

# Factors Influencing Agriculture Loan Repayment by Small Farmers

(A Case Study of Farta Woreda, South Gondar – Ethiopia)

**Dr. Sunkara Chenchu Narayana**

Assistant Professor, Department of Economics  
College of Business and Economics, Wollo University,  
Dessie, Ethiopia

**Dr. Ponduri S. B.**

Associate Professor, Department of Management  
College of Business and Economics Wollo University,  
Dessie, Ethiopia

**Abstract** – Credit is one of the most important instruments for changing the cultivation practices of small farmers. Credit brings change in their ability to improve and utilization of knowledge and application of technologies like improved seeds, fertilizers, pesticides, with small size of the holdings, repayment of credit has come a challenging for almost all the farmers in Ethiopia. Based on the samples, this study is aimed to analyze the factors influencing the repayment of credit and its performance in selected farmer's multi-purpose service cooperatives of Farat district Amhara regional state of Ethiopia. For this study primary data was collected from 120 borrowers randomly selected by personal interview using pre tested schedules. In addition, secondary data were also collected from different concerned institutions from the relevant documents. The Log it model was used to analyze the factors influencing credit repayment among small farmer's in the Farta district. The influencing variables include natural calamities, annual farm income in production and distance from Multi-Purpose Cooperative Institutions, utilization of credit by household head, Off/non-farm income, age of the household and income from rented land. Considering these factors as vital which provides information it would enable us to undertake effective measures with the aim of improving credit repayment in the zone. It would also enable lenders and policy makers to have information so as to where and how to channelize the efforts in order to minimize the defaulters in loan repayment.

**Keywords** – Small Farmers, Co-Operatives, Analyze The Factors, Utilization of Knowledge.

## I. INTRODUCTION

Ethiopia is one of the largest countries in Africa both in terms of land area of 1.2 million square km and with estimated population of 80 million, with annual growth rate of 2.6 % (CSA, 2007). It is pre-dominantly an agrarian economy with the vast majority of its population directly or indirectly being involved in crop and livestock production. Agriculture plays a vital role in Ethiopian economy which accounts for about 46.3% GDP and 83.9% of export earnings (MoARD, 2009). Agricultural sector is critically important for overall economic performance and poverty alleviation. It has performed strongly over the last decade, but there is still substantial scope to sustainably, improving productivity, production and market linkages. The sector remains dominated by subsistence, low input, low output, rain fed farming system in which droughts periodically reverse performance gains with devastating effects on household food security and poverty levels (MoARD, 2010). Various Studies have shown that credit

plays an important role in enhancing agricultural productivity of the farmers (Mafimisebi, 2008; Henri-Ukoha, 2010). Documents show that no country in the world achieved food security and substantial productivity increase without significantly expanding of input credit use. Lending to the poor or lower income group raises many debates among practitioners and academicians. The poor are usually excluded from credit facilities because of insufficient collateral to support their loans, high transaction costs, unstable income, lower literacy and high monitoring costs. Usually they survive through involvement in micro business activities or informal activities that comprise food processing, small-scale agriculture services, crafts and petty-trading (Mead and Liedholm, 1998, Mohd Noor, 2010). Agricultural lending involves giving credit (in cash and kind) to small-scale farmers for the purpose of farming. Agricultural loan has a crucial impact on small agriculture land holder because it enables small-scale farmers to establish and expand their farms, as this would increase their income and capacity to repay the loan (J.A.folabi, 2008).

## II. OBJECTIVES OF THE STUDY

The general objective of the study is to analyze the sources of income and repayment performance of agricultural loans by small agricultural land holders in Farta district, south Gondar of Amhara Region. In addition to the general objective the research also focuses on the following specific objectives.

- To identify the sources of loan
- To assess the use of loans by smallholder farmers in the study area
- To study the determinant factors of the loan defaulter in small agricultural land holders.

## III. SCOPE OF THE STUDY

The study is conducted in Farta district in south Gondar Zone, Amhara National regional state, Ethiopia. The core effort of this study is to find out the key demographic, socio-economic and other factors that affect loan repayment performances of agricultural input by small agricultural land holding farmers. This study includes both non-defaulters and defaulters of agricultural loan repayment. In developing countries respondents are unwilling to offer exact evidence on the variable such as income, age, livestock number, farm size and others. It is

due to different governmental restrictions amongst them centered on these certainties. This study is not free from this constraint but to alleviate this difficulty as much as possible it was tried to persuade farmers separately and jointly about the objective of the study.

