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School of Graduate Studies

INFORMAL FINANCIAL INSTITUTIONS:

Impact Analysis of ACORD's Credit Intervention through *Iddirs* in Dire Dawa

A thesis submitted to the School of Graduate Studies, Addis Ababa University in partial fulfillment of the requirements of the degree of Master of Science in Economic Policy Analysis

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June, 2000

Addis Ababa

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ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

INFORMAL FINANCIAL INSTITUTIONS: IMPACT ANALYSIS OF ACORD'S CREDIT INTERVENTION THROUGH *IDDIRS* IN DIRE DAWA

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Acknowledgment:

I would like to sincerely appreciate Ato Abebe Shimeles who as an advisor has provided me with valuable comments and constructive supports. The Amhara National Regional State Council deserves my heart-felt thanks for having sponsored my studies. I am very much grateful to Ato Asfaw Mekonnen, Country Coordinator of ACORD Ethiopia. I am as well indebted to all ACORD staff of both the country office and Dire Dawa for their relentless support and cooperation through out the research work. My sincere thanks also goes to Ato Yared Fekade, Head of the Amhara National Regional State, Trade and Industry Bureau who has supplied me with relevant literature from the internet.

Thanks are also due to Dr. Gebrehiwot Ageba who assisted me in framing the questionnaires for the research along with providing me some valuable information on the areas of this study. My colleague from the Trade & Industry Bureau of the Amhara Regional State, Yirgalem G/Egziabhier also deserves many thanks as he was providing me with some relevant materials on microfinancing. Last but not least, my family deserves many thanks for encouraging me to go through this ordeal. My daughter Haleluya to whom I have dedicated this study, Birtukan and Kinfe have been of great emotional support in my stay in the graduate school. Otherwise, all errors and omissions remain my own responsibility.

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Abbreviations & Acronyms:

ACORD	Agency for Cooperation in Research and Development
ACSI	Amhara Credit & Saving Institution
ADB-Consult	African Development & Business Consult
Arata Abedari	The Ethiopian acronym for money lender
BKK	Bedan Credit Kecamatan
BRAC	Bangladesh Rural Advancement Committee
CBB	Construction & Business Bank
CBE	Commercial bank of Ethiopia
CBO	Community Based Organization
CBO-RCF	Community Based Organization-Revolving Credit Fund
CCC	Casa Campesina Cayambe
CHI	CASHPOR House Index
CSA	Central statistical Authority
DBE	Development bank of Ethiopia
DECSI	Dedebit Credit & Saving Institution
EIC	Ethiopian Insurance Corporation
GB	Grameen Bank
GDP	Gross domestic Product
IDA	International Development agency
Iddirs	Traditional insurance institutions in Ethiopia
Iqqubs	Rotating Credit & Saving Schemes in Ethiopia

Kebele	The lowest administrative unit in Ethiopia
KREP	Kenya Rural Enterprise Program
Mahber	Traditional association organized for reciprocal interests in Ethiopia
MFA	Ministry of Finance
MOPED	Ministry of Planning & Economic Development
MOTI	Ministry of Trade & Industry
MSE	Micro and Small Enterprises
MTDP	Market Town Development Program
NGO	Non Government Organization
NIE	New Institutional Economics
OCSI	Oromo Credit & Saving Institution
OMFI	Omo Micro Financing & Saving Institution
POCSSBO	Project Office for the Creation of Small Scale Organizations
PWR	Participatory wealth Ranking
RCF	Revolving Credit Fund
SSA	Sub Saharan Africa
SUNGI	SUNGI development Foundation
URAC	Union Regional de Apoyo Campesino
Woreda	The administrative unit higher than the Kebele in Ethiopia

Abstract:

Quite a sizable number of people in urban Ethiopia make their living as informal sector operators. Among the many problems facing the sector, lack of financial intermediation by formal financial institutions is one. The informal financial sector is of prime importance to informal sector operators in Ethiopia. Iddirs, iqqubs, etc, are community-based networks that provide financial intermediation to those sectors neglected by formal financial institutions. Having understood the importance of such institutions in credit intermediation for the fight against poverty, an international consortium of NGOs, called ACORD has opted in working through iddirs as entry media for microcredit intermediation to the urban informal sector operators in Dire Dawa. This study assesses the impact of ACORD's microcredit scheme through iddirs on program participants. Besides, loan repayment performance along with assessing determinants of full loan repayment for the ACORD microcredit scheme in Dire Dawa is measured in the study. The institutional viability of the small loan program run through the iddirs in Dire Dawa is as well appraised. Since the credit market is generally believed to suffer from the problem of information asymmetry, the study attempts to find out whether ACORD's iddir-based credit intermediation is sustaining serious impediments of the sort.

Based on surveyed data on ACORD's iddir-based credit scheme, the study concludes that the majority of the program participants have benefited in most welfare measuring variables after the loan program. These are among others, changes in income, assets, nutition, access to medical and educational facilities, as well as positive overall impacts on women. Regarding loan repayment performance, the scheme has maintained a more than 90% recovery rate over the last five years and is plausible by many microfinance institutions' standards in the country. Based on regression estimates, it is found that loan size, and the number of dependent are significant and positively related to loan diversion while use of bookkeeping and interest rates have shown negative signs. On the other hand, estimates for the full loan repayment equation depict that the coefficients for other income sources, loan supervision visits, perceived cost of default, income from loan financed business and interest rate are all significant and positively related to full loan repayment. With respect to institutional viability, the provision of capacity building supports, initiatives connected to networking and institution building like the formation of CBO associations, the commitment of members, etc. are promising symptoms towards attaining institutional viability of the ACORD-initiated CBOs revolving credit scheme in Dire Dawa. Information asymmetry is less of a problem in the Dire Dawa iddir-based loan program, even in the face of high interest rates. This is so because peer pressure & social sanctions play very vital roles in mitigating both adverse selection and moral hazard along with the fact the financial services provided are kind of user-owned operations.

It can be learned from this research findings that microcredit services are important means of alleviating poverty and impacting positive welfare shocks to program participants in Ethiopia. Informal financial institutions like iddirs are also a viable means of reaching the poor through small loan programs, given that they are provided some seed capital along with the necessary technical support that later on will qualify them to graduate to formal financial operators.

CHAPTER ONE

Introduction:

1.1 Background

1.1.1 Poverty & the Ethiopian Informal Sector:

The most challenging task that developing countries are confronted with is the strive against poverty. Ethiopia is no exception to this challenge. Studies show that over half of the Ethiopia population lives in abject poverty (MOPED, 1994). The fact that a big size of the population lives in poverty implies that the rural population is the prime victim. By rural standards as Mekonnen (1996) states, urban Ethiopia is better off though poverty in the urban areas too is recently picking up.

Macro economic indicators clearly show that the country suffers from under development. The economy is of a dualistic structure with an indigenous subsistence rural economy contrasted by modern exchange sector. The agricultural sector contributes 50% to GDP, 85% to export and employment. The industrial sector on the other hand is heavily dependent on imported raw materials, spare parts, fuel and semi —processed goods (MFA, 1997).

The manufacturing sector including small scale and handicrafts contributes about 11% to GDP, 15% to total export and 30% to total employment (MFA, 1997). Confronted with macro economic challenges and widespread poverty, the government is putting-up mounting efforts to create an appropriate policy and regulatory environment coupled with the necessary infrastructure.

The per capita income of Ethiopia is estimated at US $ 110. Comparing this mean per capita income to what the World Bank labels as a global poverty line income i.e. US $ 370 per annum (World Bank, 1990,P.28), we can perceive how the poverty situation in Ethiopia is alarming. As per World Bank report, 1992, about 27 million people in Ethiopia were found to be chronically poor (See Bekele Tilahun, 1996). Of the 27 million people living in abject poverty, no one for definite knows how many are surviving on the proceeds from the informal sector of the economy. For sure, however, quite a sizeable number are expected to have pursed life as informal sector operators. ADB – Consult estimates the population of rural informal sector operators as 414,100 and urban micro-enterprise operators as being over 1.4 million (Bekele Tilahun, 1996). On the other hand the CSA in its sample survey conducted in 48 major towns in May 1997 indicates that there are about 584,913 informal sector operators in urban Ethiopia.

An informal sector operator (or a micro-enterprise) is defined as an enterprise involving one person and the average annual operating surplus is estimated at Birr 1300. As per CSA's survey (1997), the informal sector operators in urban Ethiopia are involved in the following activities; i.e. 47% in manufacturing, 42% in trade, hotel and restaurant activities, about 6% in community and personal services and the rest 5% in agriculture, hunting, forestry, fishing and mining (MOTI, 1997).

As indicated in the Micro and Small Enterprise (MSE) Development Strategy of Ethiopia (See MOTI, 1997), the informal sector plays a vital role in employment generation and social stability. It is stated that it employs more than four-fold that of the medium and large scale manufacturing sector and constitutes 3.4% to GDP which is about 33% of the industrial sector's contribution and 52% of the manufacturing sector's output.

Experiences of faster developing countries show that the MSE sector is desirable to stimulate competition and bring about an efficient allocation of resources. Besides, the sector is very flexible and reactive to changing market conditions. The MSE sector is also believed to stimulate the local economy along with promoting entrepreneurship, technological and structural changes (MOTI, 1997).

Despite that the informal and small enterprise sector contributes to a vibrant formal small and medium enterprise sector, the Ethiopian informal sector is not without problems. In this respect Bekele (P.286, 1996) lists the following four major problems debilitating the growth and contribution of the informal sector in Ethiopia.

i. Shortage of start-up capital
ii. Lack of working premises and insecure business sites
iii. Neglect and rejection of the sector's operators and considering them as out-laws by policy-makers and public sector agents
iv. Marketing constraint

The discussion paper on MSE development strategy (MOTI, 1997) also states the fundamental constraints of the informal sector along with small enterprise sector of the country as follows:

i. Discriminatory and unconducive legal and regulatory environment

ii. Poor financial situation and lack of access to finance

iii. Inadequate infrastructure and lack of business premises

iv. Lack of business information

v. Low technical and management skills and lack of support services

1.1.2 The Financial System of Ethiopia:

The Formal Financial sector: The formal financial institutions operate in areas where they perceive lower risks, where enforcement and transaction costs are least while the informal financial sector operates in areas and sectors where the former fails to provide lending and deposit services. The formal financial institutions in Ethiopia include the Central Bank, the banking sector (CBE, DBE,CBB and the recently proliferating private commercial banks like Dashen, Wogagen, Abysinia, Awash International, Nib International etc.) and the non-banking financial institutions like the public and private insurance companies (EIC, NICE, NYALA, Africa, Awash etc.) The Ethiopian formal financial sector had in the past been subjected to exogenous credit rationing; i.e. credit rationing which is legally imposed through heavy regulation such as interest rate ceilings and sectoral credit allocation. As of recent however, the sector is operating through endogenous credit rationing principles and hence the financial shallowing that the sector used to suffer from before government and policy changes has been mitigated. Currently financial intermediation by the formal financial sector seems to have grown as more financial sector operators have joined the sector. With improvements in the financial system however, the poor and the marginalized who are operating as peasant farmers and/or informal sector operators do not access credit from the formal financial institutions unless the government intervenes due to the obvious features that characterize rural credit markets – i.e. scarce collateral, underdeveloped complementary institutions, covariant risk and segmented markets.

The Informal Financial Sector: The bulk of the population falling in the low to medium income-bracket in Ethiopia secures lending and deposit services from the informal financial sector. The formal sector is urban and income biased as well as too procedural particularly for the poor and uneducated majority of the country's population. It is estimated that 78% of total agricultural credit in Ethiopia stems from the informal financial sector (Dejene, 1999). According to one report, Dejene (1999) states that of the surveyed house holds, 66% secure financial services from friends & relatives, 15%from money lenders and the rest (19%) from other sources. Only 1% of reporting house holds possessed bank accounts (See Dejene 1999, p.3).

In this respect Solomon states that the informal financial institutions are by far the most important sources of loanable funds both for the rural and urban population as compared to the formal financial sector (Solomon Damte, P.310, 1996).

Dejene (1993), emphatically demonstrates how inaccessible the formal sector is to the majority of the Ethiopian population as follows:

"The great bulk of the Ethiopian population makes little or no use of the formal savings and lending institutions. In a country where more than 80% of the population lives in rural areas, the few banks and credit associations that are presently operational are limited to urban areas. The per head deposit for the total population in 1985-86 is not more than birr 90."

The informal financial sector in Ethiopia mainly comprises of *iqqubs* (rotating savings scheme), *iddirs* (traditional insurance scheme), *arata-abedari* (usurer), etc. This sector is neither regulated nor counted for in the country's financial intermediation process. The sector however provides by far the greatest services to the bulk of the population with flexible financial innovation and terms to maturity. The sector provides timely and user- friendly loans both in size, rates of interest (save usurers rate) and terms to maturity. As opposed to the formal financial system which is typically known for its high costs per transaction, bureaucratic lending procedures, elaborate paper work, high collateral requirements and delays (Dejene P.6, 1993), the informal financial sector provides better services to small-size loan demanders with less cumbersome procedures and at lower transaction costs.

Though, the informal financial sector is of meaningful service to most informal sector operators and the farming population, government support to the sector has been until recently very low. Nowadays, micro enterprise and informal sector promotion is getting serious consideration and support from policy makers as it is believed that the sector generates sizeable self–employment and alleviates poverty.

Microfinancing in Ethiopia: Both formal and informal financing targeted at food security and poverty alleviation has been pursued by local and international NGOs. Before the promulgation of proclamation No. 40/1996 that currently serves as a basis for the legal and regulatory framework for micro–financing, all micro–financing operations by local and international NGOs including the " Market Town Development Program " (MTDP) were run under the legal provision of proclamation No. 138/78 which provides for the establishment of thrift and credit cooperatives .

With the perception of policy makers regarding the promotion of the informal sector, it was deemed necessary to streamline financial, legal, and technical support to the sector. In response to the pressing financial, infrastructural and legal demands of the micro and small enterprise sector, the Ministry of Trade and Industry drafted a strategy paper and the Federal Government promulgated proclamation No. 40/1996 which provides for the Licensing and Supervision of the business of Micro Financing Institutions to enforce the micro – financing proclamation.

The micro financing proclamation was issued in order to provide for a legal regime of micro financing institutions within Ethiopia's monetary and financial policies. Besides, it was meant to fill the missing gap that the monetary and banking laws of the country did not provide for micro financing institutions that cater for the credit requirements of peasant farmers and micro-level business operators.

Nowadays there are quite a number of micro-financing institutions that operate both in regions and the capital providing loans and technical support to organized micro enterprise and informal sector operators. Since the issuance of proclamation 40/1996 that provides for the establishment of microfinancing institutions, sixteen microfinance institutions with a total paid-up capital of Birr 9.8 million have been legally registered and licensed until end of April 2000. Wolday reported the outreach of 11 microfinancing institutions and stated that these institutions have all together reached a client population of about 408,480. These microfinance institutions are DECSI of Tigray (with 52% of countrywide client size), ACSI of Amhara (29%), OMFI of Southern Region (9%), OCSI of Oromia (6%), Sidama Microfinance Institution (3%), Asser Micro Financing (0.4%), SFPI (0.4), Africa Village Financial services and Buussa-Gonofaa Micro Financing S.C. (See Wolday, 1999,p.2).

The microfinancing services provided in Ethiopia far outweigh the client base served by those institutions licensed under proclamation no.40/1996. Leaving aside how many thousands of poor Ethiopians are served by the informal financial sector which is usually unrecorded and unregulated, one can look at how large client size is served by the Market Town Development Program (MTDP) in urban Ethiopia. The MTDP is a project initiated in 1990 following an agreement between the Ethiopian government and the World Bank (IDA). The program has been operational since 1994. Initially 16 towns (10 in Oromia, 4 in Amhara, 2 in Southern Region) were targeted for microcredit services to the poor (65% women); by the end of 1997 the number of towns reached 59 (16 in Oromia, 21 in Amhara, 15 in Southern Region, and 7 in Tigray) (See Tamiru, 1998,p.17). Between 1994 and 1997, this credit scheme has served over 34 thousand clients (65% women) and a total of 50.2 million birr has been disbursed at 15 % interest rate and overall repayment performance was 92% (Mengistu, 1998, Tamiru, 1998).

Most of the micro financing schemes in Ethiopia provide loans to organized members who are not required to put up physical collateral but operate in a group mechanism in which risks of non-repayment are transferred to the group. Essentially, most micro financing schemes in the country have with slight modifications adopted the Grameen Bank micro credit mechanisms. On the other hand ACORD's approach is different from what other local and international NGOs are following. Most Micro-financing institutions in Ethiopia seem to follow the conventional Grameen Bank – type credit management and operations.

It appears that no body has discerned the possibility of using traditional community based organizations (CBOs) like *iddirs, iqqubs, and mahbers* in financial intermediation for small loan users (particularly the poor). Agency for Cooperation in Research and Development (ACORD), an international NGO, however seems to have noticed this gap and has embarked on to development initiatives that aim at reducing poverty in Dire Dawa, Addis Ababa, Gambella and Shashemene. One of its efforts hovers around micro credit rationing for the poor through *iddirs* as intermediaries. The question now is, can ACORD make a sensible and sustainable stride towards reducing poverty through *iddir*s as media of intermediation given their basic roles and with out arresting the social responsibilities they are put up for. This research, therefore, looks at the institutional sustainability of ACORD's credit program and its impact on borrowers in Dire Dawa

The fact that ACORD operates through the informal financial sector (the *iddirs*) makes it interesting in that if the use of such social networks has exhibited some elements of sustainability particularly with respect to institutional and borrowers viability without undermining the other roles that these *iddir*s are playing, then it is worth replicating the scheme rather than making a direct copy of the Grameen Bank styles.

ACORD and Microcredit Operations in Dire Dawa:

a\ Program Area and context:

Dire Dawa is situated in the eastern part of Ethiopia 515 kilometers from Addis Ababa. The town was founded at the turn of the century following the construction of the Ethio-Djibouti railway. The climate is generally warm and the rainy season is between June -August. According to the 1994 census, population of the town was estimated at 200,000 with 52% female. Dire Dawa is a multi-ethnic town with the Amhara comprising 35%, the Oromos 33%, the Somalis 17% and others. There is a considerable degree of intermarriage and most people join mixed social institutions like *iddirs*, *mahbers*, etc.

The town has 4 *woredas* with about 24 *kebeles* one of which (Melkajebdu) is included very recently. Trade is the town's most dominant economic activity. Coffee, livestock, chat (a mildly stimulating leaf), fruit and vegetables enter the town from the highlands for the town's consumption and onward transfer to Djibouti and Somalia. From the other end, notably from Djibouti and Somalia, illegally imported manufactured products like electrical and electronics equipment, food, clothing, etc. used to enter the town but presently contraband operations are drastically mitigated due to stringent control by public authorities.

Dire Dawa is not as lively as it used to be with respect to its economic transactions. Life is becoming more difficult for many people due to tight regulations on contraband trade. This has particularly affected the Somali community and has resulted in a serious knock on effect on the rest of the town's economy. Demobilized soldiers, retrenched workers from public enterprises, and administrative weakness particularly during the initial years of government change, which had an adverse effect on potential investment, have all contributed to the aggravated poverty situation in the town.

ACORD Dire Dawa Urban Development Program started in 1995 in response to the scaring poverty situation in Dire Dawa. The program was designed in line with ACORD's philosophy that indigenous community based organizations (CBOs) like *iddirs, mahbers* which are meant for mutual support during burials, weddings, etc. can play as entry points in development initiatives and poverty-reduction efforts. The prime target clients in the *iddir*s are poor women and women-headed households.

