Livelihood Diversification and Poverty Among Rural Households in the Capricorn District, Limpopo, South Africa

Maja T[1], B Oluwatayo I[1],

[1]University of Limpopo

Corresponding author email: Majatumiso072@gmail.com

Abstract:

Livelihood diversification has become the backbone for many of the households in rural areas of South Africa and it is perceived as a strategy to cope with the growing population and the rapidly increasing poverty rate. A sizeable number of rural households in South Africa combine two or more jobs to generate more income as possible to enhance their poverty status. Therefore this study was conducted to examine the nexus between poverty and diversification of livelihoods and to ascertain whether the different livelihood diversification strategies engaged in make rural households better-off or worse-off in the study area. A multi-stage and simple random sampling technique was employed to collect data from a sample of 216 respondents. Analytical techniques employed were descriptive statistics, FGT poverty index and the probit regression model. Eight variables were included as explanatory variables in the probit regression and only five variables (gender of the household head, marital status of the household head, years of formal education, household size and member of association) were found to be significant at 10%, 5%, 1%, 1% and 1% respectively. Based on the findings, the study recommends that diversification of livelihood strategies needs to be strengthened among rural household, investment in formal and vocational training should be intensified to increase rural household's participation in more viable livelihood options in the study area.

Keywords: Diversification, Livelihood opportunities, Poverty, Rural households, South Africa

#40

Livelihood Diversification and Poverty among Rural Households in Capricorn District Limpopo Province, South Africa

Abstract

Livelihood diversification has become the backbone for many of the households in rural areas of South Africa and it is perceived as a strategy to cope with the growing population and the rapidly increasing poverty rate. A sizeable number of rural households in South Africa combine two or more jobs to generate more income as possible to enhance their poverty status. Therefore this study was conducted to examine the nexus between poverty and diversification of livelihoods and to ascertain whether the different livelihood diversification strategies engaged in make rural households better-off or worse-off in the study area. A multi-stage and simple random sampling technique was employed to collect data from a sample of 216 respondents. Analytical techniques employed were descriptive statistics, FGT poverty index and the probit regression model. Eight variables were included as explanatory variables in the probit regression and only five variables (gender of the household head, marital status of the household head, years of formal education, household size and member of association) were found to be significant at 10%, 5%, 1%, 1% and 1% respectively. Based on the findings, the study recommends that diversification of livelihood strategies needs to be strengthened among rural household, investment in formal and vocational training should be intensified to increase rural household's participation in more viable livelihood options in the study area.

Keywords: Diversification, Livelihood opportunities, Poverty, Rural households, South Africa

Introduction

Livelihood diversification in South Africa has become a norm for most of the rural households, as a strategy to cope with the growing population and the rate at which poverty is rising among the households (Munhenga, 2014). Households diversify their livelihoods as a means of satisfying their basic needs and also to achieve the livelihood objectives in the long run. Hussein and Nelson (1998) describes livelihood as systematic enterprises undertaken by individuals using their capabilities and available opportunities to derive financial rewards. Diversification is perceived as a means of enhancing the performance of food production which will lead to an increase in rural households' income and lower the prices of food in the market (Ellis *et al,* 2003). Furthermore, Ellis (2007) defines livelihood diversification as the process by which rural households' construct diverse portfolio of activities and social support capabilities in order to survive and to improve their standard of living.

The South African economy is dominated by the informal sector which normally operates in rural and urban areas (Ndulo, 2013). Activities in the informal sector are too broad namely; smallholder farming and non-farming activities. Most individuals engaged in the informal sector are from rural areas and are affected by their lack of skills (Source). However, South Africa is not the only country depending on activities of the informal sector for survival because a number of developing countries face the same misfortunes. According to Assan (2014), livelihood diversification activities have become an important income generating strategy for rural farm households throughout the developing world. Although these are found to account for only a part of the total income of rural small farm household, the diversified non-farm sector has gained importance for rural household economies. While on the issue of livelihood diversification, it is important to also take into consideration the aspect of poverty dynamics. Livelihood diversification is mostly concerned with generating income and ensures that among other things, individuals are food secure and sustainable at household level.