#### **IV. METHODS AND METHODOLOGY**

Factors Influencing Agriculture Loan Repayment by Small Farmers, a case study on Farta Woreda, South Gondar, Ethiopia, is based on primary and secondary data. The study includes both non-defaulters and defaulters. The selected kebeles were carefully identified based on each criterion by non-proportional purposive sampling. Among the total of 39 kebeles (37 rural and 2 urban) one out of 10 from Dega and three out of 27 Woina Dega were selected. Finally, 30 sample small agricultural land holders from respective sample kebeles and the total of 120 respondents were chosen by using non-proportional random sampling techniques. The data collected from the selected sample of 120 small farmers by distributing a structured questionnaire. The primary data has analyzed by using descriptive statistics, bivariate techniques and econometric models are mainly used. To support the primary data the researchers also used secondary data from related referred and non referred journals, magazines, information from cooperative societies, books of related and websites.

#### **V. LIMITATIONS OF THE STUDY**

The study is limited and covers mainly the agricultural input credit services extended through Multi-purpose cooperatives to purchase commercial fertilizers and improved variety of seed.

##### *Empirical studies on loan recovery and defaults in Ethiopia- Review of Literature*

The word credit comes from the Latin word Credo meaning "I believe". Agricultural credit makes traditional agriculture system more productive by purchase of farm equipment, introduction of modern irrigation system, technological up radiation and other agricultural inputs. It is also used as an instrument for market stability. It enhances the abilities of rural formers by means increasing storage facilities and providing transport system. It is used as a wealth distribution instrument by removing inequalities among the small, marginal and big farmers. There are limited sources available for agricultural finance in rural sector. Some institutional finances viewed this as a gap and extend the financial support in a planned manner. Agricultural credit is said to be effective only when the availed credit induces sufficient marginal value to the farmers, facilitate the repayment, along with the due interest amount. Knowledge of factors influencing loan repayment is definitely important for the barrower in order to pay the loan in time. The barrower should also know the schedules and incentives available for early and prompt payment of loan. Loan repayment performance is affected by a number of socio-economic, institutional and demographic factors. Some of the factors have a positive

impact and other have negative impact. Various studies have been carried out concerning loan repayment performance of borrowers in several other countries in the world. However, other socio-economic factors which did not have significant influences on loan repayment are gross farm income earned and cultivated farm size. Based on the results obtained in the study, it is recommended that further disbursement of loans should be directed at young and dynamic farmers who are more likely to adopt new innovations in agricultural production than their older counter parts. Adult literate farmers are also likely to adopt new innovations which may enhance their income and thereby positively influence loan repayment (J. O. Oladeebo1 and O. E. Oladeebo2, 2008). According to Mohammad (2009), the study evaluated the factors influencing on repayment performance of farmers in Iran of Khorasan-Razavi province. Other results showed that farmer's experience, income, received loan size have positive effect while loan interest rate, total application costs and number of installment implies a negative effect on repayment performance of recipients. Comparison the elasticity's of significant variables indicated that loan interest rate is the most important factor. Farming experience and total application costs are the next factors respectively.

#### **VI. RESULTS AND DISCUSSIONS**

This study is carried out to realize farmers' socio-economic characteristics as well as determining which of the structures significantly influence loan repayment i.e. the stage to which agricultural credit shares and in what way non-default and default levels were related with different personal and socio-economic features of farm households. At current, in Amhara National Regional State (ANRS) agricultural credit is distributed to small farmers through multi-purpose cooperatives (MPCs). Commercial bank against regional governmental collateral is the main source of fund for the input managed by the organization. The main purpose the government intervention in the credit operation, in the region is there is no responsible bureau or agency for loan repayment. This occupation has given to timely responsible to loan collection committee in place of different public offices of the woreda (Ministry of Finance, Ministry of Agriculture, administration council, police commission). The extent, grounds possible remedies of repayment performances of agricultural loan by small farmers are not yet given consideration, as a consequence, loan default is a tragedy, in the case of loan repayment failing to implement proper leading strategies and reliable policies constantly result in a failure of credit institutions. Hence, to design suitable lending program and procedures, information features which affect loan repayment performance of participants, suitable application on time and repay at promise time of loan, the official source of credit, natural tragedy and redundancy, marketing condition and their relative consequence of the aspects is essential. Therefore, this study deals about the nature of credit repayment, identification of major socio-economic factors which affect small farmer of loan

repayment and also how to regulate their relative importance of the components.