Before operationalizing the program, ACORD conducted a survey of poverty targeting and involved the community in Participatory Wealth Ranking (PWR) exercises. Accordingly, the community classified the 23 *Kebele*s in Dire Dawa into "very rich", "rich", "middle", "poor" and "very poor" and recommended coping mechanisms. Following the PWR exercises 10 out of the 23 *kebele*s were identified as poverty riddled neighborhoods and were taken as program target areas. These are:

1. *Kebele* 01 (*Goro*)
2. *Kebele* 02 (*Sabian*)
3. *Kebele* 07 (*Mebrat Hail*)
4. *Kebele* 11 (*Filweha*)
5. *Kebele* 12 (*Addis Alem*)
6. *Kebele* 13 (*Gende Gara*)
7. *Kebele* 14 (*Kebri Jole*)
8. *Kebele* 21 (*Haffat Issa*)
9. *Kebele* 22 (*Police Meret*)
10. *Kebele* 23 (*Gende Gerada*)

These *kebele*s when targeted as program areas contained about 54% of the town's residents. After proper targeting and needs assessment was done, ACORD unleashed a four-year program (1995-1998) whose over all objective was to address the needs and improve the conditions of the poor by intervening through community based organizations and structures with special focus on women (ACORD, 1994b).

The program contained five components whose specific objectives are as follows:

Table: 1.1.2.1 Program Components and Objectives of the Dire Dawa ACORD Initiatives:

Program Components	Specific Objectives
1. Development Grant	-provide revolving credit fund (RCF) for on-lending by *iddir*s -provide grant for joint income generation and/or infrastructure projects
2.Training & Animation	-build-up institutional capacity through training and animation in areas of management, entrepreneurship development, fund raising , group dynamics, saving and credit, etc.
3. Gender	-enhance the role of women in local institutions and create an overall awareness in the community through related program components (linkage, training, credit and research).
4. Linkages	-facilitate networking among *iddir*s for the formation of user-friendly associations and generate linkage between *iddir*s and local government institutions.
5. Research	-encourage research activities in areas of poverty reduction, gender, microcredit and program related initiatives.

Source: ACORD Dire Dawa, Program Phase Review 1998

Inspite of the fact that the five program components are interrelated and hence collectively or solely target poverty alleviation, this research's interest is limited to *iddir*s credit operations. ACORD calls the program component as CBO-RCF.

b\ *Iddir*s and the Revolving Credit Fund (RCF) Scheme:

ACORD's RCF scheme for poor *iddir*s in Dire Dawa is one of the poverty reduction program components. As per ACORD's census on iddirs in Dire Dawa, it was found that there were about 334 iddirs with a membership size of 21000 approximately comprising of 48% of the town's population (Tesfaye, 1999). ACORD defines iddirs as groups of people organized under traditional or contemporary lines to address their common interests through structures they have designed (Howes and Albaladejo, 1998).

ACORD operates through existing social networks particularly the *iddirs.* It provides financial grant to poor *iddirs* the size of which reaches to the tune of 85% of the total *iddirs*–owned loan portfolio. The balance is usually contributed by the *iddir* members themselves. The rate of interest on loanable funds, the term to maturity, the loan administration procedures and other operational rules are all devised by the *iddirs* themselves through members' discussion and general consensus. ACORD does only the funding, the periodic evaluation and provides some technical support if need be. Otherwise, all responsibilities from loan provision to repayment are discharged by the *iddirs* themselves. Since 1995, ACORD has injected a grant of about Birr 1,149,500 to 100 *iddir*s with a total membership of 3784 in the RCF scheme and the *iddir*s have contributed a total of Birr 205,244. To date total loan disbursed is about 4.7 million Birr from which women beneficiaries had access to 70% of the revolving credit. Loan clients including repeat-loan beneficiaries have reached 7318 (75% women). Average loan size per member has increased from Birr 255 in 1995 to Birr 880 in 1999. Cumulative members plus groups savings is estimated at about Birr 0.4 million. Total loan defaulted plus loans in arrears are about 8.8% of total loan disbursed since program inception. Regarding the financial performance of the *iddirs*, it appears that they are in good shape. Net income as of December 1999 is close to Birr 0.04 million. Along with the benefits accrued to each *iddir* member, all *iddirs* have managed to increase their capital and assets level as of starting this program; and this has enabled them to discharge their traditional insurance roles in a much better efficiency. Before the RCF scheme, the surveyed *iddirs* had far lower capital than what is shown in the annex. As regards interest charged, it is interesting to note that different rates are applied in different *iddirs*. About 4 *iddirs* charge below 10%, while 26 *iddirs* charge rates between 11 to 20 percent, 62 *iddirs* charge between 21-30 percent and 9 *iddirs* operate at above 30% interest rate.

The fact that ACORD's *iddir*-managed microcredit operation has provided financial services to the poor with encouraging results is naturally of interest to research undertakings since it is carried out through existing social infrastructure like *iddirs*, *mahbers*, etc. The issue of institutional sustainability is however, worth considering along with the program's impact on its clients' well being.

Hence, it is deemed that this research would provide some hints on institutional and borrowers viability in pursuing a successful micro-credit operation using existing traditional networks particularly the *iddir* which as Dejene (1993, P. 35) has complemented it as attractive for it is naturally appropriate, flexible, easily accessible and cost – effective.

1.2. Statement of the Problem:

The informal financial sector in Ethiopia includes among others the "*Iddirs*" which are kind of traditional insurance schemes that provide financial support, burial and condolence services to the relative(s) of the deceased.

Along with carrying out the tasks they are set up for some *iddir*s have been observed performing certain development activities among which are construction of roads, schools and installation of public utilities etc. (Dejene 1993). The roles and contributions of the informal financial institutions like *iqqubs* and *iddirs* to the development process of Ethiopia is apparently belittled for there is usually no count of these informal financial institutions in policy formulations and overall development plans.

ACORD's micro credit approach is apparently different from what most micro-financing institutions are currently doing in the country. While ACORD operates through existing traditional social structures, the others have more or less replicated the Grameen Bank conventions. Inspite of the fact that such innovative approach by ACORD (using the *iddirs* for development) is commendable, it is worth measuring the performance of this initiative from the perspective of its impacts on borrowers and its sustainability.

The involvement of the informal financial sector in organized micro credit operations is alien to Ethiopia. There is hardly any one *iddir* in the country that has opened up a micro credit window to its members other than playing the conventional role that it is put-up for (like providing burial, condolence etc. services).

It appears very cute for ACORD to envisage the possibility of utilizing existing social infrastructure like *iddirs* for organized micro financing. The very stark advantage in resorting to traditional social infrastructure like *iddirs* and *iquubs* in the strive against poverty is the fact that these networks can survive adverse policy or system changes which formal institutions can not surmount. This however does not mean that the informal financial sector is without its limitations. Organized financial intermediation, trained and system oriented management, financial innovation, liquidity, etc. are among the elements that these networks lack. Inspite of the fact that ACORD's initiative in gearing the *iddir*s in Dire Dawa towards micro-financing in order to alleviate poverty and impact income changes is commendable, it appears worth measuring the performance of the credit program both from the angle of its impacts on borrowers and the repayment on extended loans.

The very main issue that this paper treats is whether using *iddirs* in micro financing has impacted positive welfare changes, given the limitations that such traditional networks usually face. If such community based organizations like the *iddirs* that ACORD has used for micro-financing have performed as expected without their social roles mitigated, then it seems worth recommending that such networks can be resorted to such tasks rather than setting-up the

Grameen type of credit programs whose administration and operational costs are much higher along with their vulnerability during policy or system changes.

Thus, this paper intends to measure the impact of ACORD's micro-credit initiative through the *iddir*s in Dire Dawa along with evaluating the institutional viability of this program. Besides, the determinants of sound loan repayment are assessed in the research along with the issue of information asymmetry in the financial services provided by the *iddir*s.

1.3. Objectives of the Study:

1. To assess the impact of *iddir*s-managed micro credit operations on program beneficiaries along with analyzing the repayment performance and its determinants.
2. Evaluate the institutional viability of *iddirs* owned micro–financing operations, and
3. Asses the existence and extent of information asymmetry that causes adverse selection & moral hazard and suggest better ways of streamlining micro- credit resources through informal financial sector operators especially the *iddirs*.

1.4. Significance of the Study:

Iddirs normally play the role of insurance in our country. For the poor and the commoners they are more practical and meaningful in providing mutual assistance services during particularly bad times like death of a close relative. As Dejene has put it (see Dejene p.35, 1993):

" People from all types of socio–economic backgrounds participate in the iddir. The insurance system, on the other hand is limited to high- income households seeking insurance policies for a definite purpose such as ensuring private houses or cars".

The involvement of *iddirs* in providing credit intermidation in the country had so far been alien. The initiative taken by ACORD in resorting to such a strong traditional network is apparently an innovation. The assessment of the micro- credit operation of the Dire Dawa ACORD funded-*iddirs* is significant for the lessons can be transmitted to donors, public sector development agencies and policy makers.

On the basis of the findings regarding the impact & institutional sustainability of the *iddirs*-operated micro credit program in Dire Dawa, other donors and microfinance operators can pick up some relevant information and will be able to use traditional social infrastructures (like *iddirs*) in their strive against poverty through small loan programs.

1.5. Limitations of the Study:

The concept of program sustainability is vital in the evaluation of micro credit programs. Sustainability implies the potency of the credit scheme to provide the required credit services and pursue all other relevant activities that help fulfill program objectives. As indicated by various literatures sustainability includes such things like: (see Khandker, Khan, Khalily P.32, 1995).

a) Fostering organizational development given government policies and costs $\rightarrow$ institutional viability.

b) Operating efficiently, given its program design and institutional framework

→ financial and economic viability.

c) Generating sustainable benefits for the poor → borrower viability.

Though sustainability as indicated above encompasses institutional, financial, economic and borrowers' viability, this study is confined to evaluating only institutional and borrowers' viability. The limitation of the study therefore is that it refrains from conducting a test of financial and economic viability of the ACORD-funded *iddirs* micro-financing scheme in Dire Dawa. In the above respect, though the study is partial, would provide some important insights as to whether the use of the informal financial sector operators like *iddirs* in micro financing is institutionally appealing and has impacted positive shocks on borrowers particularly with respect to income, savings, nutrition health and educational services.

CHAPTER TWO

Review of the Literature:

2.1 Theoretical Literature:

2.1.1 The Informal Sector:

It is said that no sharp, clear and workable definition of the informal sector exists and that it has proved hard to delineate the domain of the informal sector from that of the formal sector of the economy (Khundker, 1988). However, every country maintains a working definition for the informal sector such that these definitions are as much pertinent to the level of development the country has attained.

Fidler and Webster, (1996) define the informal sector as the smallest enterprises, typically those with ten or fewer employees, the vast majority of which are one person businesses with few wage workers. Informal sector enterprises, which can otherwise be called micro enterprises generally, share similar characteristics and business conducts. With respect to the characteristics of the informal sector Fidler and Webster (1996, p 5) state that they are small scale in operation and resort to labor intensive mode of production. Low fixed costs, use of informal credit sources and family labour, recycling of goods and lack of wage employment are among commonly noted characteristics of informal sector operators.

The contribution of the informal sector to the economies of poor countries in the perspective of job creation and small business incubation can not be overlooked. Regarding the significance of the informal sector researchers and development specialists have emphasized that the sector plays quite an important role in job creation and is an incubator of small and modern enterprises. Fidler and Webster (1996, p 6) characterize the informal sector as a giant sponge absorbing much of the shock of periodic economic contraction by soaking up excess labour and by providing second incomes to individuals whose real incomes have been eroded by inflation and public spending cut backs.

The notion that the informal sector is a sound job creator and business incubation platform is however being challenged as of recent. Some researchers argue that net job creation by the informal sector has increased very little and to the extent a growing body of research exposes that few micro enterprises become small and medium businesses, discrediting somewhat the notion of the informal sector as incubator of the formal sector (Fidler and Webster, 1996).

Nevertheless, the existence of the informal sector in the face of underdeveloped formal sectors in developing countries has continued and much is relied upon the informal economy particularly in employment and poverty alleviation perspectives. Concerning the importance of the informal sector Khundker (1988, p. 1264) wrote:

> *" One salient feature of most underdeveloped countries is the sustaining of these small scale ventures and also the increase in their numbers in response to increased threats of unemployment. It is this scenario that has forced economists to abandon the world of Lewis where the traditional sector is not dynamic, and growth is guaranteed by increased inequality and concentration of policy efforts at the modern sector. Studying how productive activity is organized and consumption needs met in the lower strata of society takes on an important dimension, when such activities do not vanish in the presence or absence of growth."*

Despite its important roles in the economies of developing countries, the informal sector is faced with a number of constraints. Easy entry of operators into the sector and the need for small start-up capital apparently makes the world of the informal sector a joy. However once one goes into the business, there usually follows the need for additional resources and skills which are usually in short supply. Webster and Fidler based on findings from field surveys state that the informal sector faces critical financial and non-financial constraints that constrict the operations and growth of enterprises.

Among the non-financial constraints that hamper the growth and smooth operation of enterprises in the informal sector Webster and Fidler (1996, p13) listed the following according to importance. Note that these findings are based on surveys conducted on West African Informal Sector Operators and are taken to hold true for most Sub-Sahara African countries as they have more or less similar socio-economic settings.

- Lack of demand for their products
- Problems of marketing
- Lack of product differentiation and limited skills
- Poor infrastructure
- Legal & Regulatory problems

The other set of problems from which the informal sector suffers comprises of financial constraints. Lack of money, insufficient working capital and absence or limitations of sources of finance are the main constraints of the sector in the financial sphere. In relation to this Webster and Fidler (1996, p.15) state that personal savings and loans or gifts from family provide start-up capital, but microentrepreneurs typically experience shortages of working capital within months of start-up. This, together with irregularities with raw material supplies, undermines their ability to respond to market demand.

In the financial sphere, the informal sector is not only faced with lack of finance but as well secure places to deposit their savings when they have any. Lack of access to the formal financial infrastructure and weak financial intermediation to the sector thereof are problems hampering the smooth operation of informal sector entrepreneurs.

2.1.2 Credit and Poverty Reduction:

Poverty has nowadays become the primary concern of developing countries. Most developing countries were forced to embark on to painful structural adjustment process in the late 1980s due to unsustainable external deficits.

The economic reforms underwent by these countries created important distribution effects at the local level. Garson (1999, p.1) says, following the reforms, many people lost their jobs and became poor and excluded as a result of measures taken to downsize public administration and privatize public enterprises. Though changes in macro economic policies as reflected in structural adjustment programs are taken, as a panacea to the economies of developing countries poverty is not reduced to the extent it was expected.

The issue of poverty reduction has to be addressed after defining what poverty means and who the poor are. Unfortunately, however, it is not that easy to capture the concept of poverty at micro level, though it is possible to describe it in broad macroeconomic terms. In light of this Garson (1999, p.3) states that the term "poor" often refers to a feeling or perception, a subjective approach that is difficult to communicate to others and one that cannot be used either to identify those who can be called "poor" or to measure the impact of actions developed to counter poverty.

Abebe Shimeles in his paper "Poverty Measurement and Analysis" indicates the difficulty of making a choice of an appropriate indicator for poverty. He states that the choice of an appropriate indicator to capture the many faces of poverty remain elusive. While some indicators label an individual as poor another indicator can put him in the non-poor category. The common indicator chosen is the level of income or expenditure of a household (Abebe Shimeles, 1998)

An operational and comprehensive definition of poverty has long been needed to fight poverty in a more effective way. Such a definition is required to provide the criteria to identify who is poor and how to measure the progress made in lifting the poor out of poverty (e.g., identification of levels or degrees of poverty, priorities assigned to each level). The search for a new conceptual framework to define poverty was facilitated when the analysis of poverty became centered on the poor rather than on the abstract notion of poverty itself. The people-centered approach considered that standards of living, when appropriately defined, could provide a global yardstick against which poverty could be measured. The standard of living of an individual or a household is considered to be composed of two elements: direct consumption of goods and services and non-consumption activities related to services pertaining to health, education, housing, etc. Total real expenditure is the most practical, quantitative proxy for the direct-consumption element. Non-consumption activities, on the other hand, are aggregated in the non-quantitative concept of basic needs (See Garson, 1999).

Defining poverty as a combination of low income and unsatisfied basic needs meets the requirement for comprehensiveness mentioned above. The traditional income-based definition is thus broadened to include the need to improve the living conditions of the poor who are believed to benefit less than others from the services provided by public infrastructure in the areas of health, education and housing. While basic needs themselves are unquantifiable, indicators can be defined to measure the level of satisfaction of an individual's basic needs, the majority of which are addressed by governments (Garson, 1999, p.4)

Anti-poverty policies need therefore to propose ways and means to address two issues: how to increase the revenue of the poor and how to meet more of their basic needs.
This, in turn, calls for a differentiation between two categories of the poor. Some are able to increase their income by themselves; others cannot. If appropriately assisted, the poor belonging to the first category could, by themselves, create activities that would enable them to move closer to or above the poverty line. Those in the second category would be unable to do so and would need to be financially supported permanently by governments. The latter category would include the poor who have no capacity to undertake any economic activity, whether because of a lack of personal skills or because they are so destitute that they are in no position to develop any meaningful economic activity in the environment in which they live. Those in the first category have been called the "entrepreneurial poor." The entrepreneurial poor do not need assistance for themselves, but they do need help in setting up an activity that

will eventually increase their income. In particular, they need assistance in accessing the resources required to develop this activity. Credit is often but not always among those needed resources. The non-entrepreneurial poor require direct assistance to survive.

Credit is part of the financial intermediation process through which savers' resources are mobilized and distributed to borrowers. Credit is generally believed to play a meaningful role in poverty reduction as it enables the entrepreneurial poor to start up new businesses or expand existing ones. According to the 1981 Reserve Bank of India's report (Pulley, 1989), the poor are classified into three categories: those who would need only credit to undertake an economic activity that would eventually lift them out of poverty; those who would need credit and a capital subsidy to undertake such an activity; and those who would remain poor, thus always requiring direct assistance through subsidies and welfare.

Credit is considered as an instrument that allows the poor to establish a new business or expand an existing one (Pulley, 1989). Garson (1999) shows two approaches to credit intermediation for poverty reduction. These are "the income-generation " and "the new minimalist" approaches. The income-generation approach to reduce poverty makes sure that credit is being used by borrowers to develop the activities required to increase their revenue. On the other hand the so-called new minimalist approach to the role of credit in poverty eradication holds that the provision of credit to any poor person able to repay a loan is in itself enough to fight poverty (Rogaly, 1996). The new minimalists argue that borrowers should be allowed to do whatever they think is expedient and viable. Since money is fungible, new minimalists argue that the ultimate allocation of borrowed funds is never known by the lenders.

Options between the income-generating approach and the new minimalists approach depends on the environments in which the poverty-riddled population finds itself. The new minimalist approach works better if based on a law of large numbers. According to the minimalists, credit extended to the poor increases income even if some use the credit to immediate consumption. The economic activity of the area where the poor person resides being diversified, even credit supported consumption ends up having a positive impact on some form of production. The poverty reduction objective, in the philosophy of the minimalists, is achieved when credit-delivering institutions are made sustainable through servicing a large number of borrowers. The new minimalist approach, therefore, gives more focus to the institutions delivering financial services rather than to the poor benefiting from the services of these institutions (Garson, 1999, p.8).