Poverty as defined by May (1996) is the inability to attain minimal standard of living, measured in terms of basic consumption needs or income required to satisfy them. Poverty has many dimensions, among which low consumption is the main indicator, linked to others such as malnutrition, illiteracy, low life expectancy, food insecurity, powerlessness and low self-esteem (IFAD, 2001). Poverty is also linked to unfulfilled

capabilities due to asset deprivation (land, markets, information, credit, etc.), inability to afford decent health and education, and lack of power. In the South African context, it's correct to argue that poverty bears the face of a black person and that this particular black person is a woman and her children inherit her destitution thus being trapped in a vicious cycle of poverty with no end in sight (StatSA, 2017). Poverty results in separation from the community, food insecurity, crowded homes, usage of unsafe and inefficient forms of energy, lack of adequately paid and secure jobs, and fragmentation of the family (Mathebula et al, 2005). According to StatSA (2017) over 55 percent of the South African population is living in poverty and unfortunately it confirms what has long been played out in our society and policies due to a linear understanding of development which is often very economic based and exclusionary of social and cultural factors. Majority of black South Africans who are currently active in the job market earn minimum wage and they are still living below the poverty line.

Problem Statement

According to Mehta (2009), a household is referred to as a multi-activity unit which is made up of individuals and the activities pursued by them. Most of the individuals residing in the Capricorn district are found in the rural areas and majority are known to diversify their livelihoods as a means of generating income for their households (Source). Livelihood diversification by rural households is used as a strategy to cope with increasing rate of poverty, growing population and other socioeconomic issues affecting them. The poverty of a household is related to its resource endowments, its capacity to manage and deploy its resources (Hossain, 2005).

The unemployment rate in South Africa increased to 27.7% in the first quarter of 2017 from 26.5% in the previous period. It is the highest unemployment rate since the first quarter of 2004 as the unemployment increased rapidly than the employment rate (Taborda, 2017). Rural households are then confronted with continuously increasing food prices and even though the effect will not be felt immediately, the household heads would then have to continue to find other means so as to sustain their livelihood (Fisher, 2017). Majority of the non-farm activities which individuals from rural households engage in are found to be in the informal sector and this is due to the increasing rate of unemployment. According to McLaughlin (1990), the informal sector consists of small-scale, self-employed activities (with or without hired workers), with the primary objective of

generating employment and incomes. Seshamani (1990) adds to this definition by stating that this sector is comprised of all those activities which generate incomes that are unrecorded in the formal accounts of the national economy.

Aim

The aim of this study is to examine the nexus between poverty and diversification of livelihoods and to show whether the different livelihood diversification strategies engaged in make rural households better-off or worse-off in the Capricorn district, Limpopo Province, South Africa.

Literature Review

Livelihood is defined as systematic enterprises undertaken by individuals using their capabilities and available opportunities to derive financial rewards, (Hussein and Nelson, 1998). Ellis (2000) viewed livelihood as a combination of assets that include human, natural, physical, social and financial capital, the activities and the access to these assets and activities that together govern or map the type of living gained by an individual or a household.

Barret et al (2001) defined diversification as a norm and further explained that very few people collect all their income from only one source, hold all their wealth in the form of any single asset or use their assets in just one activity. Diversification patterns reflect individuals' voluntary exchange and their allocation of assets across various activities so as to achieve an optimal balance between expected returns and risk exposure conditional on the constraints they face (Barret et al, 2001). According to Hussein and Nelson (1998), the focus on livelihood diversification necessarily implies a process—a broadening of income and livelihood strategies away from purely crop and livestock production towards both farm and non-farm activities that are undertaken to generate additional income through the production of other agricultural and non-agricultural goods and services, the sale of waged labour or self-employment in small enterprises. Although diversification is concerned with broadening household income, the motive to diversify might not be clear as to whether households diversify for survival or accumulation of wealth more especially the middle income and high income households.

In South Africa, rural poverty and chronic deprivation may be partly endorsed to the poor endowment in natural resources of former homeland areas. Poverty as defined by May

(1996) is the inability to attain minimal standard of living, measured in terms of basic consumption needs or income required to satisfy them.

The changing socioeconomic, political, environmental and climatic atmosphere in Nigeria and other developing countries across the globe has continued to aggravate especially those living in the rural areas. It has been established that in many rural areas, agriculture alone does not provide sufficient livelihood opportunities hence diversification into non-farm activities is seen as a form of self-insurance. This is because diversification offers people options for coping with crisis. The accompanying increase in poverty levels has led residents of these economies to device a number of strategies to cushion the negative effects of these changes and as a result rural households diversify their income sources by combining two or more jobs (multiple job holding) to enhance consumption smoothing and acquire other basic needs (Oluwatayo, 2009).

Ellis and Freeman (2005) indicated that rather than promoting specialisation within existing portfolios, upgrading them to boost income would be more realistic and relevant for poverty reduction. Ellis (2000) pointed out that an increase in off-farm or non-farm wage rates, or greater opportunities to undertake remunerative non-farm self-employment would increase the motive to diversify. Therefore taking advantage of these off-farm opportunities could offer a pathway out of poverty for the rural poor households (Barrett, et al. 2001). Mompati and Jacobs (2009) identified three sources from which the rural households obtain their food and these are the market, subsistence production and transfers from public programmes or other households.