The present study examines (1) to identify the sources of loan Farta Woreda, South Gondar-Amhara Region in Ethiopia (2) to assess the use of loans by small farmers in

the study area and (3) to identify the determinant factors of the loan defaulter in small farmers.

*Personal and Demographic characteristics of respondents*

Table 1: Age of the respondents

| Age                | Non-defaulter |      | Defaulter |      | Total  |      | T-test   |
|--------------------|---------------|------|-----------|------|--------|------|----------|
|                    | No            | %    | No        | %    | No     | %    |          |
| 14-35              | 15            | 12.5 | 4         | 3.3  | 19     | 15.8 | 2.967*** |
| 36-45              | 24            | 20.6 | 17        | 14.2 | 41     | 34.2 |          |
| 46-65              | 36            | 30   | 14        | 11.7 | 50     | 41.7 |          |
| >65                | 1             | 1.3  | 9         | 7.5  | 10     | 8.3  |          |
| Over all Mean      | 44.2763       |      | 50.3409   |      | 46.5   |      |          |
| Minimum            | 26            |      | 28        |      | 26     |      |          |
| Maximum            | 75            |      | 76        |      | 76     |      |          |
| Standard Deviation | 9.174         |      | 13.141    |      | 11.118 |      |          |

(Source: Computed from primary data; Significant level of 0.004 (1 %))

The descriptive statistics shows that the sample household heads minimum and maximum age was 26 years and 76 years, respectively. Average age of sample household heads was 46.5 years and standard deviation 11.11. Then 14.8 percent of the household is in the range of 14-25 years, 34.2 percent of the respondents are aged from 36-45 years, 41.7 percent are about 46-65 years age, and the rest of 8.3 percent of the respondents are >65 years old. In group wise 12.5 percent of non-defaulter respondents' age was ranged between 14-25 years and about 20.6 percent of respondents were aged from 36 up to

45 years. The other 30 percent of non-defaulter respondent's age was between 46 to 65 years and 1.7 percent of the non defaulter is 1 respondent. In other wyes, with defaulter's age group about 3.3 percent was aged from 14 up to 35 years, 14.2 percent were aged from 36 up to 45 years, about 11.7 percent of defaulters were aged from 46 up to 65 years, 7.5 percent of the respondent were also aged >65 years. Consequently, the t-test value showed that difference between of non-defaulters and defaulters is statistically significant at 1 % level age of sample households for both dependent variables.

Table 2: Distribution of respondents by educational level

| Educational Background | Non-defaulter |      | Defaulter |      | Total |      | Chi-square |
|------------------------|---------------|------|-----------|------|-------|------|------------|
|                        | No            | %    | No        | %    | No    | %    |            |
| Can't read and write   | 12            | 10   | 11        | 9.2  | 23    | 19.2 | 14.58      |
| Read and write         | 24            | 20   | 22        | 18.3 | 46    | 38.3 |            |
| Church                 | 1             | 0.8  | 3         | 2.5  | 4     | 3.3  |            |
| 1-4                    | 17            | 14.2 | 4         | 3.3  | 21    | 17.5 |            |
| 5-8                    | 20            | 16.7 | 3         | 2.5  | 23    | 19.2 |            |
| 9-12                   | 2             | 1.7  | 1         | 0.8  | 3     | 2.5  |            |
| Total                  | 76            | 63.3 | 44        | 36.7 | 120   | 100  |            |

Source: Computed from primary date; \*\*Significant at (5%)

