karlan, D., & Zinman, J. (2013). Win some lose some? Evidence from a randomized microcredit program placement experiment by Compartamos Banco (No. w19119). National Bureau of Economic Research.
- Armendáriz, B., & Morduch, J. (2005). *The Economics of Microfinance*. MIT Press: Cambridge, MA.
- Arp, F., Ardisa, A., & Ardisa, A. (2017). Microfinance for poverty alleviation: Do transnational initiatives overlook fundamental questions of competition and intermediation? *Transnational Corporations*, 24(3), 103-117.
- Arthur-Holmes, F., & Busia, K. A. (2020). Household dynamics and the bargaining power of women in artisanal and small-scale mining in sub-Saharan Africa: A Ghanaian case study. *Resources Policy*, 69, 101884.
- Asitik, A. J. (2016). *Entrepreneurship: A means to poverty reduction in rural northern Ghana? A PhD thesis submitted to the School of Management, University of Central Lancashire, United Kingdom.*
- Asitik, A. J., & Abu, B. M. (2020). Women empowerment in agriculture and food security in Savannah Accelerated Development Authority zone of Ghana. *African Journal of Economic and Management Studies*, 11(2), 253-270.
- Asitik, A. J., Sharpley, R., & Phelan, C. (2016). Establishing the link between entrepreneurship, built capital and poverty reduction in rural northern Ghana. *International Journal of Arts & Sciences*, 9(2), 493-508.

- Asongu, S. A., Nnanna, J., & Acha-Anyi, P. N. (2020). Inequality and gender economic inclusion: the moderating role of financial access in Sub-Saharan Africa. *Economic Analysis and Policy*, 65, 173-185.
- Asongu, S. A., & Odhiambo, N. M. (2018). ICT, financial access and gender inclusion in the formal economic sector: evidence from Africa. *African Finance Journal*, 20(2), 45-65.
- Association of Rural Banks (1992). "Annual Reports" Unpublished Report on File at the Association of Rural Banks. The Bank of Ghana Accra, Ghana.
- Aterido, R., Beck, T., & Iacovone, L. (2013). Access to finance in Sub-Saharan Africa: Is there a gender gap? *World Development*, 47, 102–120. DOI: 10.1016/j.worlddev.2013.02.013
- Bernard, T., Doss, C., Hidrobo, M., Hoel, J., & Kieran, C. (2020). Ask me why: Patterns of intrahousehold decision-making. *World Development*, 125(104671). Doi: 10.1016/j.worlddev.2019.104671
- Besley, T., & Burgess, R. (2003). Halving global poverty. *Journal of economic perspectives*, 17(3), 3-22.
- Bliss S (2005). Micro-Credit: Small Loans-Big Dreams. *Geography Bulletin* 23(1), 9-28.
- Coulombe, H., & Wodon, Q. (2007, May). Poverty, livelihoods, and access to basic services in Ghana. In *Ghana CEM: Meeting the challenge of accelerated and shared growth* (pp. 1-86).
- Deere, C. D., Oduro, A. D., Swaminathan, H., & Doss, C. (2013). Property rights and the gender distribution of wealth in Ecuador, Ghana and India. *The Journal of Economic Inequality*, 11(2), 249-265.
- Doss, C. R. (2018). Women and agricultural productivity: Reframing the Issues. *Development Policy Review*, 36(1), 35-50.
- Egyir, I. S. (2010). Rural Women and Microfinance in Ghana: Challenges and Prospects. In 2010 AAAE Third Conference/AEASA 48th Conference, September 19-23, 2010, Cape Town, South Africa (No. 95782). African Association of Agricultural Economists (AAAE).
- Enu-Kwesi, F., Koomson, F., & Baah-Mintah, R. (2013). The contribution of the Kakum Rural Bank to poverty reduction in the Komenda-Edina-Eguafo-Abrem Municipality in the Central Region, Ghana. *Economic Annals*, 58(197), 121-139.
- Fisher T, Sriram MS (2002): *Beyond Micro-Credit: Putting Development Back into Micro-Finance*. New Delhi: Vistaar Publication.