Street trading was found to be one of the major strategy for diversification and it refers to providing goods and services on the streets or small stalls in exchange of financial gains. In South Africa, street trading has become an important source of income as most rural households engage in it. Alternatively, informal traders can also be defined as people who conduct informal street trading on a small scale, mostly from street pavements, and who, as a group offer a large variety of products and basic services to prospective clients (Willemse, 2011). The majority of street traders in South Africa are black women who trade in a range of goods including sweets, knick knacks, cigarettes, clothing, and most prominently in fruit and vegetables (often produced by someone else). Despite its relatively modest appearance, street trading is one of the largest sectors of the informal economy (Ndulo, 2013).

In countries with high rates of population growth or urbanization, the informal sector inclines to absorb most of the growing labour force in the rural areas, therefore posing a challenge to policy-makers with regard to issues such as, improvement of the working conditions and legal and social protection of the persons employed in the informal sector, increasing the productivity of informal sector activities, training and skills development (Hussmanns and Mehran, 1993). Informal businesses contributed 5 percent to South Africa's GDP, with the sector itself growing in recent years (StatSA, 2014). The informal sector employed about 1.5 million out of a total of 15 million labour force (nationwide) and according to StatSA (2014), the informal sector was dominated by men who accounted to 55 percent. The contribution of the informal sector to the GDP of South Africa then increased for 5.25 percent between 2013 and 2015 and more of the labour force was employed (StatSA, 2014b).

Other than providing employment for the rural households, the informal sector also improves the food security at household level in rural areas. However, as much as the informal sector employs most people from rural areas, it however discriminates against women. According to Skinner (2016), the informal sector is a declining source of employment for women. In the third quarter of 2016, 970 000 women were recorded to be in the informal sector, constituting 37 percent of total informal sector employment from 45 percent in the first quarter of 2008.

Effects of Livelihoods Diversification

Ellis (1999) discussed diversification and outlined its sustainability importance on rural livelihoods and how it improves its long run resilience to adverse trends or sudden shocks. In this respect, individual and family livelihoods display similarities to larger social and economic groupings up to the level of the economy at large. In general, increased diversity promotes greater flexibility because it allows more possibilities for substitution between opportunities that are in decline and those that are expanding (Ellis, 1999).

Seasonality is one of the essential features of rural livelihoods noted by Chambers et al, (1981). In economic terms, seasonality means that returns to labour time i.e. income that can be earned per day or week worked vary during the year in both on-farm and off-farm labour markets (Ellis, 2000). Ellis (1998) noted a problem of food insecurity caused by a gap resulting from peaks and troughs in labour utilisation on the farm, uneven farm

income streams and continuous consumption and indicated that diversification can contribute to reducing the adverse effects, by utilising labour and generating alternative sources of income in off-peak periods.

Diversification is a primary means by which many individuals reduce risk (Ellis, 1999). Asset and livelihood diversification have important consumption smoothing, risk management and productive functions (Doward et al, 2001). Factors like climate that create risk for one income source should not be the same as those that create risk for another (Ellis, 1999). Diversification also reduces the risks of malnutrition and chronic poverty in the low income households.

Higher income could alone reduce risk by making better use of available resources and skills (as in seasonality above), and taking advantage of spatially dispersed income earning opportunities (Ellis, 1999). Households that have higher- medium income are able to diversify in more favourable environments than the low income a household, which however continues to make the low income households vulnerable to poverty fluctuations.

Also it is possible for diversification to improve the independent income-generating capabilities of women as well as improve the care and nutritional status of children since a high proportion of cash income in the hands of women tends to be spent on family welfare (Munhenga, 2014). For this to occur, activities need to be promoted in the rural areas that are accessible to women, which implies that such activities have to be located close to sites of residence and corresponding with types of work to which women have equal or better access qualifications than men (Ellis, 1999).

On the other hand, diversification can be associated with widening inequalities between the incomes of the rural poor and the better-off. This occurs, as noted already, because the better-off are able to diversify in more advantageous labour markets than the poor, and this in turn reflects asset poverty especially with respect to human capital (Ellis, 1999). Some types of diversification may result in unproductivity on the home farm. This typically occurs when there are resilient distant labour markets for male labour, resulting in depletion of the labour force required to undertake peak farm production demands such as land preparation and harvesting (Munhenga, 2014). This occurred in southern Africa in the 1970s and 1980s, where many rural households came to depend on remittances from migrants to urban areas in South Africa for their food security (Ellis, 1999).