Education is supposed to change the respondents positively on the way of development of income. The capability of rural poor to convert their lifespan through charge at the door to economic resources is directed through various issues. Education supports respondents to improve business opportunities (Etbarek, 2008). Basically about 23 (19%) of the respondents are illiterate whereas 97 (81 %) of the respondents have different education status beginning from read and write to grade 12 level. In the survey area from total of 120 respondents 38 percent were can read and write. From total illiterate respondents, 9 percent were non-defaulters and 10 percent were defaulters. Additionally, 18 percent of the non-defaulters, 20 percent of the defaulters were can read and write. Then 14 percent of the respondent was non defaulter and 3.3 percent of defaulters were from grade 1 up to 4 grade. The

rest 18.7 percent of the respondent non defaulter, 3.3 percent of defaulter was from 5 up to 12 grades. The chi-square value (14.58) showed that there is statistically significant at 5% of p-value <0.01(0.012) its difference is on their education status among them with repayment performance.

#### *Land holding*

Land is a vital asset which is the life of farmers in Farta woreda. In the study woreda the sample households are set up to be farm households in which the household head derives his or her major revenue from sale of crop products. The farmers used outdated crop production system, which cultivate cereal and legumes crops. The size of land directly affects the loan repayment performance of the household farmers. The landholding of non-defaulter and defaulters are showed in (Table 3) the

minimum size of land holding by non-defaulter and defaulter is both of 0 hectare whereas the maximum amount of land owned by the group of non-defaulter and defaulter is 3 and 1.5 hectares respectively. The average

land holding of non-defaulter and defaulters are 0.91 and 0.83 hectares respectively. Moreover, the t-value (-1.118) showed that there was not statistically significant at (p=0.266).

Table 3: Land holding size of sample household

| Land holding       | Non-defaulter |      | Defaulter |      | Total |      | T-Value |
|--------------------|---------------|------|-----------|------|-------|------|---------|
|                    | No            | %    | No        | %    | No    | %    |         |
| 0- 0.25            | 2             | 1.7  | 3         | 2.5  | 5     | 4.2  | -1.118  |
| 0.251-.5           | 14            | 11.7 | 4         | 3.3  | 18    | 15   |         |
| 0.501- 1           | 43            | 35.8 | 27        | 22.5 | 70    | 58.3 |         |
| 1.01-2             | 16            | 13.3 | 10        | 8.3  | 26    | 21.7 |         |
| >2.01              | 1             | 0.8  | 0         | 0    | 1     | 0.8  |         |
| Overall Mean       | 0.91          |      | 0.83      |      | 0.88  |      |         |
| Minimum            | 00            |      | 00        |      | 00    |      |         |
| Maximum            | 3             |      | 1.5       |      | 3     |      |         |
| Standard Deviation | 0.45          |      | 0.31      |      | 0.41  |      |         |

Source: Computed from primary data,

Table 4: Off/non-farm income by respondent

| Off/non-farm income     | Non-defaulter |      | Defaulter |     | Total |      | X <sup>2</sup> |
|-------------------------|---------------|------|-----------|-----|-------|------|----------------|
|                         | No            | %    | No        | %   | No    | %    |                |
| Labor selling           | 36            | 30   | 8         | 6.7 | 44    | 36.7 | 62.332         |
| Charcoal selling        | 5             | 4.2  | 0         | 0   | 5     | 4.2  |                |
| Eucalyptus tree selling | 3             | 2.5  | 0         | 0   | 3     | 2.5  |                |
| All the three above     | 29            | 24.2 | 6         | 5   | 35    | 29.2 |                |
| Petty trading           | 1             | 0.8  | 0         | 0   | 1     | 0.8  |                |
| None                    | 2             | 1.7  | 30        | 25  | 32    | 26.7 |                |

Source: Computed from primary data \*\*\* Significant at (1%)

#### Off/non-farm

The main off-farm and non-farm income creating activities practiced in the Study area such as fire wood, charcoal, eucalyptus tree selling petty trading (exchange consumable products, weaving, hand craft etc. These non-farm earnings combined and refund the input credit in time. as described in (Table 4) the outcome was revealed 88 (73.33 %) borrowers have access (participating) to off-farm income and the respondents those who are not

participate with off/non income generating activities are 32(26.67) .in group wise 74 (61.67) non defaulter and 14 (11.67) defaulter are participating in off/non-farm activities. Therefore, non-defaulters get more non-farm income than defaulter; because more time works in cash earning activities like eucalyptus tree selling, petty trading, and hand craft work. Furthermore, the X<sup>2</sup> (62.33) revealed that difference between non-defaulters and defaulters is statistically significant at 1% level (p=0.000).

