Determinants of Loan Repayment Performance of Micro and Small Enterprises in the Case of Adea Woreda, Bishoftu Town

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Abstract

The aim of the study was to analyze Determinants of loan repayment performance of Micro and small enterprise financed by Addis credit and saving institution in Case of Adea woreda, Bishoftu city. The study used both questioner and interview form sample respondent of selected leaders of MSE. Out of 240 MSE the Target Participants comprised of 120 leaders of MSEs were selected by using simple random and then stratified sampling technique were used. Data was analyzed by using Descriptive statistics and inferential statistics with STATA 14.2 versions. The result showed that majority of the sample borrowers are males which constitute 62.5% as 37.5% are females of this 29.2% Male respondents " were relatively more defaulter than the female respondents" which is 18.3%. Supervision for loan utilization and repayment, training offered by the microfinance institution, social ties, ease of access for loan have statistically positive impact on repayment of loan, as group composition, enterprise member size and loan repayment period have negative and statistically significant impact on loan repayment. Based on the findings concerned body should give more awareness and training, encourage and supervised the borrower.

Keywords: MSEs, loan repayment, performance, supervision and Microfinance. **DOI:** 10.7176/RJFA/14-2-01

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INTRODUCTION

Developing countries are facing different types of problems such as poverty, unemployment, low per-capital income, and absence of equal income distributions. To overcome these problems and create job opportunities for the poor, the government frames different strategies and policies. Like that of the developing countries in Africa, Ethiopia is one the developing countries that were announced as the most poorest and low leveled income groups of the world over the last few decades. During these periods, the economy of the country was undermined because of different factors which can be mentioned as internal as well as external factors. An increasing rate of poverty, famine and high rate of unemployment were the major factors that have great contribution for the economical undermining at large. Poverty and unemployment was a great problem in Ethiopia that needs the government attention to eradicate through microfinance services delivery to the non-served or under-served poor people's (Wolday, 2002).

In such away, the Ethiopian government development strategy initiated a legal and policy framework for MFIs in the establishment of sustainable microfinance institutions serving large number of poor people in 1996 through Proclamation #40/1996 (Gebrehiwot and Wolday, 2002). Sixteen MFIs have been licensed by the NBE and started delivering micro finance services since the issuance of this proclamation. Although the microfinance industry were started their financial services most lately, the industry has shown the remarkable growth in terms of clients outreaches and provision of diversified financial products for the needy societies at large (Wolday, 2000).

Currently, there are about 35 microfinance institutions operating in the country and providing different financial services like loan, savings, and insurance services to rural group based clients and urban small and micro enterprise practitioners .Their total capital and total asset also increased significantly by 23.2 and 20.2 percent and reached Birr 8.876 billion and Birr 36.67 billion, respectively. These micro-finance institutions mobilized deposits, which went up by 25.2 percent and reached Birr 18.43 billion (NBE, 2016). Hence, Micro and Small Enterprises financed by Addis micro finance is selected for the study because of that it is the one which has a large coverage and limited study area when compared to others especially for MSEs and has lots of customers and it is found to be financially strong with high loans supplying capacity compared to others and is playing a vital role in reducing unemployment portion of the population in the study area.

Statement of the problem

Loan recovery is one of the key objectives of financial institutions as it enables them to refinance and to reach more people. To have a positive impact on the economy of a country, the institutions must be able to loan out funds and recover the same to remain relevant in the finance industry. Loan recovery is a strategic activity for financial institutions. For any economy to thrive there must be funds to foster investment, which leads to well-being of the population. Proper investments eventually bring about poverty reduction through creation of employment. According to Hunte (1996) loan default problem are destroyed lending capacity as the flow of loans decline transform loaning to the benefit agency, as a substitute of viable financial institution. According to

the author The problem is incorrectly penalized creditworthy of borrower whenever screening mechanism is not efficient. Yidnekachew (2018) loan repayment decline is the problem, which reduced economy. The credit default is obstacle for the next group of MSE borrower because the lending institution is precaution to releasing loan. Fikirte (2011), MFIs providing services to borrower in and around the capital city, has a default experiences due to insufficient loan size, unavailability of grace period and weak in following up to retrieve loans