- Gallardo, J. (2001). A Framework for Regulating Microfinance Institutions: The Experience in Ghana and the Philippines. World Bank Policy Research Working Paper, (2755).
- Ganle, J. K., Afriyie, K., and Segbefia, A. Y. (2015). Microcredit: Empowerment and Disempowerment of Rural Women in Ghana. *World Development*, 66, 335-345.
- Ghana Statistical Service (2000). Ghana Living Standards Survey Report, Ghana Statistical Services, Accra, Ghana
- Ghana Statistical Service (2018). Poverty Trends in Ghana. Ghana Living Standards Survey Round Seven (2005 – 2017). Accra, GSS.
- Gulli, H (1998). *Microfinance and Poverty: Questioning the Conventional Wisdom*. New York: Inter-American Development Bank.
- Hazel, M., (2010). "Poverty among Women in Sub-Saharan Africa: A Review of Selected Issues", *Journal of International Women's Studies*, 11(4), 50-72.
- Hamplova, S. & Hamplova, D. (2011) *Single Motherhood in Sub-Saharan Africa: A Life Course Perspective*. Concept paper, Department of Sociology, McGill University. Available at <https://paa2011.princeton.edu/papers/112136>. Accessed on 12/03/2021.
- Javed, A., Luqman, M., Khan, A. S. & Farah, A. A. (2006) Impact of Micro-credit Scheme of NRSP on the Socio-economic Conditions of Female Community in District Rawalakot, Azad Jamu and Kashmir, Pakistan. *Journal of Agriculture & Social Sciences*, 2(3), 142-44.
- Khan, M. A., & Rahaman, M. A. (2007). Impacts of Microfinance on Living Standards, Empowerment, and Poverty Alleviation and Poor People: A Case Study on Microfinance in the Chittagong District of Bangladesh. <http://www.essays.se>
- Khandker, S. R. (2005). Microfinance and poverty: Evidence using panel data from Bangladesh. *The world bank economic review*, 19(2), 263-286.
- Khandker, S. R (2006). Microfinance and Poverty: Evidence Using Panel Data from Bangladesh, *World Bank Economic Review*, 19(2), 263-286.
- Kilic, T., Palacios-Lopez, A., & Goldstein, M. (2015). Caught in a productivity trap: A distributional perspective on gender differences in Malawian agriculture. *World Development*, 70, 416-463.
- Le, L. H., & Stefańczyk, J. K. (2018). Gender discrimination in access to credit: are women-led SMEs rejected more than men-led? *Gender, Technology and Development*, 22(2), 145-163.

- Legendre, P (2005). Species Associations: "The Kendall Coefficient of Concordance Revisited." *Journal of Agricultural, Biological, and Environmental Statistics*, 10(2), 226–245.
- Mallick, R. (2002). Implementing and Evaluating Microcredit in Bangladesh. *Development in Practice*, 12(2), 153-163.
- Mazumder, R., Dastidar, S., & Bhandari, A. K. (2017). Access to credit and micro-entrepreneurship: A gender comparison. In C. Neogi, A. K. Bhandari, & S. Ghosh (Eds.), *Women's entrepreneurship and microfinance* (Vol. 1, Chap. 11, pp. 191-210). Singapore: Springer.
- Mishra, B. & Nayak (2004). Limits of Micro Credit for Rural Development: A cursory Look. In J.K. Gogoi (Ed.). *Rural Indebtedness in North East India (185-200)*. Dibrugarh University, Assam.
- Morduch, J. (1999). The microfinance promises. *Journal of Economic Literature*, 37, 1569-1614.
- Nelson, W. & Agbey, S. N. D. (2005). Linkages between poverty and climate change: adaptation for the livelihood of the poor in Ghana. Technical Paper, 71.
- Ngwakwe, C. C. (2020). Gender equality and extreme poverty alleviation in Sub-Saharan Africa. *Demography and social economy*, 4(42), 56 – 68.
- Nwosu, C. O., & Ndinda, C. (2018). Female household headship and poverty in South Africa: an employment-based analysis. *Economic Research Southern Africa*, 3(71), 1-26.
- Obeng, S. K (2008). Rural banking in Ghana; Its impact on rural farmers (A case study of Abokobi rural area) Sanvin's Research and Consultancy Unit. P, 4.
- Overseas Development Institute (2005). *Economic Growth in Northern Ghana*. Accra: Centre for Policy Analysis (CEPA).
- Peterman, A., Quisumbing, A., Behrman, J., & Nkonya, E. (2011). Understanding the complexities surrounding gender differences in agricultural productivity in Nigeria and Uganda. *Journal of Development Studies*, 47(10), 1482-1509.
- Pitt, M. M., & Khandker, S. R. (1998). The impact of group-based credit programs on poor households in Bangladesh: Does the gender of participants matter? *Journal of political economy*, 106(5), 958-996.
- Pronyk, P., Hargreaves, J., & Murdoch, J. (2007). Microfinance Programmes and Better Health: Prospects for Sub Saharan Africa. *Journal of American Medical Association*, 29(16), 1925-1927.