Despite the fact that credit plays a role in poverty reduction, it has certain problems stemming from features of the credit market. Credit markets unlike the goods market are pervaded with the problems of information asymmetry (imperfect information). The prevalence of imperfect information in these markets entails market failure. Regarding this Besley (1994) states that information problems that cause market failure from the perspective of constrained Pareto efficiency are reflected through adverse selection and moral hazard. The two main categories of information problem in the credit market are thus adverse selection and moral hazard, which are ex-ante and ex-post respectively.

The theory of credit markets has exhibited major advances in the past decade. The theoretical advances in respect to the credit market have evolved from a paradigm that emphasizes the problems of imperfect information and imperfect enforcement (Stiglitz et al, 1993, p.37). As put by Stiglitz (1993), lending entails the following:

a) The exchange of consumption today for consumption in later period.
b) Insurance against default risk.
c) Information acquisition regarding the characteristics of loan applicants (the screening problem)
d) Measure to ensure that borrowers take those actions that make repayment most likely (this is the incentive problem) ; and
e) Enforcement actions to increase the likelihood of repayment by borrowers who are able to do so.

The modern analysis of credit markets from the perspective of imperfect information theory has its origin in the works of Jaffe and Russell (1976), Ketor (1979) and Stiglitz and Weiss (1981). The credit rationing models of the modern days revolve around the concepts of imperfect information, which captures the problems of adverse selection, moral hazard and monitoring costs.

Adverse Selection: is an incident that occurs due to the inability of the lender to sort out the particular characteristics of borrowers. Lenders as a result decide to reduce the amount of loan issued and hence credit is rationed. Jaffee and Russell (1976) analyze a credit market model in which two kinds of borrowers, "honest" and "dishonest" exist. Ex-ante both types of borrowers are apparently identical to lenders

In deciding to repay or default, the borrower considers the cost of default, i.e., loss of collateral, social sanction, loss of future access to credit, loss of reputation.

The typical framework for analyzing the adverse selection problem as Besely (1994) puts it goes as follows. Assume that lenders' funds are allocated to risky projects where the borrowers do not earn enough to repay their loans. Suppose as well, that funds are lent at the opportunity cost of funds to the lender. Since lenders sometime lose money as some individuals fail to repay the former tend to charge a risk premium above the opportunity costs. This move of raising the interest rate to withstand losses however has an adverse effect to the lender.

Supposing that all projects have the same mean return, differing only in variance and all borrowers assumed risk neutral, the adverse selection problem is then encountered as individuals observe differences in the riskiness of their projects. To increase interest rate to discourage defaults, results in the dropout of those borrowers with viable projects and hence likely to repay. A lender, therefore, may be better off rationing credit at reasonably lower interest rate rather than pushing the rate up.

Besley argues that a credit market with adverse selection is not efficient. The incidence of adverse selection forces the lender to look for a means of separating borrowers into different groups on the basis of their repayment probabilities. One device for screening out poor-quality borrowers is to use a collateral requirement (Stiglitz and Weiss, 1986). Scarcity of collateral and the enforcement problem (difficulty of foreclosure) on the other hand makes the sorting problem very serious. Adverse selection examined in the context of Stiglitz and Weiss model, therefore, argues in favor of government intervention on the grounds of market failure (Besley, 1994, p.36).

Moral Hazard: the problem of moral hazard arises in the credit market when lenders fail to discern the actions of borrowers. Moral hazard can arise in credit markets when the behavior of the borrower is influenced by the terms of the loan contract (See the Credit Channel of Monetary policy, p.293). The risk of borrowers is normally a stake shared by both the borrower and the lender. If the project fails and the loan is not repaid however, the lender will be obliged to bear the cost of the loan. The borrower, therefore, has an incentive to take risks as he thinks that if the project succeeds he and the lender benefit, and if it goes bust the lender goes bust.

Stiglitz and Weiss elaborate the concept of moral hazard in their model where all projects have identical mean returns with different degrees of risk. They argue that an increase in interest rates negatively influences the behavior of borrowers thereby reducing their incentive to take sensible actions conducive to loan repayment. Riskier projects, therefore, become more attractive at higher interest rates for the borrower will prefer a project that has a lower probability of being repaid (Besley, 1994, p.37).

2.1.3. Informal Finance and Local Financial Intermediation:

2.1.3.1. Features of Informal Finance:

Among others, the informal sector of a country includes the informal financial operators which work sideways with the formal financial intermediaries.

Popiel (1994) defines informal finance as the one that comprises of all lawful but unregulated activities, such as rotating (and non-rotating) savings and credit associations (ROSCAs), like the tontines, njangis and susus in West Africa and the chillembas in East Africa, money lenders and money collectors and other providers of retail financial services. *Iddir, Iqqub, Arata abedari* can be incorporated into the above definition in the context of Ethiopia.

Informal financial operators are usually outside the purview of the legal, fiscal, regulatory and prudential framework of the monetary and financial authorities. As the operations of these informal and semi-formal financial institutions are small scale in terms of membership and scale of operation, their activities are of special importance to mobilization of retail savings (Popiel, 1994).

Informal finance is probably the sole source of credit at local level. The operations of the informal sector as Abebe Adera (1996) puts it, derive their rules and regulations from a country's culture and customs. Besides, transactions in the informal finance are pursued on the basis of trust and intimate knowledge of customers (See Abebe Adera, 1996). Despite the lack of aggregate statistics on the scope and share of informal and semi formal finance in

SSA, it is assumed that their share in financial intermediation is considerably high. Dejene (1999) reported from a study that 63% of total credit in Bangladesh and 70% in Malaysia comes from the informal sector; 87% of farm loan for Zimbabwe and 95% for Nigeria originates from the informal sector. Ethiopia's 78% of total agricultural credit is covered by the informal financial sector (Dejene 1993a).

The informal financial sector is of prime importance for the poor to whom the availability of credit is more important than its price. Informal and semi- formal finance is not however, without problems. Among the drawbacks that it is believed to have, are problems of economies of scope and scale, maturity transformation, spatial transfer of savings, predominance of cash transactions, maturity spectrum of instruments and operations, as well as shallowness of intermediation (See Popiel, 1994, p.55).

Informal financial institutions, mostly indigenous have survived various hurdles among which system and policy changes are the main ones. Some countries label credit provision by unregistered entities as illegal (see Thillerajah, 1994, p. 25,). Despite least support and at times harassment by public sector agents to this sector, it has continued to thrive as an important financial intermediary in Sub-Saharan Africa (SSA). Studies indicate that the informal financial sector though not recorded in official statistics, is larger than the formal institutions in most SSA countries in terms of both savings mobilization and credit provided to rural areas (Thilleirajah, 1994). This sector targets the lower income-bracket and the disadvantaged group as opposed to the formal financial sector. The following reasons are among the factors that drive low-income households and micro enterprises to utilize the services of the informal financial system both as savers and borrowers.

- Easy access, simple procedures, convenience and personal attention, confidentiality, dependability and timeliness
- Low transaction costs, low interest except from professional moneylenders.
- Proximity of facility to residence and flexible hours of accessibility
- Flexibility of instruments and terms as well as acceptance of personal guarantee as collateral
- Ease of exit and entry (See Thillairajah, 1994).

It is generally agreed that a conducive macro economic environment and an appropriate legal framework comfortable to the existence and growth of the informal financial sector along with the formal financial sector fosters the ability of the financial system to provide a strong financial intermediation. The growth of the informal financial system along with a complementary formal financial sector later on results in the graduation of the former into a modern formal sector as in Japan, Korea and Taiwan. In this connection Thillairajah, 1994 states:

> *"many ROSCAs have in course of time become part of the formal system as banks, building societies etc. as seen in Cameroon, India and the United Kingdom".*

As long as the formal and informal financial sectors operate in their areas of advantage, it is said that they are complementary; but where neither sector has an obvious advantage, both sectors compete with each other. The question of substitution and complementarity of the formal/informal financial sectors remains debatable among researchers.

In respect to the above dialogue Thillairajah (1994) states;

> *"When the two sectors compete more than complement each other in meeting the credit needs of the borrowers, the availability and terms of the two types of loans determine the choice of sectoral source. In this substitutable relationship, as formal loans become more easily available, they are likely to displace informal credit. This indeed is what has probably happened in the large number of SSA countries where subsidized agricultural credit has expanded in the last two decades, perhaps marginally reducing the share of informal credit. When informal lenders are not earning monopoly rents, and the markets are reasonably competitive promoting linkages with the informal sector (rather than offering competition) would be a more appropriate approach. When funds flow from one sector to the other through such linkages, the two sectors become complementary again"*

As has been stated earlier, the informal financial sector serves more of the financial needs of informal sector operators among which women are the beneficiaries. Since women face special constraints which men are not subjected to, they require the service of the informal financial sector more than their male counter parts. Women in developing countries are accorded with greater family responsibilities from managing the home affairs including children rearing to income generating. Women play social and domestic roles that have low rates of returns and high risks. The formal financial institutions have generally neglected poor rural dwellers, especially women, and as a result the latter are compelled to look for an alternative means of providing them with meager financial resources. The informal financial sector, in this respect, has become an accepted option for their financial services. Financial services to women are not without results. As Thillairajah (1994, p.107) has put it, support to women for income-generating activities would help to capitalize on the positive features of women's behavior with regard to finance - emphasis on savings, greater discipline in loan repayment and respect for group obligation.

2.1.3.2. Local Level financial Intermediation:

Financial intermediation whether at national or local level is nowadays an important impetus to economic growth. The new paradigm in respect to this gives a more subtle weight to the financial sector as opposed to traditional microeconomic approaches that consider the banking sector as mere intermediaries. Macro economic approaches before the McKinnon- Shaw era (Williamson, 1987) had regarded money, not banking, as important. Financial intermediaries were important only because they had the capacity to create money rather than because of any specific role they might play in the economy. For example, bank failures were considered important only because the collapse of the banks contracted the money supply and not because this massive institutional failure resulted in the disruption of the financial system (Friedman and Schwartz, 1963). At the field level in development projects, credit was considered as a mere input to be used to stimulate production and redistribute wealth (Long, 1990).

Mckinnon and Shaw, however, recommended a complete reversal of the above perspective. In their views, credit was not to be regarded as input but rather as an engine of growth. Financial systems were not to be considered as neutral elements in the development process bus as part and parcel of that process (See Garson, p.17).

After Mckinnon and Shaw, financial intermediation was recognized as a critical process that develops over time. Thus the financial sector has an active role to play that extends far beyond the supply of money.

Local level financial intermediation is of vital importance as one of anti-poverty policies in the developing economies. Financial intermediation at the local level enables the entrepreneurial poor to pursue income-generating activities and hence mitigate its poverty level. The main characteristic of local economies as Garson (1999) puts it is the structural fragmentation that results from isolation. Local areas are as well characterized by a higher level of poverty, a result of the isolation from the main markets and also, of a lack of local resources or the inability to exploit those resources owing to isolation.

Regarding the monetary situation at the local level, monetization does not occur as often as it should to keep the amount of cash in circulation at the optimal level. Banks are required to transform cash into deposits at the local level; yet there are few if any, commercial bank branches in such areas (Garson, 1999). As a result of low level of monetization, credit activities are said to be repressed at the local level.

While the fear of lending to small economic units plays a significant role in the reluctance of banks to make loans at the local level, the fear of becoming illiquid if deposits created by loans are withdrawn too quickly by borrowers plays a hidden but rather important role in shaping a bank's attitude towards lending. Credit repression at the local level is further aggravated by the geographic isolation of rural areas from the main centers of economic activities. Because cash circulating in the region is not captured by banks, the cash needed by banks for daily transactions must be brought physically from long distances. This makes it difficult to make prompt, timely adjustment of the money supply at the local level (See Garson, 1999, p.24).

The development of financial intermediation at the local level though required as an anti-poverty policy, it is not that simple in practice. The local level has its own peculiarities. The local level as Garson (1999) states is highly liquid, repressive in relation to credit activities and biased against medium-term lending. The Mckinnon-Shaw recommendations do not work when it comes to the situation at the local level. The nature of local-level financial specificities needs to be understood in order to design policies that develop and create financial intermediation in places where there is little or no monitization.

The market failure paradigm does not give an accurate picture of local financial specificities. The market-failure paradigm cannot be applied because in many places at local levels there is no market at all. Supply is weak or missing -very few bank branches operate, there is little lending operation and no saving mobilization. For many other reasons there is no explicit demand for financial services and yet the financial activity at the local level is quite high (Garson, 1999).

Financial exchanges at the local level are not open exchanges between market participants; they are rather closed exchanges between members of informal/formal groups or organizations. Those who provide microfinance services understand that local -level transactions are better harbored by closed groups or organizations than by open markets. In a situation where there is lack of financial markets, people have no way out other than organizing themselves into groups and internalize financial transactions. Even in a place where there exists a financial market as in semi-urban and urban areas but the transaction costs (collateral, formalities, etc.) are too high, individuals also seek to internalize transactions among their peers, thus avoiding markets (Garson, 1999). The New Institutional Economics (NIE) in connection to this recommends that local levels can be better understood by applying the internal-organization governance paradigm as opposed to market-governance. The NIE makes a local-level preference for internalization over market intermediation (Williamson, 1986). When shifting from the national to the local level, one would expect that there is a point beyond which markets fail to intermediate and organizations begin doing so. This limit is known as a frontier and is said to separate market intermediation from internal-organization intermediation. In theory market intermediation ceases to exist in remote and poor areas while in practice market and internal -organization intermediation co-exist in many areas (Garson, 1999, p.30).

2.1.4 Performance and Impact Measurement in Microfinancing:

Microfinancing services are delivered with the view to addressing the financial needs of low-income people. The financial services geared towards the poor are normally expected to bring about positive shocks in the lives of the credit clientele. It is thus, relevant to evaluate how well the designed objectives are met. The number of people served in a program and the quality of the services provided are vital issues that need closer scrutiny in microfinancing operations. In evaluating microcredit operations, one has to assess performance as captured by outreach and sustainability and impact in terms of borrowers' viability. As presented below, it appears worthwhile to look into the items reflecting performance and impact measurement in microfinancing like: outreach, sustainability, impact and tools of measurement.

Poverty Targeting: For better performance and sound achievements in the pursuit of microfinancing operations for poverty reduction, poverty targeting is an important task that has to be carried out ex-ante.

Active poverty targeting is deemed necessary for availing small loan services to the poor. There exists ample experience of embracing better off people in microfinancing, while the planned objective was to provide such services to the poorest.

Poverty targeting is seen as something impossible by many people on the grounds of cost and non-reliability of the tools used. Sorting out those families who deserve financial services with which they can increase their income and hence reduce their poverty level should be a prime task of any microcredit scheme. When poverty targeting is not done, small loans that were initially meant to address the poor end up in serving the better-off and probably the non-poor.

Unless we have the knowledge on client poverty-profile it is hardly possible to reach whom we want to reach. Thus, poverty targeting is undoubtedly the first step in creating a program that is designed to meet the needs of the poor. A focus on the poor on the other hand is inseparable with a foçus on women.

The targeting debate, though mostly favors the identification of the poorest sector of a given society for microfinance services, pragmatists tend to favor an approach that targets a mixture of clients, i.e. the poorest, the poor and also the non-poor. As long as the poorest are effectively reached in a "mixed" program, it is said that such microcredit programs may be able to expand faster and to reach larger members. Besides, such programs can enjoy cross-subsidizing the less profitable poorest clients from the lending to the more profitable non-poor (A. Simanowitz, 1999).

The methods effective in poverty targeting for identifying the very poor are those known as the CASHPOR House Index (CHI) and the Participatory Wealth Ranking (PWR). While the CHI method uses external housing conditions as a proxy for poverty, the PWR resorts to the community's own definitions and perceptions of poverty. The CHI is accepted as a cost-effective and powerful tool, but is only as good as the relationships between poverty and housing. On the other hand the PWR is said to be practically more complicated and needs skilled facilitators to find out results (See Simanowitz et al, 1999).

Outreach: In evaluating the performance of microfinance institutions one has to look into how well the objective of delivering financial services to low-income people is achieved. An evaluation of how successfully is this objective met, would measure levels of outreach (Fidler & Webster, 1996, p33). In this connection Fidler and Webster (1996) have the notion that most successful microfinancing institutions that have achieved depth in outreach do reach the poor with loans averaging 200-500 USD. Most microentrepreneurs require working capital loans with 12 months or shorter terms, simple procedures, few restrictions with respect to use of loans, repayment on frequent basis, loan guarantee requirements that match their capacities and continuous access to impressive scale and depth of outreach (Fidler and Webster, 1996)

Sustainability: Addressing the poor and the unemployed through micro financing of the formal or informal type is very important to the extent that the endeavor is sustainable. Support to informal sector operators or otherwise micro–entrepreneurs can be sustainable if demand driven services are resorted to. Demand–driven micro–finance services are deemed more sustainable and enjoy greater outreach than supply–driven institutions. Sustainability can be ensured through cost effective and convenient services. Sustainability can be ensured by offering demand–driven facilities, paying more attention to deposit mobilization, to the performance of financial intermediaries, to the lowering of transaction costs, to building sustainable financial services (Thillairajah , 1994).

A micro–financing program, whether formal or informal, is said to be sustainable if it can pursue its activities & provide the required services in a continued and objective – oriented manner. As Khandker (1996, p.38) has put it, four concepts are contained in the concept of sustainability, regarding micro credit programs. These are financial viability, economic viability, institutional viability and borrowers' viability. Programs are considered as financially viable if they are profitable and are economically viable if the profits generated cover the economic costs of subsidized funds (Khendker, Khalily, P.63, 1996). On the other hand borrowers' viability is measured through the economic and social welfare changes of members as well as their loan repayment performance along with their drop out behavior (See Khandker, Khalily, P.79, 1996).

Institutional viability in a micro credit program can be achieved if effective management, committed workers are put in an appropriate institutional framework which has the right incentive scheme and training facilities to its employees. Institutional viability is gauged by the ability in planning, designing, implementing, monitoring and evaluating program activities in a micro–credit program. Relevant indicators of institutional sustainability include the balance struck between social and financial objectives, the extent to which an institution is decentralized and representative of its clients, the effectiveness of staff training programs in transferring leadership and knowledge, and the ability of the institution to withstand negative external shocks such as macroeconomic instability and an imperfect regulatory environment. Whether it is formal or informal financial intermediation and without regard to scale, sustainability is a need to success. Thillairajah (P.99, 1994) elaborates sustainability in financial intermediation by stating the following:

> *"In seeking to achieve sustainability in financial intermediation and financial market development, consideration has to be given to the sustainability of the lender; the intermediary institution, the depositor, the savor, the borrower and the sector as a whole. If borrowers become chronically indebted, nothing else can be sustained. If savings can not be mobilized on a consistent and continuing basis there will not be resources to lend. If the lenders do not recover all the money they lend will soon cease to exist. If a financial intermediary can not fully recover the cost of mobilizing resources (money costs – interest paid to depositors, plus administrative costs of intermediation), the institution will soon have to shut its doors."*

In connection to the issue of operational and financial sustainability Fidler and Webster (1996) warn that three important factors have to be observed. These are the loan repayment rates, the scale of lending, and the interest rates charged on loans. Repayment rates of less than 95% are not acceptable. Economies of scale stemming from larger clientele are also deemed necessary. Interest rates, on the other hand, have to be based on the cost of loan delivery, rather than on prevailing rates of commercial banks.

Impact and Tools of Measurement: The issue of impact measurement in microcredit operations has always been an area of contest amongst microcredit practitioners. Microfinance specialists, in the extreme, tend to conclude that impact assessment studies are practically difficult and not be attempted (See Johnson and Rogaly, 1997, Cheston et al, 1999).