Loan repayment performances of MSE's Sectors for the successive past four (4) years financed by Addis saving and Credit institution of Adea, woreda Bishoftu city

Year	2010E.C-2011E.C	2011E.C-2012E.C	2012E.C-2013E.C	2013E.C-2014E.C
Amounts Disbursed	15,563800	16,187,850	27,345,000	23,400,000
Amounts Collected	14,104,600	15,100,000	25,000,000	21,100,00
Amounts Defaulted	1,459,200	1,087,850	2,345,000	1,300,000
Default rate	9.3%	6.7%	8.7%	9.5%

As can be seen in the above table the default rate of the MSE"s borrowers of different sectors for the last four years was reached about 10.8% at average which is greater than the National Bank of Ethiopia's (NBE) minimum requirement set for all financial institutions, i.e., <5 percent default rate or >95 percent expected to be collected. Separately, the default rate was 4%, 6.7%, 8.7%, and 9.5% in the successive four years from 2010/11E.C - 2013/14E.C respectively and the trend of default was not constant and is increasing. Though the default rate was decreased in successive years, this indicates that the loan repayment performances for the borrowers of MSE"s Sectors have been significantly fluctuating from time to time and become severe in the current year. In such away, whether the defaulting problem is random and influenced by inconsistent behavior or it is influenced by certain factors in a specific situation, it needs an empirical. since the causes of loan repayment delay by borrowers of micro finance institutions may differ from region to region, zone to zone and from one MFI to the other,

The main Objectives of this study was

- ✓ To identify factors affecting loan repayment performance of Micro and Small Enterprise financed by Addis saving and credit institution a case of Adea woreda, Bishoftu city.
- ✓ To identify the major challenges facing micro finance clients (Micro and Small Enterprise) in the study area.

Review of Related Literature

Financial and social inter-mediation can be provided by microfinance. The financial inter-mediation includes the provision of savings, credit and insurance services, while social inter-mediation involves organizing citizen groups to voice their aspirations, raise concerns for consideration by policy makers, and develop their self-confidence (Robinson, 2001). Conroy (2002) defined microfinance as the provision of a broad range of financial services such as deposits, loans, payment services, money transfers, and insurance to poor and low-income households and the MSEs. Microfinance is defined as lending small amount of money for short periods with frequently repayments. Further, Grameen (2011) stated microfinance that it is made up of a variety of financial services usually available to low-income entrepreneurs. Christen *et al*, (2003) defined microfinance as the provision of banking services to lower-income people, especially the poor and very poor.

Rose (2007) defined successful loan repayment as the ability to repay the loan as per the loan agreement and loan defaulting as the inability to repay the loan by either failing to complete the loan as per the loan agreement or neglect the loan. As to Rose, the causes of default in government micro credit programs in Kenya are found to be determined by a strong relationship between major sources of income, diversion of funds and domestic problems. Different factors matters the definitions of MSEs to address differently. It might be defined based on such factors as number of employees, volume of sales, and the capital value of the business (Zemenu & Mohammed, 2014).To sum up two types of definitions are there, namely, operational definition, which are largely used for working purposes and the other is theoretical definition, which are generally, employed to characterize the sector. In recent times, there has been some degree of convergence in MSEs definitions particularly in Europe. MSEs were also defined by European Commission as a combination of employee numbers, annual turnover or balance sheet total and ownership.

Enterprise	Sector	Employee	Capital
Micro-enterprise	Industry	\leq 5	≤ ETB 100,000.00
	Service	\leq 5	≤ ETB 50,000.00
Small-enterprise	Industry	6-30	≤ ETB 1,500,000.00
	Service	6-30	≤ ETB 500,000.00

Table 2-1: Definition of MSEs in Ethiopia

(Source: FMSEDA, (2010))

According to Abreham (2002), the study conducted on Loan Repayment and Its Determinants in Small Scale Enterprises Financing in Ethiopia: the Case of Private Borrowers around Zeway Area. Shows loan diversion is influence the loan repayment that loan recovery rate: - the borrower alternative source income, extensive experiences and educates are the better loan repayments are records that be significant and positive while repayment period and sex are association negatively significantly to loan repayments rate. Study made by Jemal (2003) conducted Microfinance and Loan Repayment Performance: A Case Study of the OCSSCO in Kuyu. Implies that education, availability of other credit source, suitability of loan repayment period, income values of livestock and being female are the factor increase probability of loan repayment performance. Further, number of dependent and being male are the factors reduce loan repayment. Further a study by Solomon (2013), on Factors influencing formal loan repayment performance of urban women in Tigray, A case study of DECSI, Adwa town woreda shows that level of education, income, loan size; numbers of times borrowed are important and significant factors that affect the loan repayment performance of MSEs in Tigray, while remain factor are insignificant influence loan repayment performance.