- Rao, P. G., (2006). *Rural Development Sustainable Livelihood and Security*. New Delhi; Authorspress.
- Steel, W. F. & Andah, D. O. (2003): *Rural and Micro Finance Regulation in Ghana: Implications for Development and Performance of the Industry, African Region Working Paper Series, No. 49*, Washington DC: World Bank.
- Stefani, M. L., & Vacca, V. (2015). Small firms' credit access in the Euro Area: Does gender matter? *Cesifo Economic Studies*, 61(1), 165–201. doi:10.1093/CESifo/ifuo31
- Tackie, A. M. (2004, August). Ghana country paper on gender poverty reduction and enterprise development. In a workshop on strategy for West Africa on gender, poverty reduction and enterprise development at Akosombo.
- Tchamyou, V.S., Erreygers, G., & Cassimon, D., (2019). "Inequality, ICT and Financial Access in Africa", *Technological Forecasting and Social Change*, 139, 169-184.
- Todaro, M. P. & Smith, S. C. (2009). *Economic Development (10th edn)*, Pearson Education Ltd, Harlow: England.
- Tran, T. K. V., Elahi, E., Zhang, L., Abid, M., Pham, Q. T., & Tran, T. D. (2018). Gender differences in formal credit approaches: rural households in Vietnam. *Asian-Pacific Economic Literature*, 32(1), 131-138.
- Uddin, M. H., & Hossain, A. (2020). Impact of Microfinance on Poverty Alleviation: A Study in the Southern Part of Bangladesh. *Asian Business Review*, 10(2), 81-86.
- United Nations (2014a). *Millennium Development Goal 2014 report. Assessing the progress in Africa towards the Millennium Development Goals. Analysis of the Common African Position on the post – 2015 Development Agenda*. Addis Ababa: ECA Document Publishing Unit.
- United Nations (2014b). *The road to dignity by 2030: ending poverty, transforming all lives and protecting the planet: Synthesis report of the Secretary-general on the post – 2015 sustainable development agenda*. Available at: http://www.un.org/ga/search/view_doc.asp?symbol=A/69/700&Lang=E (Accessed on 08th December 2020).
- United Nations Capital Development Fund [UNCDF]. (2009). *Enabling Poor Rural People to Overcome Poverty in Ghana*. United Nations, New York.
- Van Rooyen, C., Stewart, R., & De Wet, T. (2012). The impact of microfinance in sub-Saharan Africa: a systematic review of the evidence. *World Development*, 40(11), 2249-2262.
- Waheed, S. (2009). Does rural micro-credit improve well-being of borrowers in Punjab (Pakistan)? *Pakistan Economic and Social Review*, 47(1), 31-47.

World Bank (1995). Ghana Poverty: Past, Present and Future. Population and Human Resources Division, West-Central Africa Department, Africa Region.

World Bank (2011). Republic of Ghana Tackling Poverty in Northern Ghana. Report No. 53991-GH. PREM 4/AFTAR Africa Region.

World Bank. (2015). Sub-Saharan Africa. https://doi.org/10.1596/978-1-4648-0483-0_ch2_SSA

World Bank (2020). Ghana Poverty Assessment. Washington DC, Work Bank.