Since the intent of microfinancing being the reduction of poverty, impact studies of any microcredit program's prime focus is strongly tied to measuring changes in beneficiaries incomes. Interventions through microcredit operations are expected to reduce poverty by raising incomes (income promotion), increasing income and livelihood security (protection); or empowering people who lack control and choice in their lives (Johnson and Rogaly, 1997).

Regarding the problem of measuring impact Susy Cheston et al (1999) says that if we seek to alleviate poverty, and specially when we use scarce public funds to do so, we need to find some way of finding that we are achieving our objective. Credit is a two-edged tool. To a borrower, credit means debt, and debt can destroy as easily as it can build. If our objective is to pull people out of poverty, we have to check that they were poor when they started borrowing and are less poor after borrowing. In this connection Cheston et al state (1999):

> *"Just knowing that we increased the debt of 100 million people will not tell us that we accomplished what we set out to do, even if we delivered that debt in a financially viable manner"*

Along with the argument that poor people "are not static objects to be impacted upon" by credit programs (Abdullah, Ruthenford and Hossain, 1995) developing a reliable instrument of impact measurement requires a change of the existing paradigm. The current impact measurement paradigm as stated by Cheston (1999) is that of the donor-initiated academic impact study whose objective is to prove whether or not the programs funded by the donors did any good. In other words the usual practice in impact assessment is to produce information whose primary objective is to justify donor money that has already been spent or to direct the spending of donor money (Cheston et al, 1999).

Assessing impact of microcredit operations has a number of methodological problems. Johnson (1997) spells out the following problems in impact assessment of NGO-funded financial services:

- Respondents may give false information if loans are used for purposes other than the stipulated ones.
- Establishing a causal relationship to the actual loan in question involves knowledge of all the beneficiary's sources and uses of funds.
- It is difficult to establish what would have happened if the loan had not been made

Some microcredit specialists argue against conducting extensive impact measurement on the following grounds (See Cheston et al, 1999):

- Studies that show changes in income, assets or employment prove that something is different in the lives of the clients, but they do not prove that the lending program caused the change.
- Rigorous impact studies with control groups and information baseline are expensive.
- The market place provides reasonable proxies for impact data. This implies that if clients of a microcredit program pay the full cost of the service they receive and pay back their loans on time and regularly come back for more loans, then the program must have resulted in a positive impact.

  Client payback→Client perception of value → Client satisfaction → Positive impact.

  Therefore, testing these assumptions does not produce information that satisfies the large costs involved.
- Impact studies are often used to justify development expenditures for institutions that do not meet market place standards of profitability and high portfolio quality.

Despite the above arguments against impact measurement, the problem with not measuring impact is an issue worth considering. While the above argument against impact measurement appears logical, it still fails to answer the question of whether the money spent on microcredit achieves the objective of poverty reduction. Besides, it does not provide any assistance in assessing different types of microcredit delivery systems. Two microcredit institutions both equally profitable and serving the same number of clients for example might have a wide difference in their impacts. While the one could sound financially sustainable but with marginal and scattered impact on its clientele, the other could bring widespread positive changes to the community along with building leadership skills and social networks among its clients. To discover such realities, we need measurement studies. It has to be understood that profitability and portfolio quality are important measures of the institutional health of an organization, but they do not measure client health or well being (Susy Cheston et al, 1999)

Impact studies help make critical strategic decisions. Such things like which client sectors to work with, which of ones lending products are working, what barriers are faced by clients, why repayment rates have gone down, why people leave our programs, which clients are receiving more benefits and which ones are receiving less, and how best to expand our programs are handled by resorting to impact studies (See Cheston et al, 1999).

In conducting impact assessment, one has to resort to one or more of the existing tools of measurement. There are quite a number of impact measurement tools for microcredit operations. It is believed that there is no single tool that fulfills our assessment needs. The use of a combination of the existing tools is of greater advantage to the assessor. Among the existing impact assessment tools for microfinancing, the major ones are listed below with their relevant features.

Table: 2.1.4.1 Impact Assessment Tools for Microcredit Operations:

No.	Name of Impact Assessment Tool	Developer	Implementing Organization	Description
1	Integrated Learning System (ILS)	H. Noponen	Friends of Women's Wold Banking, India	An internal, decentralized, integrated monitoring, evaluation, management and training system that can be used for decision making at all levels, including clients, field workers, and donors.
2	Client Monitoring System	MSI, L.Blank and R.Webster	Workers Bank, Jamica	An access database that provides data on health, education, and financial status of individual lending clients at the time of the first loan and at subsequent points thereafter.
3	Practitioner-Led Impact Assessment	SEEP, Mknelly, Garber, Horn	ODEF/Honduras and Kafo Jiginew/Mali	A multi-component impact analysis including a cross-sectional comparison of clients and non-clients; in-depth interviewing of samples of multi-year clients; a survey of ex- clients; and focus group interviews on client satisfaction.
4	Client exit Survey	C. Garber	AGAPE, Colombia	A standard interview given to group loan clients when they leave the lending program.
5	Impact Assessment Study	M.Sultana and A.Nigam	Family development Fund, Egypt	Measures improvements in material well-being, access to basic social services, improved status of women, and institutional sustainability of the program using individual interviews with structured questionnaires, focus group interviews and case studies.

Source: Cheston, et al, 1999

A sound impact measurement and monitoring initiative does not rely solely on one tool, just as business managers utilize a set of measures for assessing current financial performance and predict future growth (Cheston, 1999).

2.2 Empirical Literature:

The provision of micro credit services to poor people in the rural economy and micro enterprises operators in towns is believed to primarily alleviate poverty and later on create a vibrant small to medium enterprise sector. Credit institutions are known to have played a part in increasing social welfare and contributing to development. Regarding micro finance however, it is only recently that it has gained prominence. Impact studies show that the successful ones have managed to increase the income of credit recipients, have created employment and reduced dependency on usurers. Among the many such credit programs, the famous Grameen Bank (GB), The Bedan Kredit Kecamatan (BKK) of Indonesia, Kenya Rural Enterprise Program (KREP), BankoSol of Bolivia can be cited. The GB has such important features that other countries can draw experiences from (see S. Thillairajah, p.82, 1994).

- Personal and individual attention
- Targeting the landless and the poor
- Using a group to encourage mutual responsibility
- Bringing the bank to the poor
- Training in bank rules

- Dedicated and localized bank workers
- Bank workers double – up as social workers

The GB's services are targeted to the needy and loan repayments are tailored to borrowers' financial capabilities. Peer monitoring and group joint liability along with repayment requirement as a condition for a repeat and larger size loan are among the mechanisms that contributed to least loan contamination and defaults. Though, GB is a success and a lot of its experiences can be absorbed, it is criticized in that it incurs substantial administrative costs; 18% of the value of the portfolio in 1986 and 15-25% in newly formed branches (S. Thillairajah p.96, 1994). An impact study conducted by the world bank on 800 borrowers of the GB has revealed that income of the credit recipients has increased by 28 % as a result of the credit scheme (Remmy, 1991). Regarding repayment performance, which mostly reflects positive impacts on borrowers, the GB exhibited about 98% (Bekele, 1996). Another impact study on GB conducted by Osmani (1998), on well-being of women, reported that participation in the credit program has a positively significant impact on house hold income of those women who are self-employed in non-farm sector. The study has as well secured results that indicate that women's participation in the GB credit program has a positively significant influence on bargaining power, autonomy, control over decision making (particularly on family planning), access to resources such as food and health care.

BancoSol of Bolivia is another good example of a successful private sector micro – financing institution that has evolved through experimentation and institutional innovation. The bank provides small size loans (average loan US $ 250) to self- employed individuals including poor street vendors and tradespeople at commercial interest rates (45% a year) and collects deposits from same client base. The bank has exhibited a repayment rate as high as 99% and this success record is a result of careful screening, small-group joint liability, quality service, perception of institutional continuity, and the use of profit criteria for lending. BancoSol is criticized for its high interest rates, which is more than double the commercial banks' rate. Its proponents say:

> *"Our rates are high because that is the cost of doing business. The big banks that charge supposedly low rates won't even touch our clients ... loans at artificially low rates of interest don't get paid back"(Thillairajah, p.80, 1994).*

Johnson and Rogaly (1997) report impact assessment findings and repayment performances of different credit schemes on the basis of conducted case studies. In this connection, they reported repayment rates of 95%, 100% and 82% for URAC of Mexico, SUNGI of Pakistan and CCC of Ecuador for the year 1995 respectively. Regarding impact on borrowers, URAC is found to have improved the livelihoods of members, while in the CCC of Ecuador which operates through indigenous community structures many members have managed to improve milk output and raised incomes (See Johnson and Rogaly, 1996 p.116).

An impact survey done on Mali's Kafo Jignew microcredit scheme with three sample groups i.e.; one-year clients, two-year clients, and incoming clients, showed positive impact at various levels, including enterprise, household, individual and community (Cheston, et al, 1999). Another study (Cheston et al, 1999) done in Egypt in 1998, had interesting findings such that credit activities have triggered borrowers' income and resulted in increased spending on children education and family subsistence.

Loan repayment rates in microcredit operations are mostly found to be far better than commercial banks performances. Khandker et al (1995) states that commercial banks and other development finance institutions loan recovery rates range between 25-50 % while microfinance banks like the GB exhibited 95 % and above.

Loan repayment performance is affected by a number of factors some of which are believed to negatively influence repayment while others are of positive impact. Khandker et al (1995) reported that loan default is not completely a result of borrower's erratic behavior. Based on a study of Grameen Bank's microcredit operation at branch level, it was found that factors like roads, electrification, educational infrastructure, borrower's age, incentives, etc. had a strong bearing on repayment performance. Kashuliza (1993) found positive and significant relationships between borrowers attitude to repayment and repayment performance based on a case study in Tanzania. He also reported positive relationship of repayment with farm income and negative but statistically insignificant relationship between household size and repayment performance.

Kulundu (1990) in his study on Kenyan small holder farmers using cross-sectional data found that loan diversion, use of purchased farm inputs, farm income, attitudes to repayment have statistically significant impact on loan recovery; whereas crop performance, off-farm income and farmers education proved to have statistically insignificant influence on loan repayment. Regarding loan diversion, his results showed that inadequate supervision and technical support as well as delay in loan issue significantly influence it.

As regards institutional viability in a microcredit program, Khandker and Khalily (1996) reported that the Bangladesh Rural Advancement Committee (BRAC) was so successful in that it has expanded from a charitable organization to a modern development organization. BRAC 's success as an institution stemmed from its innovative management structure which is of a decentralized style emphasizing monitoring, evaluation and adaptability in decision making (Khandker & Khalily, 1196, p.51). Professionalization of BRAC's management is as well reported as an important component of institutional viability. BRAC's management style is developed by progressively changing in-house -training and expenditure on staff training accounted for about 4% of salary expenditure in 1990, 7% in 1992 and 4% in 1993 (See Khandker & Khalily, 1996). The fact that BRAC has a very competitive pay structure, incentive scheme and conducive work environment have greatly contributed to its institutional viability.

In connection to the problem of asymmetric information, Yaron (1992) on the basis of his study on four successful rural financial institutions in developing countries stated that these programs have managed to overcome the problem of information asymmetry by resorting to social structure, peer pressure and self-help groups. Yaron reported that the mentioned microfinancing institutions have been able to conduct appropriate borrower selection (exante) and enforce on-time repayments (expost) through the use of either existing social structures or by forming self monitoring peer groups. Identifying worthy borrowers and effecting on-time repayments are the two key areas where the problem of asymmetric information puts the formal rural financial institutions at a distinct disadvantage.

2.3. Literature on Ethiopia

Microfinacing is a recent phenomenon in Ethiopia. Both the urban and rural poor usually secure financial services from the informal financial sector operators like friends, *iddirs*, *mahbers*, *iqubbs, arata-abedari.* The impact of the financial services provided by this sector on credit beneficiaries has never been studied except that one may intuitively conclude that prudent loan users normally benefit from such financial services if loan terms and conditions are with in an acceptable range.

Despite the fact that formal microfinancing operations are a recent initiative, some researchers have assessed different programs and have come up with encouraging conclusions. Based on the MTDP performance, Tamiru (1998) reported an overwhelming increase in client size between 1994-1997 from 272 associations (one association has on average 30 members) to 978 and the number of towns covered in the service rose from 16 to 59 thus indicating program success and positive impact on borrowers welfare. Mengistu (1998) reported positive outcomes with respect to the microcredit operation of the MTDP as reflected by increase in the number of clients, better participation of women, increased level of credit ceiling (1000 to 5000 Birr), increased use of savings accounts.

In a descriptive study on the Amhara Credit & Saving Institution (ACSI), Zegeye (1999) reported a number of economic and social gains enjoyed by ACSI's clients in different parts of the Amhara region. Responses secured from 501 credit respondents indicate that 51% managed to generate an annual cash return of up to Birr 1000 as a result of their activities financed by the loan, 10% of the respondents generated Birr 1000-2000 per head per annum, and 13 % generated more than Birr 2000 per capita per annum. The rest 26% responded that they have enjoyed economic gains from the credit scheme in kind-like constructing or renewing a house, increasing asset holdings and household consumption. Zegeye also reported positive social shocks triggered by ACSI's credit operations. Out of the 501 credit - client respondents, 19% reported increased acceptance by the community, 21% responded as having enjoyed better medical & schooling facilities, 30% said that they have gained experience in financial management, 14% reported freedom from money lenders, 9% expressed family tranquility and happiness, 2% reported no change, and the rest 5% abstained from any response.

In a study presented to the University of Oxford, Desta (1999), reported positive impact statistics on ACORD's microcredit scheme through *iddir*s in Dire Dawa. As a result of increased income from the credit scheme, 70% of the previously poor *iddir* members improved their status to poor and 42% of the previously poor attained middle status. Other program impacts on borrowers particularly on women *iddir* members, among others, include improved capacity, confidence build-up and respect by the community. Desta also reported that in some households increased income of women credit beneficiaries has impacted diminishing contribution to household expenditure by some husbands.

Fantahun (1999) in his study of the impact of the Amhara Region Micro Enterprise Development Program (component of the MTDP) on the well-being of credit clients found a positive and significant relationship between credit delivery, training support to beneficiaries, repeat loans and increase in borrower's income. Fantahun, reported these findings on the basis of a sample of 248 credit recipients (65% women), 80 of whom had access to repeat loans, 20 had taken training.

Kassa (1998) made an impact assessment of the Southern Nations Nationalities Regional Microenterprise Project (part of MTDP) and conducted a non-parametric test for measuring the before and after the loan situation of borrowers. Using different proxy welfare measurements, therefore, Kassa has found the program as impacting positive shocks over the lives of the beneficiaries. Annual consumption expenditure of loanees has on average increased by 30.82%, 10.5%, and 19.5% in the first, second and third loan cycles respectively. Regarding medical expenditure, it was reported that a growth rate of 38.55%, 7.11% and 2.07% in the three loan cycles was exhibited respectively. Kassa also found that the first cycle borrowers exhibited a nominal annual increase of income by 53.6 % on average; whereas the growth in income for the second and third credit cycles was 24.35% and 14.45% respectively. Using Wilcoxon Matched Test, he rejected the null hypothesis at 5% level of significance and concluded that the average income of credit clients is greater after the credit than before the loan (See Kassa, 1998, pp.21-23)

Berhanu (1999) assessed the impact of POCSSBO's microfinancing operation on loan beneficiaries. Using Wilcoxon Matched Pairs Non-Parametric test, Berhanu assessed the before and after loan situation of beneficiaries with respect to income, savings, access to medical and educational facilities, and nutrition. The findings indicate that POCSSBO's loanees have exhibited improvements in all the mentioned welfare measuring proxies and hence he has rejected the null hypothesis at 1% level of significance.

In connection to loan repayment, most microfinance institutions in Ethiopia report a much better rate as compared to what the formal financial institutions report. Tamiru (1998), and Mengistu (1998), reported a 92% recovery rate for the MTDP, while Seifu (1998) reported 97.8% for DECSI. On the other hand Berhanu (1999) reported an 87% rate of recovery for POCSSBO - Addis Ababa, while Zegeye (1999) reported over 99% for ACSI.

Knowledge on determinants of loan repayment is undoubtedly important for it provides information to the lender on the incentives available for the borrower to comply with repayment schedules. Empirical studies in this connection are however limited in Ethiopia, though recently researchers are showing interest and hence carrying out relevant studies thereof. As regards the determinants of loan repayment, Mengistu (1998) conducted a study on the MTDP credit scheme for Bahir Dar and Awassa towns using a binomial probit model. For Bahir Dar Mengistu found out that expectation of repeat-loan and number of workers employed by the credit beneficiary are positively related to full loan repayment; while loan diversion and access to additional credit sources are negatively related to repayments. On the other hand, his findings for Awassa depict those variables like number of workers employed by the loanee; education and weekly repayment period have a positive impact on loan repayment while having a negative influence on loan diversion.

Berhanu (1999) analyzed the determinants of full loan repayment for POCSSBO. His regression results indicate that variables like borrower's age, perceived cost of default and expediency of repayment period have positive impact on full loan repayment. On the other hand, he reported that loan diversion and loan size contribute to reduction of the probability of full loan repayment (See Berhanu, 1999).

Regarding empirical studies on the institutional viability of microcredit schemes operated through community based social structures like *iddir*s, *mahbers*, there is hardly any literature as there have not hitherto existed *iddir*s-managed microcredit operations in Ethiopia other than the one pursued by ACORD. On the other hand, however, there are empirical studies that indicate that *iddir*s involve in development activities and as well have linkages with the formal financial systems. Dejene (1993), reported that in a survey comprising 32 *iddir*s in Addis Ababa, about 36% are found to have been involved in development efforts, while 85% of total financial assets of the surveyed *iddir*s are deposited in banks. Dejene applauds the *iddir*s as the most egalitarian and democratic grass roots institutions that cut across ethnic, religious and occupational boundaries. Besides, he suggests that with supporting government policies, it is possible to transform such informal financial institutions into modern ones (See Dejene, 1993, p.87). Other than recommending appropriate government policy initiative, no empirical study that deals with the viability of using *iddir*s for microfinancing has been conducted. This research, therefore, could contribute to the literature by appraising the *iddir*-managed microcredit scheme engineered by ACORD-Ethiopia.

Empirical literature on the existence and extent of information asymmetry in the microfinancing operations in Ethiopia is virtually non-existent. Since ACORD's *iddirs* revolving credit scheme operates with interest rates varying from *iddir* to *iddir*, it appears worth looking at the problem of adverse selection (ex ante) triggered by high interest rate if any. Following the adverse effect induced by high interest rate and other variables contributing to information asymmetry, the problem of moral hazard (ex-post) shall be looked into.

CHAPTER THREE

DATA AND METHODOLOGY

3.1. Data Type and Source:

The types of data used for the research are both primary and secondary. The primary data are cross-sectional and are collected from a survey conducted in Dire Dawa between January and mid February, 2000.The survey covers about 18 *Iddir*s out of the currently on-going 83 under 3 sub-offices; namely Addis Alem, Police Meret and Sabian. From the 18 sample *iddir*s about 200 individual *iddir* credit clients were interviewed. While the number of *iddir*s surveyed is about 21.7% of the functioning 83, individual credit beneficiaries interviewed comprise of about 6.3% of total *iddir* members.

The cross-sectional data collected, in the main, captures information on borrower and *iddir* characteristics, loans, repayments and savings profiles, spending on inputs, employment and production, medical, educational, nutritional and over all consumption and assets changes as well as technical supports (monitoring, training and animation, etc.).