On the other hand, diversification could have adverse gender effects on agriculture. Where it is male labour that is predominantly able to take advantage of diversification opportunities, then women may be even more downgraded to the domestic sphere and to subsistence food production (Ellis, 1998). In general, the positive effects of diversification appear to outweigh its disadvantages (Ellis, 2000). The positive effects tend to be beneficial impacts of wide applicability (e.g. risk reduction, mitigating seasonality), while the negative effects typically occur when labour markets happen to work in particular ways in particular places. The removal of constraints from expansion of opportunities for diversification is therefore desirable policy objectives because they give individuals and households more options to improve livelihood security and to raise their own living standards (Ellis, 1999).

Research Methodology

Study area

The study was conducted in Capricorn district of Limpopo province. There are four local municipalities within the district, namely; Blouberg local municipality, Polokwane local municipality, Lepelle-Nkumpi local municipality and Molomole local municipality. The district is named after the Tropic of Capricorn which runs through it. The seat of Capricorn is Polokwane and majority of its 1 154 673 people speak Northern Sotho (National Census, 2017). The district is situated as a stopover between Gauteng and the northern areas of Limpopo, and between the north-western areas and the Kruger National Park. It forms a gateway to Botswana, Zimbabwe and Mozambique. The district has an international airport, and is linked to Gauteng by one of the best stretches of the N1road in South Africa. It has the third-largest district economy in the province, and is predominantly rural in nature. The main economic sectors found in the district are community services (30.9%), finance (27.6%), trade (14%), transport (13.2%), manufacturing (4.3%), construction (3.3%), agriculture (3.1%), and electricity (2.9%), (StatSA, 2015).

Data Sources and Sampling Technique

Primary data was collected from a sample of 216 rural households using structured questionnaires and interviews. A multi-stage and the simple random sampling techniques were employed to select 11 villages from the municipalities. This was used in such a way

that in the first stage, one district was selected from the five districts in the province which is the Capricorn district. At the second stage all the four local municipalities from the Capricorn district were selected and at the third stage 11 villages were randomly selected from the local municipalities and the last stage involved selection of respondents based on probability proportionate to size.

Analytical Techniques

The study employed descriptive statistics, FGT poverty index and probit regression model. Descriptive statistics was used to analyse the socioeconomic, livelihood diversification sources and challenges faced by rural households in the Capricorn district. The FGT poverty index was used to examine the poverty status and lastly the probit regression was used to examine the nexus between livelihood diversification and poverty in the study area.

FGT poverty index general formula:

$$\boldsymbol{P\alpha} = \frac{1}{n} \Sigma_{i=1}^{q} \left(\frac{z-y}{z}\right)^{\alpha}$$

Where,

$P\alpha$ = weighted poverty index

α = FGT index and takes on the values of 0, 1 and 2.

If α = 0, then FGT measures the incidence of poverty

If α = 1, then FGT measures the depth of poverty

If α = 2, then FGT measures the severity of poverty

i= lowest income

Z= the poverty line

Y= expenditure of the household

Z – Y = the poverty gap

n=total population

q= number of people who are poor

Probit Regression model general formula:

$$Y^*=\beta_0+\beta_1x_1+\cdots+\beta_nx_n+U_t$$

Where:

Y^*=It's a binary response which takes two values i.e. 1 and 0

x_n= explanatory variable

β_0= intercept

β_n= estimated parameters

U_t= is the disturbance term

Table 1: Description of the variables in the model

Variables	Description of variables	Unit of measurements
Dependent: **Poverty status** **Independent variables**	1- Poor, 0- Not poor	Dummy
X_1= **Gender**	1- Male, 0- Female	Dummy
X_2= **Age**	Age of the household head	Years
X_3= **Marital status**	1- Married,0-Otherwise	Dummy
X_4=**Years of formal education**	The years spent in school	Years
X_5=**Household size**	The individuals in each household	Actual number
X_6= **Primary Occupation**	1-Farming,0-Non-farming	Dummy
X_7= **Work experience**	Years of work	Years
X_8= **Income**	Monthly Income of household	Rands
X_{10}= **Received assistance from government**	1-Yes, 0-otherwise	Dummy
X_{11}= **Membership of association**	1-Yes ,0- otherwise	Dummy
X_{12}= **Access to formal credit**	1-Yes ,0- otherwise	Dummy
X_{13}= **Livelihood Diversification**	1- Yes, 0-otherwise	Dummy

Results and Discussion

Table 2 shows the distribution of socioeconomic characteristics of respondents by gender that engage in various activities to alleviate poverty in their households. Out of a total of 216 households, 111 were found to be females whilst 105 are males. Therefore it was found that most men generate income from various sources than women. The percentage of men and women who were found to be poor is 12.4 percent and 26.1 percent respectively and the percentage of men and women who are well-off is 87.6 percent and 73.9 percent respectively. This also indicates that men go an extra mile to provide for their households. This is in line with the study conducted by Oluwatayo (2009) showing that men participate more in livelihood diversification.