According to Fikirte (2011), study focus on Determinants of loan Repayment Performance: A case study in the ASCI, Addis Ababa, Ethiopia. The sample data was 200 respondents of clients randomly selected. she study result that age and five business types (baltina & petty market, kiosk & shop, services providing, weaving & tailoring and urban agriculture) are major factors in influencing loan repayment performance of the borrowers in ADSI, Addis Ababa. Further, sex and business experience are the factor that significant determinants of loan repayment rate. She recommends that Addis microfinance institution have internal and external problems like shortage of loan able funds for further expansion, competition, and improper interference of third party in the decision of loan approval.

Million et al, (2012) studied the determinants of loan repayment performance among smallholder farmers in East Hararghe zone, Ethiopia specifically Kombolcha and Babile Districts. Two-limit Tobit regression models were applied to identify factors that influenced loan repayment. The results indicated that agro ecological zone, off-farm activity, and technical assistance from extension agents positively influenced the loan repayment performance of smallholder farmers, while production loss, informal credit, social festival, and loan-to-income ratio negatively influenced the loan repayment of smallholder farmers.

Tolosa (2014) conducted a study on the Performance of Loan Repayment Determinants in Ethiopian Micro Finances and revealed that the age of respondents negatively and significantly determines the loan repayment performance of borrowers. This indicates that the elder respondents have better repayment performance than youngsters do (as argued by Fikirte (2011) and Mesele). Hence, education level and time laps between et al (2016 loan application and disbursement were positively and significantly influencing borrowers" loan repayment performance at 1% and 5% significance level. Whereas age of respondents, loan size, loan diversion, repayment period, number of dependents within and out household, training, and supervision and advisory visits had influence negatively and significantly the borrowers loan repayment performance at 1% significance level. The researcher employed binary logistic regression model to estimate and analyze the result.

Tesfaye (2014) conducted a study with the objective of identifying and analyzing the factors that influence group loan repayment performance of the beneficiaries of Dedebit Credit and Saving Institution (DECSI) operating in the manufacturing sector as group owned MSEs by using binary logit regression model to analyze the group related factors, lender related factors, and socio-economic related factor that influence group loan repayment. Accordingly, group composition, group initiation, peer pressure, suitability of repayment period, loan size and external shocks had statistically significant effect on loan repayment of the group borrowers.

Firafis (2015) conducted a study in Eastern Hararghe Zone of the Harari Regional State, Ethiopia to assess factors affecting loan repayment performance of Harari Microfinance Institution employing binary logit model. Accordingly, saving habit of borrowers, loan size, perception of borrowers on repayment period, source of income, availability of training, business experience, business type, family size, and the purpose of saving significantly influenced loan repayment performance. The econometric result revealed that the probability of default increases as the family size increases, when the borrower has negative perception on repayment period, less training, low business experience, poor saving habit and only single source of income.

Tesfatsion et al (2015) conducted study on the factors influencing MFIs Group loan repayment performance a case of MSE"s service delivering sector that are financed by Dedebit Credit and Saving Institution by applying explanatory (descriptive) research approach and employing chi-square test to examine the association of the independent variables with the loan repayment performance of clients. In this study eleven explanatory variables were included which results in group formation (screening), peer monitoring, loan size, loan term and supervision have significant association with loan repayment performance of borrowers while the rest six variables (business experience, social ties, internal rules and regulations, saving size, group size and training have insignificant association with loan repayment performance of group borrowers.