Table 5: Income from crop production

| Land holding   | Non-defaulter |      | Defaulter |      | Total   |      | T-Value   |
|----------------|---------------|------|-----------|------|---------|------|-----------|
|                | No            | %    | No        | %    | No      | %    |           |
| 1000-10000     | 28            | 23.3 | 32        | 26.7 | 60      | 50   | -3.835*** |
| 10001-15000    | 27            | 22.5 | 8         | 6.7  | 35      | 29.2 |           |
| 15001-20000    | 10            | 8.3  | 1         | .8   | 11      | 9.2  |           |
| 20001-25000    | 6             | 5    | 2         | 1.8  | 8       | 6.7  |           |
| 25001-30000    | 3             | 2.5  | 1         | .8   | 4       | 3.3  |           |
| >30000         | 2             | 1.7  | 0         | 0    | 2       | 1.7  |           |
| Mean           | 13817         |      | 8792.6    |      | 11975   |      |           |
| Min            | 2450          |      | 1220      |      | 1220    |      |           |
| Max            | 71000         |      | 26675     |      | 7100    |      |           |
| Std. Deviation | 6258.53       |      | 5118.61   |      | 8331.11 |      |           |

Source: computed from primary data; \*\*\*Statistically Significant at 1% level

The cultivated varieties of crop production by the respondents are wheat, barley, potato some extent teff, beans are grown in the study areas this is an important income sources. The sample small farmers' sources are mainly generated from crop production, used as consumption smoothing, purchasing of inputs and repayments of loan. Moreover the descriptive statistics

shown in (Table 5) the average crop selling income of the respondent farmers was 11975 Birr and standard deviation was 8331.12. In group wise the average crop selling rates of non-defaulter was Birr 13817 and the defaulter birr 8792.6). Likewise, the t-value (-3.835) showed that there is statistically significant at 1% (p=0.000).

Table 6: Total income of respondent households

| Total Income   | Non-defaulter |      | Defaulter |      | Total   |      | T-Value   |
|----------------|---------------|------|-----------|------|---------|------|-----------|
|                | No            | %    | No        | %    | No      | %    |           |
| 1000-5000      | 5             | 4.2  | 7         | 5.8  | 12      | 10   | -3.685*** |
| 5001-10000     | 17            | 14.2 | 22        | 18.3 | 39      | 32.7 |           |
| 10001-20000    | 41            | 34.2 | 11        | 9.2  | 52      | 43.3 |           |
| 20001-30000    | 10            | 8.3  | 4         | 3.3  | 14      | 11.7 |           |
| >30001         | 3             | 2.5  | 0         | 0    | 3       | 2.5  |           |
| Mean           | 14728         |      | 9269      |      | 12726   |      |           |
| Minimum        | 2750          |      | 1220      |      | 1200    |      |           |
| Maximum        | 71000         |      | 26726     |      | 71000   |      |           |
| Sat. deviation | 9462.55       |      | 5421.45   |      | 8604.18 |      |           |

Source: Computed from primary data; \*\*\*Statistically Significant at 1% level

#### Total annual income of sampled respondents

In the study areas, the leading assets, such as land, livestock and annual crop production, irrigation scheme and off/non-farm income are the main variables that brings about household food security. This sector is, accordingly, devoted to the discussion of basic resources to farming household's access and contribution to household food security. Generally the aggregate income sources, such as annual farm production (crop production),

livestock selling, irrigation income, and off/non-farm activities income are analyzed below. In (Table 6) the average income of this sample household were birr 12726 with standard deviation of 8604.18 and the average income of non-defaulter and defaulter is Birr 14728 and Birr 9269 respectively. Furthermore, the t-value (-3.685) showed that the difference between non-defaulters and defaulters is statistically significant at 1% (p=0.000) with concerning to total cash income.