The marital status of the respondents revealed that 6.5 percent of the respondents who were married and poor were found to be and 48.6 percent were found to be better-off. The respondents found to be single and poor were found to be 9.3 percent and 23.6 percent was found to be better-off. The respondents found to be divorced and poor were found to be 0.5 percent and 3.3 percent was found to be better-off. Lastly the respondents found to be widowed and poor were found to be 3.2 percent and 5.1 percent were not poor. The finding in the study of Munhenga (2014) supports the assumption that married respondents have more income coming into their homes. This might be true especially if both the wife and husband are working. Respondents that are single are poorer that all other poor households (Iiyama *et al*, 2008). This might be because they have a lot of expenses but have no one to share the cost with. Also, majority of them still take care of their parents and siblings which make it even difficult to have savings.

The educational level distribution of respondents revealed that 4.2 percent have primary education, 29 percent have secondary education, 14.4 percent have ABET education and 33.3 percent have tertiary education. Majority of the respondents with secondary education diversify their income followed by the respondents with tertiary education. Those with tertiary education are more likely to be employed by the government than those with primary education and also their vast knowledge still allow them to have an upper hand even in the informal working environment (Barett *et al*, 2001). The distribution also revealed that a sizeable number of all the respondents are not educated and this could possibly impact their poverty status (Ellis, 1999).

Respondents who are young, active and poor were found to account for 13.4 percent and 66.7 percent were better-off, while the respondents who are in their pension phase and are poor were found to be 6.1 percent and 13.9 percent was found to be better-off. This revealed that majority of the respondents that are engaged in various activities to increase income and alleviate poverty in their households are in their active phase and some are able to find better ways of surviving even if the price of food items continue to increase in the market. The findings of Oluwatayo (2009) also indicated people who engage most in livelihood activities are still relatively young.

Households which consist of less than 7 members and are poor constitute 19 percent and those that are not poor accounted for 78.2 percent. Also households with family members that are between 8 and 14 and poor were found to be 0.5 percent and those that are not poor made up 2.3 percent. The average household size was found to be 5 which indicated that the more family members a household has, the need to increase their income to alleviate poverty will also be high.

Table 2: Socioeconomic variables of the respondents

Variable	Poor	Not-Poor
Gender		
Male	13 (12.4)	92 (87.6)
Female	29 (26.1)	82 (73.9)
Marital Status		
Married	14 (6.5)	105 (48.6)
Single	20 (9.3)	51 (23.6)
Divorced	1 (0.5)	7 (3.3)
Widow	7 (3.3)	11 (5.1)
Level of Education		
Primary	8 (3.7)	9 (4.2)
Secondary	17 (7.8)	63 (29)
ABET	8 (3.7)	31 (14.4)
Tertiary	9 (4.2)	72 (33.3)
Household Size		
<7	41 (19)	169 (78.2)
8-14	1 (0.5)	5 (2.3)
Age		
20-49	29 (13.4)	144 (66.7)
50-75	13 (6)	30 (13.9)

Source: Authors' computation from survey data

Table 3 shows the summary statistics of respondents' socioeconomic characteristics. The average age of the respondents was found to be 41 years which indicates that a

sizeable number of the respondents are still in their active and working age. The average years spent in school by respondents was found to be 12.77. The assumption here would be that majority of the household heads in Capricorn district had secondary education since the years one spent to complete secondary school are up 12 years and 13 if an individual repeats a grade. The work experience (years) of respondents revealed that the average years of occupation are 8.4 and the average income earned is R4158.22. This implies that even if majority of the household heads were to have different income sources they would still rely on an income that is less R5000 per month regardless of how many members are in a household. Lastly, the average expenses spent on basic items such as electricity, education and groceries among other things is R2743.82, according to the marginal propensity to save; households don't spend all their income on consumption, they save a portion of it.

Table 3: Summary statistics of the respondents' socioeconomic variables

Variables	Min	Max	Mean	Std deviation
Income	1500	60000	4158.22	4392.66
Expense	780	36400	2743.82	2640.00
Age	22	73	41	11.03
Years spent in school	1	20	12.77	2.23
Experience	0	30	8.4	5.55
HHS	1	14	5	1.50

Source: Authors' computation from survey data

The results below (table 4) show the poverty status of the respondents' using the FGT poverty index in the Capricorn district. The results show that on the basis of gender, females which constitute 26.1 percent are poorer than males constituting 12.4 percent living below the poverty line (R1832.45 per month) generated for the study area. This implies that men are less vulnerable to poverty and are able to source more opportunities to generate financial rewards than women who are more likely to be taking care of their families instead of working. StatSA (2017) reported that in South Africa poverty bears the face of black women who are constantly trapped in the cycles

of poverty. Therefore, if the poverty rate continues to increase most female-headed households are more likely to suffer.