Mesele et al, (2016) conducted a study on the Factors Affecting Loan Repayment Performance of Small

Scale Enterprises Financed by Micro Finance Institutions on Private borrowers around Wolaita and Dawuro Zone .They were revealed that out of total of 15 explanatory variables considered in the econometric model six variables were found to be significant. These were age, education level, number of dependents within and out household, Tropical livestock unit, value of equipment, repayment suitability. The coefficients of these all-significant variables were negative and positive. They used a two-limit Tobit model to analysis the result.

Selam (2016) conducted study on the determinants of loan repayment performance of micro and small enterprises in Dire Dawa Administration and two limits Tobit regression model used to identify factors that affect loan repayment performance. The result indicated that sufficient loan size and repayment periods were related significantly and negatively to loan repayment performance of enterprises. Follow up or supervision, access to market, business experience, and trade and service sector types were important factors that affected loan repayment performance of the enterprises positively and significantly.

Balamurugan (2017) assessed the credit default risk in Oromia credit and saving share company (OCSSCO). His finding outcomes revealed that the OCSSCO default rate increased over the review period. The major causes of default were found to be poor business performance, in terms of low profitability or business losses. Besides, credit diversion to unprofitable uses, poor timing, and inadequate supervision to borrowers, inadequate loan size, and unfair screening mechanism and collected the primary data by using structured and unstructured questionnaires. The researcher employed Descriptive statistics and SPSS version 20 software to analysis the collected data.



RESEARCH METHODOLOGY Research Method and Methodology

Research methods or approaches were strategies of inquiry that provide specific direction for procedure in a research design. Creswell (2014) recommends that the combination of both qualitative and quantitative methods as it is the most valid and reliable way to develop understanding of complex situational reality. Hence, this study would apply Explanatory research design to collect quantitative data through structured questioners, which used to describe the characteristics of the actual phenomenon investigating determinants of loan repayment performances of MSEs financed by Addis micro finance in Bishoftu town. The target populations in this study were categorized in to two strata's such as; Non-defaulter and Defaulter with their respective MSE''s Sectors i.e.

Manufacturing, Construction, Agriculture, Service and Trade sectors a case of Addis Microfinance operating in Bishoftu branch. This study applied multi stage sampling design in order to select the enterprise leader respondents of MSE's sectors financed by Addis micro finance in the study area based on the borrower's loan repayment performance of those to keep the population proportion with respect to the enterprise members'' loan repayment status of MSE's Sectors. From the total active MSEs in the program during 2021G.C a representative sample will be selected from this population, first, the initial sample size should be determined by using the following binomial distribution formula:

$$n = \frac{\frac{p(1-p)}{(A)^2} + \frac{p(1-p)}{N}}{R}$$

Where: N: a number of the total population included in the study

- P = estimated variance in population, as a decimal: (0.5).
- A = Precision desired, expressed as a decimal (i.e., 0.05, for 5%)
- Z = 1.96 for 95% confidence level.
- R = Estimated Response rate, as a decimal i.e. 95 % (0.95).

$$n = \frac{\frac{0.2(1-0.2)}{(0.05)^2}}{\frac{(0.05)^2}{(1.96)^2} + \frac{0.2(1-0.2)}{240}}{0.95}$$

N=120

According to Watson''s, (2001) the proportional sample size (n) with respect to the total population was calculated as $n = 126 \times 120/240 = 63$, similarly, and a sample of 57 were selected to be respondents of the study from the two strata's with respect to sectors level respectively.

As a result, the determined proportionate sample size from the total population (240) is 52% representative of the total targeted populations in the study area. Hence a total of one hundred twenty (120) respondents that were believed to make appropriate analysis regarding the determinants of loan repayment performance of micro and small scale enterprise's sectors that are financed by Addis microfinance bishoftu branch were selected. Each stratum of MSE leaders is important to give equal chance for all respondents. To determined proportionate sample, the following formula were used:-

 $Ns = \frac{Nh}{Ns} * n$ Where: - nh: Sample size from each stratum, Nh:-Total population of the stratum, Ns:-Population of study from stratum, n:-Total number of sample for the study.