Secondary data used for the research among others include various planning and performance reports of ACORD as well as evaluation and program assessment reports carried out by ACORD program staff and external consultants. Rigorous discussions with key informants from various *iddir*s and ACORD staff have been made use of. Besides, case studies carried out through discourse with credit clients who are rated as “strong”, “medium (mediocre)”, “weak” have been done.

Various publications, studies and reports in the areas of microfinancing and the microenterprise sector of Ethiopia have been referred to. While the data from the survey are used to gauge borrower's viability through the use of such parameters as changes in borrower's income, consumption, assets, etc., it is at the same time used to model the variables affecting loan repayments. On the other hand, focus group discussions, information from key informants and ACORD's various reports are used for assessing the institutional viability aspect of the *iddirs*-operated credit program.

3.2. Sample Design and Procedure:

Data on Dire Dawa *iddir*s microcredit operation has been collected through a structured questionnaire interpreted into a 12 page Amharic version of it. The sampling method used in the survey is stratified two-stage sampling. The stratification is such that *iddir*s were classified into strong, medium and weak types on the basis of their credit performance, leadership quality and management styles as per ACORD's appraisal. While the primary sampling units are the *iddir*s in which case 21.7% of the 83 *iddir*s were captured, the secondary sampling units are the credit client households. The sampling frame being list of *iddir*s, individual credit clients were selected using random sampling techniques.

The questionnaire is designed in such a way that it can sufficiently capture all relevant variables that affect loan repayment performance and welfare changes. To conduct the survey, trained enumerators and a qualified research assistant were deployed. The enumerators were given full day training on the task they had to perform. On the next day, they were deployed to carry out a pilot survey the result of which was reviewed by the researcher and a series of feedback was given to the enumerators the following morning. About 200 respondents have contributed to the database on ACORD-initiated *iddirs* credit scheme. Extensive information on women beneficiaries and the overall credit program has been captured through participatory discourse (using PRA) between the researcher and different credit clients – weak to strong.

3.3. Methodology:

In analyzing the Dire Dawa *Iddir*-RCF operation with respect to its impact on borrowers' welfare, loan repayment performance and determinants, the viability of using CBOs (*iddirs*, *mahbers*, etc.) as microfinancing institutions as well as the existence of information asymmetry, the following methodologies are resorted to.

a\ Credit Impact on Borrowers: To find out whether the ACORD-initiated *iddirs* microcredit operation has brought about positive welfare shocks to its clients, a descriptive analysis that captures the before and after situation of borrowers shall be made use of. The intertemporal comparison of welfare status of borrowers captures variables like income, consumption, savings, assets, employment, nutrition, health, education, entrepreneurial skill, and empowerment.

Using a before and after analysis on borrowers' economic and social conditions for impact assessment analysis is recommended on the ground that other methods like using control groups or production function have practical difficulties and involve high costs. Despite the fact that this method is friendly and is being used by many researchers, it has certain limitations. In this connection Adam (1988,p.357) criticizes this approach in that cause and effect between loans and changes in other borrowers' economic actions is difficult to establish due to borrower heterogeneity and fungibility. Johnson & Rogaly also raise some methodological problems, like the provision of false information by loan diverters; the difficulty of knowing what would happen to a borrower if the loan had not been made; and the fact that establishing a causal relationship to the loan in question involves knowledge of all the beneficiary's sources and uses of funds.

b\ Loan Repayment Performance and Determinants:

The assessment of loan repayment performance of the *iddir*-managed microcredit operation of ACORD in Dire Dawa is fairly straight. Responses from sample loanees will be made use of in calculating loan recovery rate. Sideways, however, recovery rates indicated in ACORD's performance reports are exhibited.

Since sound loan repayment performance is one of the features reflecting a sustainable credit program, determinants of better loan recovery are naturally of significance in designing better credit schemes. The behavior of a borrower with respect to loan repayment is influenced by a number of factors. Johnson and Rogaly (1996), for instance depict that borrowers who have no collateral incentives to repay can be induced to perform better loan repayment if intensive supervision, peer group monitoring, along with providing incentives both to borrowers and agency staff are made. Compulsory saving as means of insuring or collateralizing group loans along with the provision of access to the borrower for repeat loans (progressive lending) also serve as an incentive to loan repayment (See Johnson & Rogaly, 1996, p.36).

Modeling of loan repayment performance by capturing both lenders and borrowers behavior among others include non-price information such as wealth variables, demographic variables like age, gender number of children, religion, etc. and economic variables such as income, number of hired labor, etc. (Hunte, 1996).

The major variables that are deemed to influence the loan repayment performance of ACORD's *Iddirs*- Revolving Credit Scheme are hypothesized as follows:

Loan Amount (LA): The size of loan provided to a borrower is expected to have a mixed impact. If size of loan is consistent with borrower's costs, the impact on repayment is positive. Sign of the coefficient in this respect is expected to be positive. If, however, the amount of loan stretched is higher than the borrower's project costs, loan becomes a burden; and hence repayment is affected negatively. Whereas, in a situation of too small a loan size two possible outcomes are expected. The borrower might find it easy to repay and hence in this case the sign of this variable turns out positive. On the other hand, too small a loan size might diminish commitment and hence encourage moral hazard by way of diversion. This scenario results in a negative sign of the coefficient.

Gender (G): It is normally assumed that women beneficiaries are less prone to default and respect repayment schedules on the ground that they are simply prudent and assume more responsibilities in home affairs. Many microfinance specialists believe that women are better loan payers as compared to their male counter parts (Hunte, 1996). Being a female borrower is thus expected to generate a positive coefficient.

Borrower's Level of Education (BLE): The more the educated is the credit client, the more efficient use of loan is expected. Adeyemo (1984) states that education represents both capacity and willingness to pay. Even though, it is assumed that education provides the leverage to better loan utilization, a number of factors influence educated borrowers in either direction. If the enforcement mechanism of the credit institution is strong, such borrowers tend to refrain from default as they have a better understanding of the consequences. On the other hand educated borrowers have greater concern for their reputation; in this connection, therefore, they tend to comply with repayment obligations. Following the above reasoning therefore, the education variable is obviously ambiguous in relation to loan repayment performance.

Other Income Sources (OIS): Access to other income sources different to the one financed by the loan contributes to better repayment performance. Kulundu (1990) states that the availability of diversified sources of income has a positive influence on loan repayment. We can not however, overlook the fact that access to various income sources may provide an incentive to the borrower not to comply with repayment commitment if particularly he does not require further loans from the same source. In instances of this sort therefore, this variable's coefficient might turn out to be negative.

Loan Supervision Visits (LSV): Intensive loan supervision by way of regular meetings with extension staff near borrowers' neighborhood provides an incentive to loan repayment. Sign of this variable is therefore expected to be positive.

Technical Assistance (TA): Technical intermediation like the provision of training, business advisory services, market information, etc. unambiguously influence borrower's business performance and behavior. Therefore, the provision of such services is assumed to impact better repayment performance; this variable's coefficient is hence positive.

Other Credit Sources (OCS): Borrowers may have a number of credit sources. Since fungibility is a common phenomenon faced by borrowers, it is normally the case that borrowers with multiple sources of credit may be in a better position to repay as they have the capacity to divert funds to the loan that has matured. In this connection, therefore, the sign of this variable shall be positive. On the other hand, a borrower with access to multiple credit sources, might fail to repay if he thinks that defaulting will not repudiate his access to the rest of his sources, i.e. if the knowledge of his default is not public and hence has no contagion effect. In instances of this sort, the sign of the coefficient of this variable could be negative.

Cost of Default (COD): Default costs like unbearable social sanctions, foreclosure of own and/or guarantor's assets, loss of future access to credit etc. are expected to enforce repayment, if these costs are perceived as being high by the borrower. Sign of this variable will thus be positive for those borrowers who presume that the cost of default is greater than the perceived benefit. Opposite sign is expected if borrower's perception of default costs is otherwise.

Income from Loan (IFL): An increase in a borrower's income stemming from the loan financed activities obviously has a positive repercussion on repayment performance. With improved income, the borrower will normally attain a better capacity to repay. Unless the borrower is a willing defaulter type who fails to observe what is expected of him even when capable of doing so, an increase in proceeds of the borrower will normally provide him with an incentive to repay. The expected sign of the coefficient of this variable is therefore positive. If the attainment of increased income from the business, on the other hand, signals the borrower that he may no longer need extra credit, he then will have an incentive to default; and hence the sign of this variable's coefficient can be negative.

Rate of Interest (ROI): Since the *iddirs* in Dire Dawa operate at different lending rates, the differences in the price of money among the *iddirs* will have a bearing on repayment performance. Borrowers who access loan at or below the on-going bank rates will have better repayment performance, while those who are obliged to pay high interest rates will have a lower incentive to repay their loans. Those *iddirs*, which charge very high interest rates, are likely to serve a pool of potentially defaulting borrowers. This is an adverse effect observed before disbursing the loan (ex-ante). After providing high interest loans to this pool of borrowers, the lender ends up in pushing his clients to carry out risky businesses and hence reduce the probability of full loan repayment. The sign of the coefficient of this variable, therefore, depends on the rate of interest the *iddirs* charge.

Expediency of Loan Issuance and Repayment (ELIR): By loan issuance and repayment expediency, it is intended to imply timeliness, place loan issued or repaid, and procedures. Untimely loan issuance, straining repayment schedules, inconvenient and or costly loan processing site as well as cumbersome procedures have an adverse bearing on repayment performance. Expedient loan issuance and repayment arrangements, on the other hand, provide the borrower with better incentives to repay his loan. Thus, the expected coefficient will have a positive sign in this connection.

Use of bookkeeping (UBK): A borrower with a knowledge and competence of book keeping will have a full know-how of the status of his business as well as his repayment requirements. The use of accounts, therefore, has a positive contribution to loan repayment. Positive sign for this variable's coefficient is thus expected.

Borrower's Age (BA): It is normally expected that as a borrower's age increases, his experience in business would assist him to figure out the right things and hence become successful both in his credit-financed activities and in loan repayments. On the other hand old age makes a borrower perform low and hence affect repayment negatively. Thus, the variables age and age square are expected to be significant as well as to have positive and negative signs respectively.

Loan Diversion (LD): By diversion, it is meant that loan proceeds are spent on purposes other than what is specified in the loan contract. The implication of loan diversion on repayment depends on what the borrower has done with the diverted fund. If the beneficiary diverts loan for an activity whose returns are higher than the business stipulated in the loan agreement, then the impact on repayment is positive. On the other hand, if the loanee diverts funds to non-income generating ends, then the repercussion of this action on repayment performance will be negative. In this connection Von Pischke (1991) states that if diverted loan is used for non-income generating purposes, loan repayment will be undermined. The sign of the coefficient of the loan diversion variable, therefore depends on what action the borrower takes with the diverted loan.

Loan diversion being one of the variables affecting repayment, is itself also influenced by a number of factors. Factors within and outside the loan repayment equation therefore, affect loan diversion. Loan diversion, therefore, is endogenous to the system. On account of its endogeneity, a model for loan diversion has been formulated with the following variables.

Loan Amount (LA): The size of loan provided to a borrower is expected to be diverted if it is in excess of his business requirements. In such instances the coefficient of this variable becomes positive. Loan size compatible with investment requirements is less probable to be diverted; and hence negative sign of this variable is expected. On the other hand loan amount that falls short of the borrowers project costs induces the loanee to indulge into diversion. In general, therefore, the bearing of loan size on diversion is mixed.

Loan Supervision Visits (LSV): Strict follow-up and rigorous loan supervision deters loan diversion. Negative sign for the coefficient of this variable is expected in a situation of this sort. Conversely, weak supervision provides an incentive for borrowers to spend loan proceeds on non-intended uses; positive sign is hence expected.

Borrower's Level of Education (BLE): Better-educated borrowers are normally taken as agents who can rationalize better than the less educated ones. From the very outset, such borrowers come up with viable and well-planned business ideas. With an increase in the level of education of the borrower, therefore, the probability of diversion diminishes. Kulundu (1996), in this connection states that some empirical studies show that more educated loanees tend to use loan proceeds for intended purposes than their less educated counterparts.

Dependent Size (DS): Dependents include those people who live within the household as well as those supported by the beneficiary outside the household. The greater the size of dependents who count on the income of the credit client for their livelihood, the more will be the temptation on part of the borrower to divert funds to cover living costs of dependents. Hence, higher dependent size affects the loan diversion variable positively. Therefore, a positive sign for the coefficient of this variable is expected.

Expediency of Loan Issuance and Repayment (ELIR): If borrowers find the time, place and procedures of loan issuance and repayment expedient, they will have a low profile of loan diversion. This variable will have a negative coefficient in an environment of timely loan issuance and less stringent loan processes. On the other hand late loan delivery pushes the loanee into changes in business plans due to changing business environment. Hence the probability of diverting loan proceeds increases with late loan delivery time and/or stringent loan and repayment procedures. The sign of the coefficient of the variable then turns out to be positive.

Use of Book keeping (UBK): A borrower who keeps records is less likely to confuse his income from the loan proceeds from the rest of his income sources. As a result the tendency for this borrower to divert loans is less probable as compared to the one who has no knowledge of book keeping. Negative sign is hence normally expected for this variable.

Rate of Interest (ROI): The credit operation of the *iddir*s in Dire Dawa harbors different rates of interest on borrowed funds. It can be assumed that *iddir*s operating at excessively high interest rates give an incentive to their clients to commit moral hazard by letting them indulge into high return and hence high-risk businesses. The coefficient of this variable in a situation of this sort, therefore, will be positive. If on the other hand a borrower is faced with a rate of interest equal to or lower than the opportunity cost of capital his tendency to divert loan funds will be low; and hence we expect a negative sign for this variable.

The model employed in this research is a recursive type on account of considering the endogeneity of the loan diversion variable which itself is influenced by a number of factors. Kulundu (1990) had applied this methodology in modeling the determinants of small holder credit repayment performance in Kenya.

The model in this study is comprised of two sets of equations; i.e. an equation that captures the determinants of full loan repayment and another equation that captures the factors influencing loan diversion. The loan repayment equation is set assuming that credit clients fulfill loan repayment requirements if they feel that they have derived some utilities. Full loan repayment, therefore, is captured by a utility index UI (non-observable) affected by a set of variables. What is considered as full loan repayment in this study is a repayment rate of 92%. This is so because individual plus *iddirs'* savings on average contribute for about 8% of total loan disbursed. Assuming that the savings can partly cover defaults, a 92% recovery rate is taken as full repayment. Putting this formally:

RLR=1 if UI > 0: Rate of Loan repayment ≥ 0.92 implies full loan repayment

RLR=0 if UI ≤ 0: Rate of Loan repayment < 0.92 implies less than full repayment

Where :RLRi= Loan repayment performance of the i^{th} borrower

UIi = Utility index of the i^{th} borrower

The Probit model is applied in handling the repayment equation since the dependent variable in this equation is dichotomous. In the probit model, we assume that there is an underlying latent variable in which case we observe dichotomous realization. If for instance the observed dummy variable is whether or not the person is employed, the latent variable is the utility from repayment and the dichotomous realization is thus whether or not the loanee has paid in full (See Berhanu, 1999,p28). The probit analysis model assumes that there is an underlying response variable y_i* defined by the regression relationship:$y_i* = \beta'x_i + \mu_i$

In the above functional relation y_i* is unobservable; rather what is observed is:

$$y = 1 \text{ if } yi* > 0$$

$$y = 0 \text{ otherwise (Maddala, 1997)}$$

In this recursive model, the loan diversion equation is estimated by Tobit model prior to the estimation of the repayment performance equation. The fitted values of the loan diversion rate are then used in the estimation of the latter. The values of loan diversion rate range between zero and one. Full loan diversion is equal to one, partial diversion between zero and one and absence of loan diversion rate equals zero. The Tobit model is an appropriate one to handle regression models with limited dependent variables that are continuous between zero and one. The Tobit model is defined as follows: (Maddala, 1997,p151)

$$y_i = \beta' x_i + \mu_i \quad \text{if RHS} > 0$$

$$y_i = 0 \quad \text{otherwise}$$

β is a k x 1 vector of unknown parameters; while x_i is a k x 1 vector of unknown constants; μ_i are residuals that are independently and normally distributed with mean 0 and variance σ^2. Mengistu (1997) and Berhanu (1999) have employed similar models for MTDP and POCSSBO respectively.

The hypothesized model with the two sets of equations that captures the factors affecting full loan repayment and loan diversion is presented as follows.

RLR = F(RLD, LA, G, BLE, NLI, LSV, TA, OCS, COD, IFL, ROI, ELIR,

UBK, BA, BASQ, U1) ------*(1)*

RLD = G (LA, LSV, BLE, DS, ELIR, UBK, ROI, U2)----------*(2)*

RLR = Rate of Loan Repayment →(Dependent Variable)

RLD = Rate of Loan Diversion → (will be estimated by computing (2) and then taken as one of the regressing exogenous variables in equation. (1)

LA = Loan Amount in Birr

G = Gender: Dummy; 1 if female 0 otherwise

BLE = Borrower's Level of Education

Non literate	=1
Grade1-4	=2
Grade 5-8	=3
Grade 9-12	=4
Above Grade 12	=5

DS = Dependents Size

OIS = Other Income Sources: Dummy; 1 if available 0 otherwise

LSV = Loan Supervision Visits to a borrower: Dummy;1 perceived sufficient 0 otherwise

TA = Technical Assistance (Training, business advisory services, market information etc) Dummy; 1 if provided 0 otherwise

OCS = Other Credit Sources: Dummy; 1 if available 0 otherwise

COD = Costs of Default (high social sanction, foreclosure of own/ guarantors asset, etc.) Dummy; 1 if high 0 otherwise

IFL = Income Form Loan – net of repayment (in Birr per month)

Below Birr 50	=1
Birr 51 - 100	=2
Birr 101- 200	=3
Birr 201- 300	=4

Birr 301- 400 =5

Birr 401- 500 =6

Above Birr 501 =7

ROI = Rate of interest on Borrowed Fund: Dummy 1 if interst=10% or below, 0 otherwise

ELIR = Expediency of Loan Issuance and Repayment (Time, Place, and Procedures): Dummy ; 1 if expedient, 0 otherwise

UBK = Use of Book keeping in business; Dummy; 1 if book keeping used, 0 otherwise.

BA = Borrower's Age in years

BASQ = Borrower's Age Square

The covariance of the error terms of the two equations is assumed 0, i.e. Cov (U_1, U2) = 0 Maximum likelihood method is used in the estimation of the stated equations. OLS is not opted for it has problems of hetroscedasticity and non-normality of the error terms and the possibility of securing estimated probabilities outside the range of 0-1.

c\ *Institutional Viability of Iddirs-managed Credit Scheme:*

The institutional viability of ACORD's credit operation through *iddirs* in Dire Dawa is appraised in descriptive ways. The compliance of this credit scheme with the existing legal and regulatory framework, the competence of *iddir* leaders in credit management, the existence of capacity building and incentive schemes, the structure of *iddir*s as institutions, and the participation as well as commitment of members are the main features that serve as measures of institutional viability.

d\ The existence & extent of Information Asymmetry:

The credit market normally operates under information asymmetry. Major reflections of the information asymmetry problem are adverse selection and moral hazard. High interest rate on loanable funds, lack of or weak enforcement mechanisms, lack of collateral, and problems of monitoring are among the factors resulting in both adverse selection and moral hazard. The fact that *iddir*s in Dire Dawa charge different rates of interest based on consensus of clients is an interesting feature for assessing the prevalence of the problems of adverse effect and moral hazard by comparing the behavior of different set of borrowers. Thus, this part of the study in the main bases its argument on the ground of the existence of varied interest rates among others. This aspect of the study is descriptive.