Table 4: Poverty Status' Distribution of Respondents by Gender

Gender	Frequency	Poor	Percentage	Non- Poor	Percentage
Male	105	13	12.4	92	87.6
	111	29	26.1	82	73.9
Total	216	42		174	

Source: Authors' computation from survey data

Table 5 shows the effect of livelihood diversification on poverty. The study employed the probit model to examine the nexus between poverty and livelihood diversification among rural households (depicted in Table 5). A number of factors considered to be possible correlates of poverty among the rural households in the study area were analyzed and the results showed that the coefficients of gender, marital status, and years spent in formal education, household size and member of association were significant factors. The results of the analysis are further discussed below:

The gender of respondents was found to be significant at 10 percent and this indicates that gender influences the poverty status of respondents. Since the FGT results revealed that 26.1 percent of women are poor than men at 12.4 percent, it implies men have more livelihood sources than women. Ellis (1999) argued that it is possible for diversification to improve the independent income-generating capabilities of women and in so doing, also improve the care and nutritional status of children since a high proportion of cash income in the hands of women tends to be spent on family welfare.

The marital status of the rural households was found to be significant at 5 percent. This reveals that respondents that are married and have both partners working and earning an income have greater chances of improving their poverty status than those that are not married and depending on a single income. Munhenga (2014) stated that marital status of the household head is an important determinant that has to be assessed on households' choices of livelihood strategies. The descriptive results on the marital status variable (48.6 percent) also show that majority of the married households are not poor when compared with other respondents which are not married. The years of formal education was found to be significance at 1 percent. This

implies that if a respondent has a tertiary education, the opportunities to find more sources of livelihood to alleviate poverty in their household are greater compared to households that have spent a few years in school. Oluwatayo (2009) also found the years of formal education as a significant factor in his study of "Gender analysis of livelihood patterns". Descriptive results also revealed that households with few years of education are poorer than those with more yeas of education. The household size was found to be significant at 1 percent which implies that households with more family members are able to generate more income and alleviate poverty than those with less family members. The findings of this study is in line with the studies conducted by Oluwatayo (2009) and Munhenga (2014), altogether large household size may lead to low income per capita.

Lastly, being a member of an association showed significance at 1 percent. When respondents are members of different association, their opportunities to improve their poverty status are greater than those who are not members of any association. Variables that were found not to be significant are age of the household, primary occupation and experience.

Table 5: Probit regression results of the nexus between poverty and livelihood diversification status of respondents.

Variables	Standardized coefficient
Gender (X_1)	-0.378*
	(0.240)
Age (X_2)	-0.002
	(0.014)
Marital Status (X_3)	-0.521**
	(0.229)
Years of formal education (X_4)	-0.155***
	(0.045)
Household size (X_5)	-0.208***
	(0.082)
Primary occupation (X_6)	-0.058
	(0.266)

Experience (X₇)	-0.019
	(-0.252)
Member of association (X₈)	-1.110***
	(0.455)
Constant	2.864
	(1.039)

Source: Authors' computation from survey data   Log-likelihood= -82.431

***=1% significance, **= 5% significance, *= 10% significance

Standard errors are in parenthesis

Table 6 shows the distribution of livelihood sources by gender. It takes into consideration different livelihood activities engaged in by respondents and their respective percentage to determine which gender is dominant in which activity. The results revealed that men are dominant in farming as their primary occupation, civil servant occupation, taxi operator (driver) and other in livelihood sources which account for 51.1 percent, 26.7 percent, 21.9 percent and 10.0 percent respectively. The results indicate that men dominant sectors (occupations) that require masculine strength. The table also revealed that women dominate in the following livelihood activities, street vendor, school cook and domestic work 19.8 percent, 17.1 percent and 7.3 percent respectively. Women dominate occupations which require less masculine strength and they are also part of their daily routine in their households.

Table 6: Respondents' distribution of livelihood sources by gender

Livelihood sources	Male	Female
1. Farming	54 (51.4)	56 (50.4)
2. Civil Servant	28 (26.7)	25 (22.5)
3. Domestic work	7 (6.7)	8 (7.3)
4. School cook	0	19 (17.1)
5. Taxi driver	23 (21.9)	0
6. Street vendor	10 (9.5)	22 (19.8)
7. Fast food	12 (11.4)	12 (10.8)
8. Other(s)	34 (10.5)	30 (27.2)

Source: Authors' computation from survey data

Table 7 shows the respondents distribution of livelihood sources by poverty status. The results revealed that respondents that engaged in farming, civil servant occupation, taxi driving and other occupations are more likely to be better-off when compared to respondents who engage in domestic work, school cook, street vendor and fast-food outlets whose poverty status is deteriorating.