Table 7: Other sources of credit

| Other Income | Non-defaulter |      | Defaulter |      | Total |      | X <sup>2</sup> |
|--------------|---------------|------|-----------|------|-------|------|----------------|
|              | No            | %    | No        | %    | No    | %    |                |
| Yes          | 45            | 37.5 | 19        | 15.8 | 64    | 53.3 | 2.877 *        |
| No           | 31            | 25.8 | 25        | 20.8 | 56    | 46.7 |                |

Source: Own data; \*Statistically Significant at level (10%)

#### Other sources of credit

MPCs is the main input lending institution for respondent farmers in the study area in addition to MPCs, farmers credited from other sources such as ACSI, money lenders, relatives, idder, eqqub was taken and used for petty trading, purchase of small animals, oxen, consumption needs etc. from total of 120 sample farmers, 64 (53.3 percent) was answered borrowed out from other sources of loan, whereas the rest 56 (46.7 percent) have not borrowed from other lending institution. In (Table 7) the descriptive statistics result, showed that in other ways from 120 sample of small farmers responded the non-defaulter and defaulter had borrowed additional loan from ACSI and other sources of credit, that is 45 (37.5 percent) and 19(15.8 percent) respectively.

#### Loan from MPCs

All farmers of study area are used agricultural input gained from MPCs by credit for crop production. Farmers

used to purchase of fertilizer and improved varieties of seeds. The input supplied by MPCs to farmers in the study area is fertilizers and improved seeds. Even if the farmers gained the input loan in kind the agreement was in cash credit terms. The loans for such inputs are short term in nature and are expected to be paid back in the follow crop season. The descriptive statistics showed in the smallholder farmers get the average amount of credit from MPCs was valued Birr 861.52 and standard deviation of 458.88 in other ways the average loan taken by non-defaulter and defaulter were Birr 944.03 and Birr 719.21 respectively. The maximum and minimum amount loan taken by non-defaulters was Birr 2800 and 195, with in defaulters 2060 and 205 respectively. (Table 8) depict that, the t-value (-2.654) revealed the difference between non-defaulters and defaulters was statistically significant at 1% (p=0 .009) level.

Table 8: Amount of credit access by sample farmers from MPCs

| Total Income | Non-defaulter |      | Defaulter |      | Total  |      | T-Value   |
|--------------|---------------|------|-----------|------|--------|------|-----------|
|              | No            | %    | No        | %    | No     | %    |           |
| 150-300      | 1             | .8   | 1         | .8   | 2      | 1.7  | -2.654*** |
| 301-600      | 11            | 9.2  | 19        | 15.8 | 30     | 25   |           |
| 601-900      | 33            | 27.5 | 17        | 14.2 | 50     | 41.7 |           |
| 901-1200     | 13            | 10.8 | 2         | 1.7  | 15     | 12.5 |           |
| >1200        | 18            | 15   | 5         | 4.2  | 23     | 19.2 |           |
| Mean         | 944.03        |      | 719.21    |      | 861.52 |      |           |
| Min          | 195           |      | 205       |      | 195    |      |           |
| Max          | 2800          |      | 2060      |      | 2800   |      |           |
| Sd.Dv        | 465.99        |      | 413.74    |      | 458.88 |      |           |

Source: Computed from primary data; \*\*\*Statistically Significant at level 1%

Table 9: Fair price of agricultural products

| Other Income | Non-defaulter |      | Defaulter |      | Total |      | X <sup>2</sup> |
|--------------|---------------|------|-----------|------|-------|------|----------------|
|              | No            | %    | No        | %    | No    | %    |                |
| No           | 8             | 6.7  | 12        | 10   | 20    | 16.7 | 7.638          |
| Yes          | 68            | 56.7 | 32        | 26.7 | 100   | 83.3 |                |

Source: Own data (2011); \*\* Statistically Significant at 5%

*Price of products*

The survey result showed that among the total respondent farmers 100 (83.3percent) reported that the current price of livestock and crop production was fair. While the remaining 20(16.7 percent) was not get fair price of production in group wise from sample households 68 (56.7 %) non-defaulters and 32 (26.7 %) of defaulters

have got fair price. besides that they mentioned on the interview time due to road and transportation problem 8 (6.7%) of non-defaulters and 12 (4.7 %) defaulters were not getting fair price for their product (Table 9). Furthermore, the  $\chi^2$ -values (7.638) showed that the difference between non-defaulters and defaulters was statistically significant different at 5% (p=0.022) level.