CHAPTER FOUR

EMPIRICAL ANALYSIS

4.1 Characteristics of Surveyed *Iddirs* and Members:

The *Iddir*-RCF program initiated in 1995 by ACORD which is kind of microfinancing operation through and managed by *iddirs*, *mahbers*, etc. has now reached about 100 *Iddirs*. From the 100 *iddirs* embraced in the RCF program component 83 are currently operating more or less in a healthy environment while the rest 17 have completely defaulted. Total membership of these *iddirs* is estimated at 3784 with a mean membership per *iddir* of 38 people.

In the survey conducted for this research, 18 *iddirs* i.e., about 21.7% of the on going 83 are covered. From the 18 sample *iddirs* 39% are strong, 22%, medium and 39% weak as per ACORD's classification. This classification is proportionate to the state of status of the on-going 83 *iddirs* as captured from the information contained by ACORD Dire Dawa. The sample *iddirs* fall under the 3 sub-offices. These are Addis Alem (6 *iddirs*), Police Meret (6 *iddirs*), and Sabian (6 *iddirs*). See table below:

Table: 4.1.1 Sample Iddirs by Sub-office & Status:

No	*Sub-office*	*Number & Status of Iddirs*			*Total*
		Strong	*Medium*	*Weak*	
1	Addis Alem	2	2	2	6
2	Police Meret	2	1	3	6
3	Sabian	3	1	2	6
	Total	*7*	*4*	*7*	*18*

Source: Computed from survey data

From the 18 *iddirs* taken as samples, 200 credit recipient respondents selected randomly have been covered. The sample *iddirs* classified under the strong category comprise of 37.5% of the total number of *iddir* members covered in the survey. Similarly, the medium and weak category consist of 26.5% and 36% respectively.

Of the 200 credit recipient *iddir* members that are covered in the survey, about 81.5 % are women. About 16% of the respondents fall between the age of 15-25 while 61.5% are in the age group of 26-45. This implies that the program has greater coverage on women and the relatively aged *iddir* members. Of the total sample *iddir* members taken 73% are married and 39.5% are illiterate. About 78.5% of the 200 *iddir* members taken for the survey have a house hold size of up to 7 members, 78% have additional dependents of up to 2 persons within the household; whereas 55.1% have dependents of up to 2 persons outside the household.

Table: 4.1.2 Respondents by Educational Status and Sex:

No	*Educational Status*	*Sex*		*Total*	*%*
		Male	*Female*		
1	Illiterate	3	76	79	39.5
2	Grade 1-4	3	22	25	12.5
3	Grade 5-8	12	38	50	25
4	Grade 9-12	16	22	38	19
5	Above Grade 12	3	5	8	4
	Total	37	163	200	100
	Percentage Share	18.5	81.5	100	

Source: Computed from survey data

Regarding the utilization of financial services before the ACORD-initiated *Iddir*-RCF credit program, 43% had made use of the services from different sources. None of the respondents accessed loan from the formal financial sector. Of those who responded as having access to financial services before the ACORD program, 53% of the respondents had been utilizing *iqqubs* as sole sources of credit. Average loan size per/head per annum secured from the informal sources like *iqquibs*, *iddirs*, friends, etc, before ACORD's intervention was about Birr 962. The majority of the respondents fall in the loan-using group of up to birr 500. As regards use of loan, 41% placed the loan proceeds on consumption, 43% for trading activities and rest for others.

The introduction of ACORD's revolving credit scheme in Dire Dawa has resulted in the shift of borrower *iddir* members into their own *Iddir*-RCF program for the satisfaction of their financial service requirements. Almost all respondents have reported that they have ceased demanding loans from sources other than their *Iddir*-RCF schemes.

Regarding, borrowers' reactions to the ACORD-initiated credit operations, the following survey findings are gripped. Loan size taken by sample respondents range between birr 100-2700 per head. Average loan size per borrower is birr 828; rounds of loan intake of highest frequency is 2 (34% of borrowers) during the years 1995-2000. Asked about the sufficiency of loan size and timeliness of both loan issuance and repayment 55% complained of the insufficiency of the loan proceeds; while 92%, and 83% of the surveyed borrowers respectively responded that loan issuance and repayment times are suitable.

As regards respondents' perception about the cost of default, 59% felt that it is high. Ostracism (rejection by community) is the most feared penalty (26%) followed by penalty on guarantor (22%), foreclosure (20%), denying access to repeat loan (19%), and other unspecified reasons (13%).

Most borrowers (About 60%) have reported income less than 300 birr/month before joining the RCF scheme. Sources of income for the surveyed *iddir* members are 47% government employment, 46% income from business, 3% support from relatives and rest others.

Regarding operational problems faced by credit recipients in their income generating activities, lack of working capital is the single most felt problem (30%), followed by lack of market (6.5%), a host of other problems (4.5%), lack of working premises (3.5%), and shortage of raw materials (2.9%). The balance (52.6%) is attributed to a mix of problems that comprise of two or more of the aforementioned problems.

4.2 The impact of ACORD's *Iddir*-RCF Scheme on Poverty Reduction:

Since the intervention of ACORD in poverty reduction initiatives in Dire Dawa in 1995 through credit intermediation using *iddirs* as entry points, most members of the embraced 100 *iddirs* have accessed rounds of loans. Between the years 1995-1999 about 35% of the respondents have taken two rounds of loans followed by 26%, 23%, 13% and 3% who took 3,1,4 and 5 rounds of loan. Theses successive doses of credit injection are not without results. The survey conducted on the 18 *iddirs* (200 respondents), captures the before and after situations of changes in borrower' incomes, assets, employment, access to medical & educational services, consumption expenditure, input uses, savings and the empowerment of women. The survey findings vis-à-vis the stated impact assessment features are put as follows:

4.2.1 Impact on Borrowers Incomes and Assets:

One of the objectives of running microcredit operations is to bring about positive income changes to program beneficiaries by availing the required financial inputs in an optimum amount. The strive against poverty through credit intermediation necessarily presumes that borrowers are expected to derive better incomes as a result of engaging themselves in lucrative activities. From the 200 respondents 190 have reported on their monthly additional income derived from their credit-financed activities. Accordingly, the largest number of borrowers seems to derive a monthly gross additional income of birr101-200. For details see table below:

Table: 4.2.1.1 Respondents by Monthly Income Generated through RCF-financed Activities:

Loan-triggered Income Birr/month)	*No. of Respondents*	*%*	*Cumulative %*
<50	29	15.3	15.3
51-100	38	20	35.3
101-200	39	20.5	55.8
201-300	24	12.6	68.4
301-400	16	8.4	76.8
401-500	10	5.3	82.1
>501	34	17.9	*100*
Total	*190*	*100*	

Source: Computed from survey data

Besides reporting increases in income as shown above, about 86 *iddir* members from the surveyed 18 *iddirs* have reported changes in the possession of household assets level. The combined estimated value of assets generated as a result of the credit intermediation is about birr 150,000. The respondents who claim to have exhibited possession of new assets or an increase in asset holdings, reported the purchase of items like gold, television sets, refrigerators, taperecorders, household utensils, sheep, goats, cows, construction of new houses etc. Despite this however few individuals from *iddirs* called Jima Fersema Yeqan, Agapie and Gedam Sefer Fetinoderash have reported a decline in their asset holdings due to the burden imposed on them as a result of borrowing. The largest frequency in assets holding before the credit program is valued at less than Birr 2000 (18.5% of respondents). When looking at the "after" scenario, it is reported that the largest number of beneficiaries falls in the asset holding bracket of birr 4001 and above. The following table depicts the "before and after" situation of borrowers' assets.

Table: 4.2.1.2 Respondents Possession of Assets Before and After the Credit Program:

Value of Assets in Birr	*No. of Respondents*			
	Before Loan	*%*	*After Loan*	*%*
<500	35	17.9	25	12.6
501-1000	36	18.5	36	18.2
1001-2000	36	18.5	28	14.1
2001-3000	31	15.9	27	13.6
3001-4000	23	11.8	27	13.6
>4000	34	17.4	55	27.8
Total	*190*	*100*	*198*	*100*

Source: Computed from survey data

As can be seen from the above table, borrowers' assets between the first and fourth categories are higher during the "before" situation as compared to the "after" situation. On the other hand, it can be noted that borrowers' assets in the last 2 asset brackets (i.e., in the 3001-4000 birr and greater than 4000 birr categories) have increased in number in the "after loan" situation. The implication of this scenario is that there appears to exist a positive correlation between the credit services provided and increases in the level of borrowers' assets holdings. The increase in borrowers' assets could be triggered by a number of factors, some of which are unrelated to the financial services provided to agents in the *Iddir*s-RCF program. Family assistance, other income from non-credit sources, wind falls, etc. could all bring about changes in household assets holding.

As a response to the above issue, 14.2% of the respondents insist that the loan from the ACORD program is the mere cause to the positive change in extra assets generation; while 26.7% replied that the increase in assets possession is mostly triggered by the credit program. The rest (22.5% and 36.7% of the respondents) responded that the credit program has a partial (50%) and little (25%) impact in assets changes respectively.

For further analysis of the impact of the credit program on borrowers' asset holding, it is worth resorting to hypothesis testing. Hypothesis testing is either parametric in which case stringent assumptions about the distribution of the population are required or can be non parametric which is distribution free. The Wilcoxon signed rank test, which is a non parametric statistical counter part of the Student's t test of H_0: $\mu = \mu_0$ is stated in terms of the population median (Van Matre& Gilbreath, 1983). In comparative experiment the Wilcoxon test for paired or related samples is a sound measurement instrument for "before and after" analysis. In applying the Wilcoxon test for paired samples, we find the difference between each observed pair of values, drop the observation in cases of ties, and then each rank is given a positive and negative sign. Thereafter, the sum of the positive ranks, symbolized by T+, or the sum of the negative ranks T-, shall be computed as symbolized by $T_+ + T_- = n(n+1)/2$. The appropriate test statistic for various alternative hypotheses with the Wilcoxon signed rank test are as follows.

Alternative Hypothesis:	Test Statistics:
H_1: $M<M_0$	T_+
H_1: $M>M_0$	T-
H_1: $M \neq M_0$	smaller of T_+ and T_-

The test statistic will be rejected if it is equal to or less than the critical value given in Appendix J (SeeVan Matre& Gilbreath, 1983, p. 514). For samples not tabulated in Appendix J (n >25), the distribution of both T_+ and T_- can be considered normal with:

$$\mu_T = \frac{n(n+1)}{4}$$

$$\sigma_T = \frac{\sqrt{n(n+1)(2n+1)}}{24}$$

To qualify the aforementioned statistical results by way of hypothesis testing using nonparametric Wilcoxon signed ranks, "the before and after " household assets levels are denoted as HHALb and HHALa respectively. The null and alternative hypotheses with respect to comparing the before after asset changes of *iddir* members can thus be specified as follows:

H_0: House Hold Assets Level after the loan is the same as before the loan, i.e., HHALa=HHALb

H_1: House Hold Assets Level after the loan is greater than before the loan, i.e., HHALa>HHALb

The test results found using SPSS 9 are put as follows.

Wilcoxon Matched - Pairs Signed Ranks test:

	Ranks	N	Mean Rank	Sum of Ranks
HHALa - HHALb	Negative Ranks	13	47.42	616.5
	Positive Ranks	61	35.39	2158.5
	Ties	119		
	Total	193		

Z -4.272 P .0000

The results shown above depict that the null hypothesis is rejected at 1% level of significance. The finding therefore confirms that the *Iddir*-RCF scheme has resulted in an increase in the assets holding level of borrower households.

Other program features that are related to borrowers' income and assets situation are certain household services like access to electricity, toilets, potable water that were looked into through the survey conducted. The following table shows the survey results of the before and after situation of households' access to the stated services.

Table: 4.2.1.3 Respondents Access to Utilities Before and After the Credit program:

Situation	*Number of respondents:*								
	Electricity			*Toilet*			*Potable Pipe Water*		
	YES	*No*	*Total*	*YES*	*No*	*Total*	*Yes*	*No*	***Total***
1.Before Loan	159	40	199	155	44	199	48	152	200
2.After Loan	161	38	199	168	31	199	51	149	200

Source: Computed from survey data

Respondents access to utilities like electricity, toilet and clean tap water as shown in the above table has increased a little but is not that impressive. On average 3 borrowers among the surveyed respondents have managed to access the facilities as a result of the credit program.

4.2.2 Impact on Employment:

One of the objectives of ACORD in operating with *iddir*s in Dire Dawa is to trigger employment (self or otherwise) thereby reduce poverty through increased income. By providing small loans *iddir*s have managed to push their clients into self-employing business activities and/or strengthen already existing opportunities. In this connection the survey results indicate that, *iddir* members who enjoyed the RCF program with rounds of credit injection are mostly informal sector operators involved in activities like local food & beverages production, weaving, wood and metalwork, shoe shining, hair dressing, petty trades, "chat" (mildly stimulating leaf) and grain trade, as well as running of small restaurants and other activities.

Before the credit program about 18.5% of the surveyed 200 borrowers had no job of any kind. They were completely dependent on other household members for their livelihood.

After the credit program the unemployment has gone down to 2.5%. Increased participation in trading activities has been observed after the credit program. The number of retail traders for instance has increased from 36 to 57. Other inter activity shifts are also observed though not that impressive. The number of local foodstuff sellers has increased from 20 before the RCF scheme to 27 after the program. As expected the number of people who are engaged in production activities like wood, metal works and weaving have exhibited no change in the before after situation. This is the sad side of microfinancing in that people tend to use small loans for trading activities, which bring them higher, and quicker returns compared to the production counterpart. Responses from most borrowers indicate that they use own labor in pursuing their credit-financed activities. Virtually no beneficiary has reported employed labor.

The overall contribution of the program to employment is positive in that it has engaged people who had been sitting idle (particularly women).

4.2.3 Impact on Access to Medical Services:

Involving the poor in credit programs aims at triggering improved living conditions on the borrowers. Among the things that reflect the living conditions of the poor, access to health services is one. Despite that the direct aim of the credit program is to improve and stabilize the income the poor, success of the program in this respect reflects improved conditions with regard to nutrition, access to medication and educational facilities, etc.

Survey findings of the ACORD-initiated microcredit operation in Dire Dawa indicate that about 151 *iddir* members (75.5%) had access to public medical facilities. 21% of the respondents were getting free medicare and about 9% were covering medical expenses from own sources. After the credit program, the number of public medical facility users increased to 173 while free medical facility users dropped down to 13.5%. Besides, the percentage of *iddir* members who covered their medical expenses from own source rose to 56% after the credit program. About 43.5% of the surveyed *iddir* members have responded as having improved access to medication after the credit program while medical expenditure after the loan program has on average increased by 52.8%. To qualify the above statements with non-parametric Wilcoxon Matched-Pairs Signed ranks test the following null and alternative hypotheses can be specified.

H_0: Average Annual Household Medical Expenditure after the loan is the same as before the loan, i.e., AAHMEal AAHMEbl

H_1: Average Annual Household Medical Expenditure after the loan is greater than before the loan, i.e., AAHMEal > AAHMEbl

The test result secured is:

	Ranks	N	Mean Rank	Sum of Ranks
AAHMEal- AAHMEbl	Negative Ranks	35	59.03	2066
	Positive Ranks	88	63.18	5560
	Ties	41		
	Total	164		
	Z = -4.4095	2 Tailed P = .0000		

In light of the above result, therefore, the null hypothesis is rejected and hence, average medical expenditure of households has increased significantly after the loan program.

4.2.4 Impact on Access to Education:

One of the many outcomes of a microfinance program is its impact on borrower households' access to education. If the credit program improved the recipient's income, other things remaining, the agent shall have the ability to send his school age children and/or dependents to school, as he will have the capacity to pay.

The information secured from 195 *iddir* members indicate that the number of respondents who sent 1-4 children to school have increased from 65.1 % before the credit program to 73.8%. Apparently this scenario indicates positive changes in the after the credit situation. However, on the other hand the percentage share of those families who sent more than 4 school-aged children has declined from 14.9% before the credit scheme to 10.8% after the program. Regarding members' dependents and relatives other than own children, the share of *iddir* members who sent 1-4 school -age children has increased from 23.1% before the credit program to 30% after the program. This is apparently an improvement.

Table: 4.2.4.1 Enrollment of School Age Children Before and After Loan:

No. of School Age Children & Dependents Enrolled	*Before Loan*		*After Loan*	
	Number of Respondents	*%*	*Number of Respondents*	*%*
0	39	20	30	15.4
1-4	127	65.1	144	73.8
Above 4	29	14.9	21	10.8
Total	*195*	*100*	*195*	*100*

Source: Computed from survey data

Asked whether the credit recipient has been able to access educational facilities after the program or resumed studies that had been discontinued due to inability of agent to cover costs, about 92% responded that they have not undergone any improvement after the microcredit program what so ever.

The spending side for education by *iddir* members seems to indicate that number of people in the birr101-200 and those in the above 500 birr category has increased, thus indicating improvements after the credit program. Regarding the before after situation vis-a vis borrowers spending on education, the following table provides some perspective.

Table: 4.2.4.2 Respondents by Annual Expenditure on Education Before & After the Credit Program:

Spending on Education Birr/annum	*Before Loan*		*After Loan*	
	Number of Respondents	*%*	*Number of Respondents*	*%*
Below 100	79	41.5	63	33.1
101-200	49	25.8	58	30.5
201-300	30	15.9	29	15.3
301-400	16	8.4	15	7.9
401-500	11	5.8	10	5.3
Above 500	5	2.6	15	7.9
Total	*190*	*100*	*190*	*100*

Source: Computed from survey data

Using Wilcoxon Matched -Pairs Signed ranks Test, it is possible to justify the after loan increases in educational expenditure as follows. The average annual spending on education before and after loan is denoted as AASEbl and AASEal respectively.

The null and alternative hypotheses are as well the following.

H_0: Average Annual Spending on Education after the loan is the same as before the loan, i.e., AASEal = AASEbl

H_1: Average Annual Spending on Education after the loan is greater than before the loan, i.e., AASEal > AASEbl

The test result yields the following results that lead to the rejection of the null hypothesis and accept that the after loan expenditure of households on education is on average higher than the before the loan situation.

	Ranks	N	Mean Rank
AASEal - AASEbl	Negative Ranks	41	69.16
	Positive Ranks	86	61.54
	Ties	63	
	Total	190	

Z = -2.9560 2 Tailed P = .0031

4.2.5 Impact on Consumption Expenditure & Nutrition:

Positive income shocks triggered through microcredit intermediation naturally lead to higher consumption expenditure and hence improved household nutrition. The Dire Dawa *Iddir*-RCF scheme as observed in the survey, has enabled most *iddir* members to derive additional income from credit financed activities. The rise in borrowers' incomes, on the other hand, seems to have resulted in an increase in consumption expenditure and nutrition. Regarding the before and after consumption profile of the 200 sample respondents, the following table shows that the high side of the consumption expenditure bracket favors the after loan situation. *Iddir* members that fall in the expenditure bracket of birr 201-300 and above have exhibited an upward increase in the number of the "after credit" respondents.