Table 7: Respondents' distribution of livelihood sources by poverty status

Activities	Poor	Not-poor
1. Farming	20 (9.3)	90 (41.7)
2. Civil servant	5 (2.3)	48 (22.2)
3. Domestic work	4 (1.9)	11 (5.1)
4. School cook	8 (3.7)	11 (5.1)
5. Taxi driver	1 (0.5)	22 (10.2)
6. Street vendor	14 (6.5)	18 (8.3)
7. Fast food	4 (1.9)	13 (6.0)
8. Other	5 (2.4)	47 (21.7)

Source: Authors' computation from survey data

Table 8 shows the distribution of challenges faced by respondents. The results revealed that 8.79 percent of the population was dependent on a single income and were poor. It also revealed that a larger proportion of the population was also dependent on a single income but was well-off. The table also revealed that there are more men than women who are dependent on a single income in the study area. With regards to female-headed households, 3.70 percent was found to be poor and 11.11 percent was found to be better-off.

The results also revealed that poor child-headed households accounted up to 3.70 percent. According to Mturi (2012), it was reported that orphans were absorbed by members of the extended family but recently this safety net longer worked so well and many children were left to fend for themselves. The results also showed that there are more male child-headed households than female child-headed households. However, the child-headed households which are well-off in the population made up 13.88 percent. With regards to the results, we can the assume that children in this criteria which are the households heads have been absorbed by extended family members and

had the privileged to receive an educational background and are therefore able to find better sources to improve their poverty status. Lastly table 6 showed that women have a lower household income than men. It also showed that 8.79 percent of the population that has a lower income was poor and those with a low income but well-off account up to 40.74 percent. This indicates that these households that are well-off were able to sustain their livelihood with their income.

Table 8: Challenges Distribution of Respondent by Gender and Poverty Status

Challenges	Gender		Poverty status			
	Male	Female	Poor	%	Non-poor	%
1. Dependent on single income	61	27	19	8.79	69	31.9
2. Female-headed household	0	32	8	3.70	24	11.1
3. Child-headed household	18	20	8	3.70	30	13.9
4. Low income	47	60	19	8.79	88	40.7

Source: Authors' computation from survey data

Conclusion and Recommendations

The multi-stage and simple random sampling techniques were employed to collect data from a sample size of 216 rural households using a structured questionnaire. The research questions for this study were well address using the descriptive statistics, FGT poverty index and the probit regression model.

After a thorough investigation, the study has found that majority of the rural households in the Capricorn district that diversify their livelihood sources are non-poor and those that are poor rely on a single income. Livelihood diversification is a common strategy to alleviate poverty in rural households in the Capricorn district. The study also found that females are more poor than males and although most of the rural households rely on more than one income source, there are still some challenges which they are still facing that make a certain portion of the population vulnerable to poverty fluctuation rate.

18

Recommendations

Based on the findings, the study recommends that:

- Diversification of livelihood strategies needs to be strengthened in rural Capricorn district. These households should acquire more training and awareness on how they can venture into, run businesses and engage in better income generating livelihood activities to cope with economic constraints in the study area.
- Investment in formal and vocational training should be intensified to increase rural households' participation in more viable livelihood options in the study area.
- Stokvels and cooperatives are important and popular awareness for building up savings and enhance the living conditions. Rural households' could come together to form cooperatives to enhance risk strategies and influence government policies.

References

Assan JK, (2014). Livelihood diversification and sustainability of rural non-farm enterprise in Ghana. *Journal of Management and Sustainability 4(4),* pp.1-14

Barrett CB, Reardon T, and Webb P, (2001). Nonfarm income diversification and household livelihood strategies in rural Africa: Concepts, dynamics, and policy implications. Cornell University, Ithaca, USA, pp.315-331

Chambers R, Longhurst R and Pacey A, (1981). Seasonal Dimensions to Rural Poverty, London, Frances Pinter, pp. 218-236

Doward A, Anderson S, Clark S, Keane B and Moguel J, (2001). Contributed Paper to EAAE Seminar on Livelihoods and Rural Poverty. Asset Functions and Livelihood Strategies: A framework for Pro-Poor Analysis, Policy and Practice. Mexico, pp. 1-16

Ellis F, (1998). Household strategies and rural livelihood diversification, *Journal of Development Studies 35(1),* pp. 1–38

Ellis F, (1999). Rural Livelihood Diversity in Developing Countries: Evidence and Policy Implications. Overseas Development Institute, Number 40, February 1999, http://www.odi.org.uk/index.html

Ellis F, (2000). The Determinants of Rural Livelihood Diversification in Developing Countries. *Journal of Agricultural Economics.* 51(2): 289-302.