Table 10: Improve living standard after using input credit

| Improved standard of living | Non-defaulter |      | Defaulter |      | Total |      | X <sup>2</sup> |
|-----------------------------|---------------|------|-----------|------|-------|------|----------------|
|                             | No            | %    | No        | %    | No    | %    |                |
| No                          | 1             | 0.8  | 21        | 17.5 | 22    | 18.3 | 40.814         |
| Yes                         | 75            | 62.5 | 23        | 19.2 | 98    | 81.7 |                |

Source: Compute from the primary data; \*\*\* Significant at 1%

*Improve living standard after using Agriculture input credit*

Agricultural input increases production and productivity. If production increases the amount of income also increases too. Hence, farmers can invest not only for their daily life but also can develop other income generating mechanism. Therefore, agricultural inputs can serve as a useful purpose both to increase the households' standard of living and it is possible to carryout additional project activities to have more returns. The descriptive statistics showed that from 120 sample respondents 98(81.7%) responded that farmers participating in different income generating activities. The rest 22(18.3%) sample farmers had not in the way of the activities. in group wise 75 (62.5%) were non defaulters and 23(19.2%) defaulters who were participated in income generating activities (table 11). moreover the  $\chi^2$ -values (40.814) show that the difference between non-defaulters and defaulters was statistically significant at less than 1% level.

**VII. CONCLUSION AND RECOMMENDATIONS**

The research showed that loan repayment performance was affected by various determinants. Hence, fair price, land holding, improving of living standard and other sources of credit were the major variable that affect positively while age of the household, off-farm/non-farm income and natural calamities were variables that affect loan repayment performance of the study area. Having these results, the research provides a basis for undertaking similar studies and can contribute to assist government offices, credit institutions, researchers and other concerned bodies in loan provision since it draw attention as to how to distribute and control the loan and indicate the most important factors affecting the increase in annual income of borrowers and borrowers' capacity to repay loan on time. Moreover, this type of research could be useful for policy makers whose duty is to improve the wellbeing of farmers and encouragement and promotion of the participation of rural farmers in development activities so

that they could contribute their share toward food security of their families.

Nevertheless, the results of the different models used in this study and based on the above summaries and conclusions which may be interpreted as the policy suggestions the following possible recommendations were made:

- This research finding revealed that, elder farmers are more reluctant to use new technologies and they are risk averters. Hence, lending institution should give more attention to youth in providing their loan either of the appropriate lending rules and regulations.
- The findings of this research also showed that, farmers improve their living standards by using agricultural credit, annual farm incomes who were assisted with loan to have better livelihoods by purchasing agricultural inputs and other income generating activities. Therefore, lending institutions should help farmers timely and as much possible in close proximity in order to diversify new technologies and proper input utilization. So that, farmers can create assets by which they can improve their living standards to alleviate poverty in rural Ethiopia.
- Increasing population density and land depletion are two faces of the coin. At present, the opportunity of using wide-ranging farm land has become really hard. In this regard, the government would play a vital role in providing both, structured and policy frameworks that will assist the productive use of resources. Multi-dimensional farmers' training has to be intended to encourage farmers understanding on effects of technological changes and intensive use of land resources. Hence, attention should be given to promote the low acceptance level of improved seeds and broad use of fertilizer in order to achieve high level of production per unit area in a sustainable manner.
- Since rural credit programs are an integral component of credit policy in Ethiopia, government policies should target smallholder farmers' oriented institutions such as ACSI and other informal and semi-formal credit institutions, because the specialized banks were unable to meet the demand of smallholders.
- MPCs and concerned organizations have a responsibility to play jointly a vital role in reducing overhead costs of agricultural inputs there by it decreases the total price of inputs with adequate amounts of improved seed at the required time and then by improving marketing effectiveness through reducing long marketing channels.
- Based on the model's result, off-farm /non- farm income on loan repayment performance of respondent farmers and negatively related. This result enabled us to endorse that the creation of non-farm and off farm activities for those less amount farm land extra income would be diversified in the rural areas. So that, the government should give more attention to the landless young farmers in collaboration with concerned bodies to create more job opportunities to absorb unemployed labor and assists the farmer to generate further revenue. This may alleviate rural problems such as rural unemployment and shortage of cultivable land.
- Government should support MPCs to buy members' products with fair price when the price of grain fails at the

repayment time. In the meanwhile, linkages should be created between cooperatives and consumers so as to sell the collected already bought production from farmers. As a result, MPCs and farmers can get better benefit, and those farmers can participate in suitable extension package programs on sustainable basis of production.