For illustration see table below:

Table: 4.2.5.1 Consumption Expenditure of Respondents Before and After loan:

Consumption Expenditure (Birr)	*Before Loan*		*After Loan*	
	No.	*%*	*No.*	*%*
Below 50	12	6	7	3.5
51-100	26	13	21	10.50
101-200	58	29	40	20
201-300	46	23	48	24
301-400	23	11.5	34	17
401-500	15	7.50	18	9
Above 500	20	10	32	16
Total	***200***	***100***	***200***	***100***

Source: Computed from survey data

Suspecting that borrowers' household consumption expenditure and nutrition thereof may show an improvement due to factors other than credit-induced income, *iddir* members were asked to comment on the influence of the microcredit scheme on their consumption expenditure. About 153 respondents reacted to the question and responses are such that 71.2% of them fully attribute the change in their consumption spending to the improvement in their income as a result of the credit financed microenterprise activities.

The above finding is further qualified using Wilcoxon Non-Parametric tests as shown below:

H_0: Average Monthly Consumption Expenditure after loan is same as before loan; i.e.

AMCEal=AMCEbl;

H_1: Average Monthly Consumption Expenditure after loan is grater than before loan; i.e.

AMCEal>AMCEbl;

Where: AMCEal implies Average Monthly Consumption Expenditure after loan and

AMCEbl implies Average Monthly Consumption Expenditure before loan

Test results using SPSS indicate that the null hypothesis is rejected at 1% level of significance. It thus implies that consumption expenditure after the loan scheme is on average significantly higher than the "before the loan" situation.

Wilcoxon Matched - Pairs Signed Ranks test

	Ranks	N	Mean Rank	Sum of Ranks
AMCEal - AMCEbl	Negative Ranks	19	79.66	1513.5
	Positive Ranks	101	56.9	5746.5
	Ties	77		
	Total	197		

Z -5.841 2 Tailed P .0000

Regarding the status of household nutrition after the involvement of members in the *Iddir*-RCF program, 126 respondents (64.6%) out of 195 responded affirmatively while 69 *iddir* members (35.4%) stated that they have not been able to exhibit any improvement in nutrition. The response secured from most *iddir* members covered in the sample therefore testifies that the ACORD-initiated microcredit operation has resulted in the betterment of the nutritional status of member households.

4.2.6 Impact on Savings:

The ACORD *Iddir*-RCF credit program component in Dire Dawa operates with the provision of a matching grant to those *iddirs* that provide financial services to the poor particularly women. While the matching grant that ACORD provides is as high as 90% of the total *iddir* loan portfolio, *iddir*s are normally expected to fill the balance. The contribution of a matching fund by any *iddir* naturally comes from borrower *iddir* members, which in effect needs saving on part of each beneficiary. Along with the contribution of matching funds by *iddir*s for start - up of financial intermediation, members are encouraged to save part of the proceeds generated from loan financed business activities. In connection to this, the impact of the RCF scheme on savings as found from survey results is apparently encouraging.

As per the survey results, the number of *iddir* members who make regular voluntary savings has increased from 65 before the credit program to 157 after the credit program. On the other hand gross annual savings of the surveyed *iddir* members has increased from Birr 30602 to Birr 63311 for the year 1999. Though, the number of people who are saving has increased after the credit program, the per capita saving in cash has gone down apparently because the program resorts to voluntary savings unlike most microcredit schemes in the country that prefer mandatory savings . It is commonly observed that poor people, apart from savings in cash, hold savings in the form of assets such as animals, grain or jewelry (See Johnson &

Rogaly, 1997, p. 43). The surveyed *iddir* members have also saved in assets worth birr 150,000 along with their savings in cash.

4.2.7 Impact on Women:

The focus of ACORD's poverty reduction program in Dire Dawa are women. About 80% of the credit recipients in the *Iddir*-RCF scheme are women. Along with economic benefits that women generate in their involvement in microcredit programs, there are other equally significant benefits that they are expected to maximize. Such benefits, among others, include the improvement of women's roles in decision making, acceptance by the community, improved capacity of discharging social obligations like attending weddings, mourning, visiting mothers at birth-giving, etc.

Women credit beneficiaries who are covered in the survey are about 163. This makes 81.5% of the sample population. About 77.3 % of the surveyed women *iddir* members have reported improvement in decision making after joining the credit scheme. Regarding hosting guests in the household, 75.5% of women credit recipients have reported better conditions after the loan scheme; while 79% are convinced that they are given better respect and acceptance by the community as a result of running microfinanced business activities. Besides, about 74.8% of the surveyed women credit beneficiaries have reported that the credit scheme has enabled them to discharge traditionally established social responsibilities like attending weddings, mourning and visiting mothers during giving birth with some gifts to the latter. The improved economic condition of women brought about by the *Iddir*-RCF scheme has therefore resulted in trickle-down effects that are reflected in broader perspectives as mentioned above.

Along with improving the economic condition of women the microcredit scheme, has contributed to the improvement of their status in the community and this will provide them with the leverage to empowerment.

4.2.8 Overall Impact of the *Iddir*-RCF Scheme

Along with the envisaged parameters that are employed for the assessment of the ACORD-initiated microcredit program in Dire Dawa, the response from the surveyed *iddir* members as regards the overall contribution of the program to the welfare improvement of the clientele is worth mentioning.

Of the 200 *iddir* members covered in the survey, 179 have reported that the credit scheme has positively contributed to the improvement of their living conditions. The rest 21, i.e., 10.5% of the sample population have reported that they have not observed any change in their overall economic and social conditions as a result of getting financial services in the *Iddir*-RCF scheme. This reaction coupled with the aforementioned impact measurement parameters like employment, income, access to health services and education, etc. clearly demonstrate that ACORD's microcredit intervention through *iddirs* in Dire Dawa has on average resulted in positive impacts in the overall welfare conditions of beneficiaries. These sets of results however have to be cautiously taken, as it is impossible to maintain a cause and effect relationship between the provision of credit services to the poor and welfare improvements.

4.3.Loan Repayment Performance and Determinants:

The repayment rate is the most commonly used performance indicator of a credit scheme. The repayment rate measures the ratio of payments made to payments scheduled as due at a particular time (Johnson & Rogaly, 1997).

The *Iddir*s-RCF credit operation in Dire Dawa is reported to have performed a loan repayment rate of 91.8% as at December 31, 1999. Loan defaulted as percent of loan due for repayment is reported to be 8.2% (See ACORD Dire Dawa, Annual report, 2000). On the other hand the average repayment performance of the surveyed 200 borrowers has been 89.3% showing a 2.5 % decline from what has been reported by ACORD for the whole of the *Iddir*s-RCF operation.

The repayment performance of the *iddirs*-owned micro-credit operation in Dire Dawa i.e., 91.8% is almost similar to what has been reported by Tamiru and Mengistu (1998) for the MTDP. The repayment rate reported for MTDP was 92%. Berhanu reported 87% for the non-interest bearing micro-credit operation of POCSSBO. Seifu (1998) reported 97.8% for DECSI while Zegeye (1999) reported over 99% for ACSI.

For the Dire -Dawa *Iddir*s-RCF credit operation to be sustainable, persistently high repayment rate records have to be maintained. The average repayment record achieved (91.8%) by the *iddirs* has to be kept-up and even be improved if the financial portfolio of the *iddirs* has to remain healthy. Repayment rates of less than 95% are not acceptable (Fidler and Webster, 1990). To maintain a sound repayment rate performance in a micro-credit scheme, it is worth identifying the factors that determine loan repayment.

In connection to specifying the factors that influence and/or determine loan repayment performance for the ACORD Dire Dawa *Iddirs*-RCF scheme a recursive model that contains two structural equations is estimated suing LIMDEP 7. Before estimating the Rate of Loan Repayment (RLR) equation, one of its determinants which appears as an endogenous variable in the RLR equation is estimated as it is influenced by a host of factors. Thus, loan diversion, i.e. ratio of loan spent on non intended activities to total loan proceeds (Kulundu, 1992) is modeled and the fitted (predicted) values of the Rate of Loan Diversion (RLD) along with other explanatory variables are used to estimate the loan repayment rate (RLR) equation. In the hypothesized model, the variable " Other Credit Sources (OCS)" was placed as one of the explanatory variables in the RLR equation. But survey responses of 192 *iddir* members indicate that they have no other credit source except the ACORD *Iddir*-RCF program component. Hence, the variable is dropped, as 96% of the respondents have no other sources of credit.

The problem of hetroscedasticity which is mostly prevalent in cross- section data is checked and taken care of in both equations using Limdep.The loan diversion model (RLD) is statistically significant as its Likelihood Ratio (LR) statistics, distributed Chi Squared with 7 degrees of freedom is statistically significant at 1% significance level.

For regression results of the Loan diversion model see the table below:

Table: 4.3.1 Hetroscedasticity-Corrected Maximum likelihood Estimates of the Tobit Model

<u>for Loan Diversion Equation:</u>

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]
Constant	-.758837	.504900	-1.503	.1329
LA	.384890	.110878	3.471	.0005 *
BLE	.485962	.509026	.955	.3397
LSV	.114451	.157242	.728	.4667
ROI	-.224955	.106823	-2.106	.0352 **
ELIR	-.124610	.189003	-.659	.5097
UBK	-.537951	.282113	-1.907	.0565 **
DS	.407859	.175522	2.324	.0201 **
Log likelihood function =	-59.87187			
LR Chi2(7)	236.6			
Number of observations	200			

N.B: * = significant at 1%, ** = significant at 5%

As can be observed from the estimated loan diversion equation, the loan size (LA), use of bookkeeping (UBK) and dependent size (DS) variables are found statistically significant at 1%, 5%, and 5% level of significance respectively. The signs of these variables are synonymous with what had been hypothesized. The higher the loan size the greater the possibility of diversion and hence this coefficient is positive as expected. The application of bookkeeping by a borrower provides him the knowledge to sort out funds generated from loan-financed activities from other incomes. Hence, a borrower with a knowledge and application of an accounting system is less prone to diverting loan. The sign of this variable, therefore, is negative as expected. Loan diversion was hypothesized to vary positively with dependent size of a borrower. As expected the sign of this variable is positive. Rate of interest (ROI) is also significant, but with unexpected negative sign implying that as interest rates go high diversion goes down.

The rest of the variables that are hypothesized as influencing loan diversion are found to be statistically insignificant. These are borrower's level of education (BLE), loan supervision visits (LSV), and expediency of loan issuance and repayment (ELIR). The signs of the variables BLE and LSV are contrary to our expectation. Borrower's level of education and supervisory visits were expected to show positive signs. Though, the expected signs of these variables could not be realized, they are all found to be statistically insignificant. Expediency of loan issuance and repayment (ELIR) has a positive sign as expected but is insignificant.

Among the three variables that turned out to be significant and whose signs are as expected the use of book keeping (UBK) variable is consistent with the findings of Mengistu (1997), and Berhanu (1999).

The Tobit model used for determining the factors that influence loan diversion for the Dire Dawa *Iddir*s-RCF scheme, therefore, depicts that factors such as the size of loan issued, the use of bookkeeping and the dependent size of a borrower are significant factors that influence loan diversion.

Taking the fitted values of the Loan Diversion Rate (RLD) as estimated by the Tobit model, a binomial probit model has been estimated for the Rate of Loan Repayment (RLR) equation by inserting the predicted values of the former in to the RLR equation.

The estimated model for full loan repayment performance is statistically sound as the Likelihood Ratio (LR) statistic, distributed Chi squared with 14 degrees of freedom is significantly different from zero at 5% level of significance.

The results of the maximum likelihood estimates of the probit model for the full loan repayment equation are presented as follows:

Table: 4.3.2 Hetroscedasticity-Corrected Maximum likelihood Estimates of the Binomial

<u>Probit Model for Full Loan Repayment Performance Equation:</u>

Variable	Coefficient	Z-Value	P[|Z|>z]	Slope	Z-Value	P[|Z|>z]
Constant	-4.015059	-1.395	.1629	-1.133265	-1.506	.1321
LA	-.406501	-.748	.4545	-.161610	-1.253	.2102
G	-.370883	-.712	.4763	-.104683	-.742	.4580
BLE	-.715166	-.451	.6518	-.201858	-.450	.6525
OIS	1.308855	2.896	.0038	.369429	3.892	.0001 *
LSV	.868239	2.035	.0418	.245063	2.331	.0198 **
TA	-.219486	-.571	.5683	-.619507	-.559	.5763
COD	.693513	2.157	.0310	.195746	2.328	.0199 **
IFL	.340840	3.089	.0020	.962034	4.101	.0000 *
ROI	.166031	2.145	.0320	.468628	2.910	.0036 *
ELIR	-.962509	-.210	.8340	-.271671	-.209	.8344
UBK	-.618975	-1.647	.0995	-.174708	-1.788	.0737 ***
BA	-.665859	-.694	.4879	-.187941	-.713	.4760
BASQ	.897564	.808	.4189	.253340	.837	.4023
RLDH	2.386417	1.316	.1883	.673575	1.463	.1435
Log likelihood function		-93.55579		Restricted log likelihood		-136.0584
Chi-squared (14)		85.00522		McFadden's R^2		0.312
Number of observations		200				

NB: RLDH= Predicted (fitted) value of the rate of loan diversion.

* = significant at 1%, ** = significant at 5%, *** = significant at 10%

The binomial probit model's estimates of the full loan repayment performance equation show that the variables, other income sources (OIS), loan supervision visits (LSV), cost of default (COD) and income from loan financed activities (IFL) are as hypothesized positive and significant at 1%, 5%, 5% and 1% level of significance respectively.

The other significant variables found in the model are the rate of interest (ROI) and the use of bookkeeping (UBK) variables. Based on the nature of the credit market and the information asymmetry theory, it was hypothesized that the higher the interest rate charged on borrowed funds, the more the possibility of the existence of adverse selection (exante) and moral hazard (expost). Incidences of adverse selection and moral hazard are on the other hand deemed to affect loan repayments negatively. The coefficient for the rate of interest is however positive, implying that a borrower will be a good loan repayer as the rate of interest increases. Though, this appears apparently contradictory to the conjecture of the credit market model, it can be reasoned out that in a user-owned local financial institution the prevalence of information asymmetry is minimal and borrowers consider the interest charge as own saving and hence, will be feeling as if they have higher savings at higher interest rates.

On the other hand, the use of bookkeeping by a borrower would assist him to identify his repayment status at any one time and respect his repayment schedules.
The coefficient for this variable, however, has been negative indicating that the use of bookkeeping contributes to poor loan repayment performance. This is apparently unusual; but for the Dire Dawa *Iddir*-RCF scheme, the few record user borrowers (22.5%) must have been on average unlucky in their business endeavor.

The signs for the variables of loan size (LA) and rate of loan diversion (RLDH) are respectively negative and positive which appears consistent with the hypothesis. On the other hand however the coefficients of both variables are insignificant.

The rest of the variables that are hypothesized as determining full loan repayment performance of the Dire Dawa *Iddir*-RCF credit operation, have turned out to be insignificant though they appear to have signs opposite to what had been hypothesized.

The perceived cost of default (COD) variable is consistent with what Berhanu (1999) estimated for POCSSBO both in signs and statistical significance. The rest of the findings are not however synonymous with what was reported by Berhanu (1999).

4.4. Institutional Viability of *Iddir*s-managed Credit Scheme:

The institutional viability of ACORD's credit operation through *iddirs* in Dire Dawa is worth looking at, as it helps to replicate the positive outcomes to many traditional social institutions in the country.

Institutional viability in a micro credit program can be achieved if effective management and committed workers are put in an appropriate institutional framework which has the right incentive scheme and training facilities to its employees. Institutional viability is gauged by the ability in planning, designing, implementing, monitoring and evaluating program activities in a micro–credit program (Thillairajah, 1994).

In light of the above, therefore, the institutional viability of the Dire Dawa *Iddir*- RCF scheme is gauged in its compliance with the existing legal and regulatory framework, the competence of *iddir* leaders in credit management, the existence of capacity building and incentive schemes, the structure of *iddir*s as institutions, and the participation as well as commitment of members to program sustainability.

As ACORD works with *iddir*s, it makes sure that all legal requirements are met, before releasing any size of grant. Among the procedures that *iddir*s undergo for the provision of financial services with monetary support from ACORD, written agreement of members for involvement in the RCF scheme as well as a written bylaw is submitted to ACORD. Recognition of these *iddir*s by local government structures like the kebeles is a necessity. Besides, the Labour and Social Affairs Bureau of the Dire Dawa Regional State issues legal certificates for these *iddir*s as a permit to let them indulge in small loan intermediation.

The other instrument by which the ACORD-innovated *Iddir*-RCF microcredit scheme's institutional viability is measured is the competence of *iddir* credit committees in the management and pursuit of the credit program component. For better credit management, it is obvious that those in the leadership ought to have better education, and training pertinent to sound credit management. When it comes to the surveyed *iddir*s, it is found that over 50% of all members are educated only up to grade 4. Only 23% of *iddir* members are found to have an educational level of grade 9 and above; and this category of *iddir* members is practically and potentially competent to assume the credit management and overall leadership position.

The average number of credit committee members, which is responsible for managing the *Iddir*-RCF program, is four. Committee members are elected democratically by *iddir* members and hence the leadership is participatory. Despite that members of the credit committee are devoted to the provision of fair and appropriate services to their respected members, very few (16%) get some financial incentives from the program. On the other and, it is understood that about 90% of the credit committee members have taken training in one or more areas like bookkeeping, credit administration, organizational management, etc.

ACORD has a training and animation scheme as a complement to the *Iddir*-RCF credit program component. This is meant to forge a competent credit managing leadership among *iddir*s. ACORD also pursues a linkage program component among the *iddir*s in Dire Dawa in order to facilitate interactions among *iddir*s and relevant stakeholders like the Kebele administration, the municipality and other government and non-government institutions. The linkage program component also aims at creating and maintaining networks among *iddir*s through the formation of associations. The formation of associations as umbrella organizations will enable *iddir*s to pool financial, material and human resources both for the smooth operation of the RCF scheme as well as for overall poverty reduction. *iddir*s have now perceived the need to pool up strength through the building-up of associations in which 5-15 *iddir*s are brought up together to make one association. About 74% of the *iddir*s have organized themselves in eight associations. By doing this, it is envisaged that these traditional social structures (*iddirs*, *mahbers*, etc.) will gradually turn out to be formal institutions in which qualified personnel with the appropriate institutional structure and incentive mechanisms will be managing the credit operation.

ACORD's program in operating with the *iddir*s in Dire Dawa was initially planned to proceed until 1998. Having assessed the limitations in institutions building and other drawbacks, it has revised its phase-out strategy and decided to work until end of year 2000 in which time *iddir*s are expected to go on their own. The need for networked *iddir*s and strong leadership along with devoted and qualified workers who are rewarded through reasonable remuneration and incentives is felt both by ACORD and the *iddir*s. This signifies that the ground work for a viable microcredit institution is being laid. ACORD has currently built 7 premises, which have sufficient office rooms and training halls for *iddir*s that are forming associations under 3 sub-offices, i.e., Sabian, Police Meret, and Addis Alem.

Given the lack of incentive schemes and well structured organizational set-up along with the right personnel and office facilities for appropriate financial services provision, it is presumably premature to conclude that the Dire Dawa *Iddir*-RCF scheme is institutionally viable. On the other hand however, the groundwork for a viable institutional set-up is under implementation as *iddir*s have started to perceive the need to forge strong associations that can pull up resources for better and efficient operations.

4.5. The existence & extent of Information Asymmetry:

The credit market normally operates under information asymmetry. Major reflections of the information asymmetry problem are adverse selection and moral hazard. While adverse selection is an incident that stems from the lender's inability to sort out borrowers' characteristics, moral hazard occurs due to the failure of the lender to discern the action of the borrower (Jaffe & Russel 1976). High interest rate on loanable funds, lack of or weak enforcement mechanisms, lack of collateral, and problems of monitoring are among the factors resulting in failures in the credit market.