Ellis F and Bahiigwa G, (2003). Livelihoods and rural poverty reduction in Uganda. *World Development 31(6),* pp. 999

Ellis F and Freeman HA (2005). Rural Livelihoods and Poverty Reduction Policies. Routledge: London and New York, pp.284

Ellis F, (2007). Household strategies and rural livelihood diversification. *Journal of Development Studies 35(1)*, pp. 196-204

Fisher-French M. "How Junk Status Affects You". *City Press 09-04-2017.*

Hossain S, (2005). Poverty, household strategies and coping with urban life: Examining 'livelihood framework' in Dhaka City*, Bangladesh. Bangladesh Journal of Sociology, 2 (1): 1-8*

Hussein H and Nelson J, (1998). Sustainable livelihoods and livelihood diversification. IDS working paper no.69: Institute of development studies, pp. 2-11

Hussmanns R and Mehran F, (1993). Statistical definition of the informal sector - International standards and national practices. International Labour Office, Bureau of Statistics 4, route des Morillons CH-1211 Geneva 22, Switzerland, pp.1-4

Iiyama M, Kariuki P, Kristjanson P, Kaitibie S Maitima J, (2008). Livelihood Diversification Strategies, Incomes and Soil Management Strategies: A Case Study from Kerio Valley, Kenya. *Journal of International Development* 20(1), pp. 380–397

International Fund for Agricultural Development (IFAD), (2001). The challenge of ending rural poverty. Rural poverty report 2001. IFAD, Oxford University Press, New York, USA, pp. 266

Mehta R, (2009). Rural Livelihood Diversification and its Measurement Issues: Focus India. Wye City Group on Statistics on Rural Development and Agriculture Household Income, pp.2-4

Mathebula F, Perret S and Anseeuw W, (2005). Poverty and livelihoods in rural South Africa: Investigating diversity and dynamics of livelihoods. Case studies in Limpopo. Report on theme #1: Strategies for poverty alleviation and food security, pp.8-14

May J, (1996). Assets, Income and Livelihoods in Rural Kwazulu-Natal, Ch.1 in Lipton, M., Ellis, F. and Lipton, M. (eds.) ~ Land, Labour and Livelihoods in Rural South Africa Volume 2: Kwazulu-Natal and Northern Province. Durban: Indicator Press, pp1-30

McLaughlin S (1990). Skills training for the informal sector, analyzing the success and limitations of support programmes in Tumham D, Salome B and Schwartz A (eds), pp.250-255

Mompati NB and Jacobs T, (2009). The contribution of subsistence farming to food security in South Africa. South Africa, pp.6-9

Mturi AJ, (2012). Child-headed households in South Africa: What we know and what we don't. *Development Southern Africa 29(3),* pp.506-216

Munhenga D, (2014). Determinants of Rural Households Diversification of Livelihood Strategies. A case study of Intsika Yethu farmers of the Eastern Cape Province, South Africa, pp.153

Ndulo (2013). The Informal Sector in South Africa: Women street trading in Durban.http://m.polity.org.za/article/the-informal-sector-in-south-africa womenstreet-traders-in-durban-part-1-2013-05-13

Oluwatayo IB, (2009). Poverty and income diversification among households in rural Nigeria: A gender analysis of livelihood patterns. IESE Conference Paper No 41, Maputo, Mozambique, pp.4-15

Seshamani V (1990). The Informal Sector in Zambia: An Overview of Issues, Problems and Prospects. University of Zambia, Lusaka, Zambia, pp. 249

Skinner C, (2016). Informal Sector Employment: Policy Reflections. A critical Analysis of the Current South African Policy Landscape: Preliminary Findings, pp.5-22

Statistics South Africa, (2014). Informal Sector Growing, 14 August 2014. http://www.heraldlive.co.za/business/2014/08/14/informal-sector-growing-stats-sa/

Statistics South Africa, (2014b). Measuring poverty in South Africa: Methodological report on the development of the poverty lines for statistical reporting/Fieldworker 5(3), http//:www.statsa.gov.za

Statistics South Africa, (2015). Statistics by place, retrieved 27 September 2015. www.statsa.gov.za

Taborda J, (2017, January 6). South Africa Jobless rate at 13 year high of 27.7%.https://tradingeconomics.com/south-africa/unemployment-rate

Willemse L, (2011). Opportunities and constraints facing informal street traders: Evidence from four South African cities. Centre for Regional and Urban Innovation and Statistical Exploration (CRUISE), 59, pp. 6-15.