### SCOPE FOR FURTHER RESEARCH

Factors influencing agriculture loan repayment by small farmers, a case study of Farta Woreda, South Gondar – Ethiopia. The study has a vast scope for further research. This study is also applicable to other places of Ethiopia and even to the other countries of African continent. The study also be enhanced to the other areas like repayment capacity of small agricultural land holders, sources of income for small land holders to repay the loan. This study is not only for the selected samples and population but also can be extended other sectors of financial support provided by the government and Non-governmental organizations.

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(MBA) with marketing specialization from Acharya Nagarjuna University, Guntur. He also completed Master of Commerce from Andhra University with Banking Specialization. He obtained Doctor of Philosophy (PhD) from Osmania University, Hyderabad with Customer Relationship Management (CRM) in selected service sector organizations. He was also qualified for SLET conducted by AP college service commission (APCSC) in 1999. He is also a visiting faculty for AP Study Circle where he disseminates his knowledge and experience to students preparing for civil services examination. Apart from teaching management students he is also a trainer for top, middle and lower level managers of reputed MNC's, PSU's and renowned Private Limited companies namely DRDL, DRDO, NTPC, VSP, MIDHANI, BDL, HERITAGE, PITTI LAMINATIONS, EUREKA FORBES, CENTURY MATRESSES, SUPER SPINNING MILLS LTD attended 5 International Seminars and more than 20 National Seminars. His research articles have published in various International and National journals. He published more than 8 International and 20 National publications. He is also an editorial board member for reputed International Journals. He is also a visiting faculty, examiner and paper setter for various universities and business schools like BRAOU, SMU, IGNOU, IIPM, SIVA SHIVANI and VVIM. He edited one book titled "Emerging Dimensions in Business Management". is guiding 3 Doctoral students of JNTUH and JNTUK and 10 MPhil students of various universities across India. He has also organized programmes in All India Radio (AIR) for development of management education. He also organized various programmes into national Television channels for importance of management education and opportunities for the students. He is a lifetime member of Hyderabad Management Association. He can be reached at Cell: 0945853018, Email:suresh\_ponduri@yahoo.com

## AUTHOR'S PROFILE



### Dr. S. Chenchu Narayana

Assistant professor, Department of Economics, College of Business Economics, Wollo Univeristy, Ethiopia, Dr. S. Chenchu Narayana, currently working in the Department of Economics, College of Business and Economics, Wollo University, Dessie, Ethiopia. He also worked in Department of Natural Resource and Economic Management, College of Dry land Agriculture, Mekelle University, Ethiopia. He has 14 years of teaching, training and research experience. He worked in different public sector organization where he disseminates his knowledge to the upcoming managers and practicing managers of agriculture development. He awarded Doctorial degree is for his research work titled as "Economics of Child Labour: A case study of its Spatial, Social and Occupational Dimensions in Kurnool District - He is an evaluator for master's thesis of different universities in Ethiopia. His research contributions are published in several International and National journals across the world and India. His main area of interest is on economics, rural development and child labour. He also visited several places across the India for the development of rural agriculture, economic standards of the rural people, and child labour elimination. He also elected as a delegate to visit countries like Nepal and Bangladesh on behalf of the government of India. He can be reached at 0934472389, Email: narayana.wollo@gmail.com

### Dr. Ponduri Suresh Babu

Associate professor, Department of management, College of Business and Economics, Wollo University, Dessie, Ethiopia, Dr. Ponduri SB is currently working as an Associate Professor in the Department of Management Studies, College of Business and Economics, Wollo University, Dessie, Ethiopia. Previously he worked as a Head of the Department of Management Studies at Mahaveer Institute of Science and Technology, Hyderabad, India. He has over 16 years of experience in teaching and training. He started his career with Bachelor of Business Management (BBM) from GITAM Vizag. He completed his masters