The committee of each *iddir* is primarily responsible for the issuance of loan proceeds and collection of repayments. Since *iddir* members live in close neighborhood and the credit committees are democratically elected on the principle of competence, it is hardly possible that hidden information about credit recipients exist. As per responses from the surveyed 200 *iddir* members, 195 have responded that they closely know the *iddir* members who are participating in the RCF scheme in which they are a member of. This shows that credit recipients and the credit management committees have almost full knowledge of the behavior, the social and economic situation as well as the household characteristics of members. The information asymmetry problem, particularly the issue of adverse selection is thus unthinkable in such traditional institutions in which members have lived and interacted with each other for years.

Since *iddirs*, *iqqubs* and the like, accept new members after having sufficient knowledge on the profile of the applicant both from himself as a source and otherwise, they have on average better information about their members as compared to formal insurance or banking institutions.

The other element that is worth looking at in relation to adverse selection as well as moral hazard is the rate of interest that different *iddir*s charge. It is interesting to envisage different interest rates charged on borrowed funds by the *iddir*s. Rates are fixed on the basis of mutual consent by members of *iddir*s, rather than on the principles of the credit market (i.e. credit rationing model). Since all members of *iddir*s are entitled to RCF, no borrower will drop out when he thinks that the rate of interest is unreasonably high. This is because that the borrower has an incentive to stick to what the *iddir* decides, as he thinks that others will use the matching fund he has contributed and ACORD's grant for which he is equally entitled to. The interest charged by the surveyed *iddir*s ranges between 12-40 percent per annum. The reason for those *iddir*s charging exceedingly high price for borrowed funds is to reap high returns and strengthen their loan portfolio for future credit intermediation.

Theoretically, high interest rate entails adverse selection and moral hazard on part of credit recipients. The adverse selection element is not however discerned when it comes to high interest rate charging *iddir*s. This is because dropping out due to high interest rate is not an option for reasons indicated above. On the other hand, survey findings show no systematic trend between loan diversion and rates of interest.

See table below:

Table: 4.5.1 No. of Loan Diverters by Rates of Interest:

Iddirs Interest Rate Charge/per Annum	*No. of Loan Diverters*	*Percentage*
12	4	11.43
18	2	5.71
20	3	8.57
21	3	8.57
22	7	20.00
24	15	42.86
40	1	2.86
Total	*35*	*100*

Source: Computed from survey data

Had the observed high interest rates charged by some *iddirs* pushed some borrowers to divert funds to risky businesses, it is apparently intuitive to assume that the higher the interest on borrowed funds the higher the number of loan diverters.

High interest rate provides an incentive to borrowers to cling onto high return but highly risky projects. In this connection it is plausible to assume that that those agents who commit moral hazard have lower repayment performance. Moral hazard can be explained by the involvement of borrowers into risky projects whose failure might entail defaults or poor repayment performance. The repayment performance of the surveyed *iddirs* initially shows a downward trend as interest rates increase and latter on improves at even far higher rates. Thus, the survey data does not lend the confidence to conclude that there is an interest rate-induced observation of a moral hazard.

For clarity see table below.

Table: 4.5.2 Relations in Iddirs Rates of Interest & Repayment Performance:

No. of Borrowers	*Interest on Borrowed Funds % per Annum*	*Loan repayment Performance in %*
10	12	99
19	18	75
32	20	78.1
15	21	97.8
61	22	93.6
48	24	88.6
15	40	93
Total 200		

Source: Computed from survey data

Strict loan supervision by *iddir* members and credit committees also guard borrowers against committing moral hazard. Since members live in close neighborhood and with frequent observation of the activities of loan recipients, it is very hard to commit moral hazard. Thus factors like peer monitoring and the social pressure that follows failure in repayment provide an incentive to borrowers to guard themselves against practicing moral hazard.

From the above argument and the survey findings, therefore, it is possible to conclude that the Dire Dawa *Iddir*-RCF program does not suffer from the problem of information asymmetry captured by both adverse selection and moral hazard. This is apparently so, because the *iddir*s resort to peer monitoring, reciprocity and high social pressures in both client selection and loan repayment enforcement. High interest rates could not either induce adverse selection and moral hazard, essentially because these institutions provide user-owned financial services. *Iddir* members are both the owners and clients of the credit providing institution. Thus, any level of interest rate, as long as it considers the capacity of its members and is determined on consensus basis, can be charged without adversely affecting loan repayment performance. High interest charges mean high savings for *iddir* members. Yaron (1992), in his study on four microfinancing institutions in developing countries, has concluded that information asymmetry is relegated due to the use of existing social structures, peer pressures and self-help groups.

CHAPTER FIVE

CONCLUSION AND POLICY IMPLICATIONS

5.1. Conclusion:

The pursuit of organized microfinancing operations through traditional community based organizations like *iddir*s is a new phenomenon in Ethiopia. ACORD is probably a pioneering NGO that discerned the potential of traditional institutions in serving as entry points for poverty reduction and development initiatives. As it is persuaded that *iddir*s are flexible and can adapt to changing socio-political environments, ACORD initiated a user- owned microcredit scheme in Dire Dawa for poverty reduction.

The research findings on the ACORD initiative in Dire Dawa indicate that the *Iddir*s-RCF scheme has impacted considerable positive shocks on the wellbeing of program beneficiaries. The *Iddir*s-RCF scheme has resulted in an increase in the income of 95 % of the sample respondents. About 43% of the surveyed borrowers have managed to increase their asset holdings, with a total value of the purchased stuff estimated at Birr 150,000. The program's impact on employment is promising. About 18.2 % of the *Iddir*s-RCF members who had not had any means of livelihood have achieved self-employment as a result of the RCF scheme. The program has also enabled successful members to access better medical services through self-payment; and household spending on education has on average increased after the *Iddir*-RCF scheme. Consumption expenditure and nutrition of households have on average shown positive changes due to the provision of financial services to members of *iddir*s.

The impact on savings, unlike others, is not that impressive particularly with regard to members' voluntary cash savings in their *Iddir*s-RCF. Though the number of saving members has increased, per capita saving has gone down from Birr 470 per annum before the loan scheme to Birr 403 after the loan scheme.

Women have reported as having accessed better income, secured respect at home and in the society at large. The impact of the *Iddir*-RCF on members with respect to changes in expenditure on assets, medical and educational facilities as well as consumption is also verified through hypothesis testing by Wilcoxon Matched Pairs Non-Parametric Test.

Some microfinance specialists believe that the market place provides reasonable proxies for impact data. This implies that if clients of a microcredit program pay the full cost of the service they receive and pay back their loans on time and regularly come back for more loans, then the program must have resulted in a positive impact (Cheston, 1999). Assessing repayment performance and looking into the determinants of full loan repayment are thus, very vital in microcredit operations. The Dire Dawa *Iddir*s-RCF scheme's repayment performance is sound (over 90%) by many microfinancing programs' standard in the country.

Regarding the findings of the research with respect to the determinants of loan repayment, loan diversion rate is one. Loan diversion rate is also influenced by a number of factors. The regression results indicate that loan size and number of dependents have a significant influence in loan diversion. This is compatible with what is hypothesized. On the other hand the use of bookkeeping by a borrower reduces diversion .The regression result for this coefficient is significant at 5% and the sign is negative as expected. Rate of interest was hypothesized to increase diversion due to probably moral hazard. On the contrary the regression result is significant and negative, implying that as rates of interest increase diversion decreases. Though some variables of loan diversion are significant, the fitted value of the loan diversion rate has turned out insignificant when placed as one of the regressors in the full loan repayment equation.

Among the other variables that are hypothesized as determining full loan repayment, other income sources, loan supervision visits, perceived cost of default and income from loan financed activities have turned out significant and positive as expected. Rate of interest has an unexpected sign and is significant; while the rest of the variables are all insignificant and with mixed signs.

Regarding the institutional viability of *iddir*s-managed microcredit operations, the Dire Dawa *Iddir*s-RCF operates in a legal environment led by democratically elected credit committees. ACORD- financed training and capacity building supports are given to *iddir*s in different occasions. The need for putting up an umbrella organization that caters to the various institutional demands of the *iddir*s is currently being felt. As a result, *iddir*s are willingly merging themselves into associations. To support this initiative ACORD has constructed office buildings and training halls for *iddir* associations. For the *Iddir*s -RCF credit operation to be sustainable, however, a well-structured organizational set-up along with right personnel and incentive schemes should be in place.

The issue of information asymmetry, particularly adverse selection and moral hazard are less of a problem as the findings show. Adverse selection in the first place is not an issue for any *iddir* member is essentially well studied before joining the *iddir* let alone taking loans. Moral hazard is apparently under control due to peer monitoring and frequent loan supervision visits by *iddirs*' credit committees. The findings depict that high interest rates have not either negatively affected repayment performance as *iddir*s fix rates based on members' consent and economic capacity. The borrower on the other hand considers high interest charges as own savings for the *Iddir*-RCF is in effect his own financial enterprise. The fact that the *iddir*-based microcredit operation is kind of user-owned financial intermediary, gives every member an incentive to monitor the actions of misbehaving borrowers. It is not like formal banks where when the borrower loses the lender loses and when the borrower gains both gain. In a user-owned financial institution as in the Dire Dawa *Iddir*s-RCF, both the borrower and the lender lose when the former loses and vice versa.

5.2. Policy Implications:

The findings of this research indicate that financial services to the poor reduce poverty by enabling agents to engage in self-employing micro business activities. Small loan programs assist credit recipients to increase and stabilize incomes, generate additional assets, access better nutrition, medical and, educational facilities. Women can particularly benefit in such programs both in socio-economic and political terms. Entrepreneurial skill development is also an inevitable impact for microcredit beneficiaries. Hence microfinancing services play a positive role in the reduction of poverty for Ethiopia.

It has so far been perceived that traditional social infrastructures like *iddir*s play more of a reciprocity- based type of socio-economic roles. But, based on experiences of the ACORD-initiated *Iddir*-RCF scheme, it ought to be understood that microcredit intermediation can successfully be carried out through such institutions with out negatively affecting their traditional roles. From the conducted research, it can be learned that it is possible to bring about positive income, employment, nutrition, etc. shocks by implementing a microcredit program through *iddir*s which are participatory, flexible, less costly and shock-surmounting. Savings mobilization however has to be given due emphasis if the program's impact has to sustain. In this connection, mandatory saving practices are worth considering for the Dire Dawa *Iddir*s-owned credit scheme.

Since loan repayment performance is an issue to carefully follow-up, the factors that determine full loan repayment have to be taken care of. The *iddir*s in Dire Dawa and ACORD as an intermediary have to focus on stringent loan supervision, high cost of default and actions that support the borrower's capacity to generate greater income from loan financed activities. Since the aforementioned variables are found to significantly affect the loan repayment performance of the Dire Dawa *Iddir*-RCF scheme, they ought to be given the due consideration. Regression results also show positive signs and significant results for the interest rate variable and the availability of other sources of income to a borrower. This implies that *iddir*s operating under high rates of interest should be encouraged and people who have other income sources are less risky and can manage borrowing greater loan sizes.

The institutional sustainability of the *iddir*-based microcredit operation in Dire Dawa is attainable if the capacity building support of ACORD is extended until the time that *iddir*s can move on their own as efficient microfinancing cooperatives. If ACORD's withdrawal is however premature, then the *Iddir*s-RCF scheme will contract a withdrawal syndrome from the former; and hence, the whole exercise will be frustrating not only to these *iddir*s but to those who are planning to follow suit. Institutional sustainability also demands commitment on part of the *iddir*s themselves and support by policy makers and local government structures. Encouraging signals are observed by the mentioned stakeholders in this respect.

The point of information asymmetry in user-owned financial services like the credit operation of the *iddir*s in Dire Dawa, should not be an issue to be obsessed with. Since selection of *iddir* members and then borrowers is a public knowledge, it is unlikely that loan contaminators will be eligible for credit services. Likewise moral hazard is checked through the combined pressure of *iddir* members who frequently exchange information on the actions of members not only in credit meetings but also in social occasions like weddings, burials, etc.

The practice of charging different interest rates, in different *iddir*s has to be synchronized with the new organizational concept of the formation of *iddir* associations. If all *iddir*s have to work under one umbrella, the charging of different rates of interest may be non-feasible. Rather, a uniform interest rate that reflects the opportunity cost of capital might be a viable option.

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Case Studies:

Case One:

Sewasew Tadesse, 31 has been a member of a CBO called Idget Beandinet since the start-up of the ACORD CBO-RCF program in 1995. She is a resident of Woreda 3 Kebele 14, a neighborhood called Kebrijollie. Sewasew works for the Kebele administration for a meager income. When she first heard of the ACORD program she decided to take a loan of birr 2000. As she has an extra room in her residence, she proposed a joint business to a man who pursued a wholesale trade of alcoholic drinks. The man had a problem of having a store in a good location in the town and she had the house to offer him. She contributed the house and the 2000 birr loan to the business and they agreed to work together and share the profit proportional to their invested capital. Sewasew took another round of credit from her CBO after repaying the first one in ten equal installments with 10% interest. The second round loan was birr 2500 payable in ten months with an interest rate of 10%.

Sewasew says that she has made a profit of about birr 2000 from the first round of loan and birr 4000 from the second one. After the loan she has been able to buy a refrigerator and, a 14-inch TV. Besides, she brings up a child that she found in the street and pays for the schooling of her sister's two children.

Sewasew's partner has now moved to another location as his business has grown-up and she has no partner now. Presently, she has rent some space in her premise for a garage. She is now supplying breakfast and light food services to the garage workers. Her success to the business, as she remarks, is a result of the credit service as well as the training that she has taken through ACORD. She was trained in bookkeeping and business management. As she is the secretary of her iddir (CBO), she has a good exposure to members' problems. She says that there are many people frustrating in our iddir due to that they can not pay back their loans. This is so because the business environment in Dire Dawa has deteriorated. Dire Dawa, as Sewasew puts it, was a center of contraband market. Nowadays, the contraband market on which the livelihood of most poor people in Dire Dawa had been based on is no longer there due to strict government control.

Case Two:

Mulu Abay, 38 and married is a member of CBO called Lideta Yeguada Iddir. Mulu's husband is a demobilized member of the army and the couples have two children. Mulu's husband currently has no job but she wins the family's bread by retailing groceries. She goes to Lange and Kulubi (60-70 kms) to buy the stuff she needs at lower prices and sells them in Dire Dawa at profit.

When ACORD's program started, she felt optimistic and joined the credit scheme. Initially she took a loan of 300 birr and did a good job. She made sound profits from the first round by trading the groceries that she brought from Lange and Kulubi and fully repaid her debt.

Mulu borrowed birr 375 for the second round and went on doing her old business at increased scales. Latter on, she also started fetching eggs from Kulubi for sales in Dire Dawa. As she found this business more lucrative, she requested an additional loan of birr 334. As her business grew she felt that she has to bring a much higher number of eggs to the Dire Dawa market. One day, she bought eggs worth 562 birr and took a mini bus to Dire Dawa. When she reaches Dengogo, a place close to Dire Dawa, the mini bus turned over and Mulu lost all her eggs. Now she is liable for unpaid debt, worth birr 679.

Mulu's husband was dismayed by what has happened to his wife. Now, he has joined the army. Mulu was very disappointed by what has happened to her. She had a stress as she was asked to repay and got sick. She then went to the countryside where her mother lives and washed and drunk herself with the holy water (traditionally believed as having a healing power) for 14 days. Now she is relieved from her sickness and her mother has brought her back to Dire Dawa. The house is empty; her husband has not sent her anything yet. The children have nothing to eat. Mulu is now working as a daily laborer carrying stones for construction for 8 birr per day. She provides her mother with the 8 birr that she is daily paid and her mother does the household work including the caring of the children.
While Mulu is trapped in this problem, her sister came from the countryside escaping abduction. Mulu's burden has now increased, as she has to take care of her sister too. Mulu says I am unable of repaying my debt out of the eight birr that I now get as a daily laborer. Mulu says "I will never take any loan hereafter; I am only looking forward to repaying the loan that I took from my CBO". "On top of my poverty, I have lost my sleep as I feel ashamed when I see ACORD's workers and members of my CBO" says Mulu. Mulu does not go to meetings and covers her face when she sees ACORD's staff members.

Case Three:

W/ro Tenaye Gebeyaw is 28, has three children and married .She has been living in Dire Dawa for the last 8 years. When she first came to Dire Dawa her purpose was to collect the things of her late sister who had been murdered by her husband. The process of claiming and possessing her sister's property took her long while in due course she happened to get married to her present husband. Her husband used to work in the Dire Dawa Textiles Plant for a very low wage and is currently retrenched.

Tenaye says that the income they had for a family of 6 had been so low that they usually fail to feed themselves properly. In the mean time, Tenaye heard of the ACORD CBO-RCF scheme which provides saving and credit services to its members. She then decided to take some loan through her iddir. For the first round she took birr 200 and started selling tea and bread for a water project construction workers. Tenaye did a good job and had a handsome profit out of her small business. Tenaye was able to buy a TV set a carpet and some chairs for her small restaurant from the proceeds of the loan financed activities.

Tenaye for the second time took 400 birr from her CBO-RCF and changed the location of her business to a new road construction site at Sabian. She did this, because the water project was completed and her customers are no longer there. Tenaye, this time did not have as huge profits as she had in the first loan round. This is so, because there were many other competitors in the business of providing food services to the road construction workers at Sabian. But, still she made some profit, though not as large as in the past. She fully repaid her loan and is planning for another round of a higher loan size. She says that she has bought an electric "mitad" (a machine for local bread making) as a preparation for her next business.

Tenaye confidently says " As I take the third round bigger size loan I will definitely open up a small restaurant at Dengogo where a road construction project by Chinese engineers will be operational".

Profile of Surveyed CBOs of the ACORD Dire Dawa Urban development program

No.	Name of CBO	Date Of Establish-ment	CBO's Capital (Birr)	Monthly Member Contribution (Birr)	ACORD's Grant (Birr)	CBOs Matching Fund Contribution (Birr)
1	Fana	01/01/95	13000	10	12000	1000
2	Bisrate Gebriel	01/01/83	7800	2	7000	800
3	Idget Beandinet	01/01/97	22000	2.50	18000	4000
4	Kidane Mihret	01/01/80	2000	n.a	2000	n.a
5	Jerusalem	01/01/96	17000	3	15000	2000
6	Kristos Samira	09/01/92	11100	n.a	10000	1100
7	Jema Fersema Yeqan	01/01/72	11100	2	10000	1100
8	Hadwonag	04/04/95	15400	11	12000	3400
9	Agapie	01/01/95	18000	4	15000	3000
10	Jemata Jallelie	07/01/97	20140	5	18000	2140
11	Gebriel Yeguada Iddir	01/01/94	5000	2	4000	1000
12	Gedam Sefer Fetnoderash	01/01/85	5000	2	4000	1000
13	Abesha Yeguada Iddir	01/01/92	17807	n.a	15000	2807
14	Alemgena	01/01/94	12000	n.a	10000	2000
15	Idget Begara mahber	01/01/96	16026	14	12000	4026
16	Ketena 3 Lideta Mariam	01/01/94	18000	2	15000	3000
17	Yenuro Metasebia	05/01/91	21000	6	18000	3000
18	Mebrat Hail Wotatoch	01/01/91	18000	5	15000	3000

Source: ACORD Dire Dawa Office:

DECLARATION:

The thesis is my original work, has not been presented for a degree in any other University and that all sources of material used for the thesis have been duly acknowledged.

Declared by:	Confirmed by
Fantahun Melles	Ato Abebe Shimeles
________________	________________
Candidate	Advisor
June, 2000	June, 2000