Table 3-1: Sample size	proportion for each sector of MSEs op	erators of Bishoftu Town

No.	Sectors of MSEs development	Non Defaulters		defaulters	
		Total sample		Total	sample
1	Agriculture sector	34	17	35	18
2	Service sector	20	12	25	13
3	Construction sector	18	9	14	7
4	Trade sector	34	15	28	13
5	Manufacturing sector	20	10	12	6
	Total	N=126	n=63	N=114	n=57

The study used qualitative and quantitative methods to report the findings. The quantitative analysis would help the researcher to generate descriptive statistics necessary to make deductions on characteristics of respondents, loan characteristics and firm characteristics. After a careful review of the collected data, the close ended questions was coded and entered into a computer using stata software application and analysis were carried out by Stata 14 software. Functions that were used for analysis in this study was frequency tables which incorporate the percentages to be used for descriptive statistics.

1.1 Model Specification

The MSE expected either defaulting or non-defaulting. Hence, the model assumed as dichotomous for dependent variables, which take 0 and 1. Yitbarek (2014)

Let yi= 1 if the borrower pay the loan amount full with the maturity period.

Yi= 0 if the borrower not pay the loan amount full with the maturity period

Therefore, $\frac{pi}{1-pi}$ is simply the odd ratio that the probability of the borrower repay loan and the borrower not repay loan within the maturity periods. The mathematical equation:

 $LRP = \beta 0 + \beta 1 (PCRF) + \beta 2 (BRF) + \beta 3 (IRF) + \beta 4 (LRF) + \beta 5 (EF) + \beta 6 (SF) + \varepsilon ------Equation 3$ Where:

- LRP: Loan repayment performance
- PCRF: Personal characteristics related factors
- BRF: Borrowers related factors
- IRF: Institutional related factors
- LRF: Loan related factors
- EF: External factors
- SF: Sectorial factors ϵ : The error term.

Result and analysis

In this section, based on summary statistics of respondent's the enterprise leaders demographic characteristics were presented with particular reference to gender, age, marital status, academic qualification, level of experience of manager, experience, sectors and status of the business were discussed in the table consecutively as follows.

Table 4-1 Loan repayment performance and gender of respondents

	status of your enterprise		Total	
Defaulter Non-defaulter				
0 1	Female	22	23	45(37.5%)
Gender	Male	35	40	75(62.5%)
Total		57	63	120

Source: own survey, 2022

As shown in the table 4.1 above, from 120 sample respondents; male are more dominant based on share of business ownership regarding 62.5 % and 37.5% were constituted by females. This indicates majority of clients in the study microfinance institutions are male dominate from the response of the questioner. This implies the participation of female clients in loan based business is less than male clients. Majority of male and females are non-defaulter which is 52.5% and 47.5% in total of male and females are defaulters.from this, 29.2% Male respondents " were relatively more defaulter than the female respondents" which is 18.3%.

Table 4-2 Loan Repayment performance and Age of the sampled respondents

		status of your enterprise	Total	
		Non-defaulter	Defaulter	
	20-30 years	38	50	88(73.3%)
Age of Respondents	31-40 years	23	6	29(24.1%)
	41-50 years	2	1	3(2.5%)
Total		63	57	120

Source: own survey, 2022

As presented in the table 4.2 above, among the sampled respondents of the enterprise leaders of the various Sectors; 73.3% of them belong to the age category of 20-30 years old and followed between 31-40 is 24.2% and above 41 years are 2.5% in the study area. Regarding loan repayment practice young age categories' have the highest percentage of being defaulter, defaulter which constitutes 87.7% and , this shows more of the young peoples are involved in MSE sectors than the adult and are the more to default.

		status of your enterprise		Total
		Defaulter	Non-defaulter	
Marital Status	Single	23	21	44(33.8%)
	Married	32	38	70(58.5%)
	Widow	2	4	6(5%)
Total		57	63	120

Source: own survey, 2022

As can be seen from table 4.3 more than 58.5% of client of the microfinance clients are married, as around 33.8% of the respondents of MSE are single. In addition to this out of 58.5% of married respondents 38(60%) are non-defaulters, and 40% of the respondents are defaulter clients of MFI's, in case of single respondents 40.3% are defaulters and from this married client of the microfinance are not defaulters, This result shows that married

microfinance borrowers are seriously paying their loan.

Logistic regression result and discussion

The binary logistic regression was used to identify the determinant factors and to estimate their potential effect of each explanatory variable on the loan repayment rate of borrowers. The explanatory variables include group-specific, lender-specific and socio-economic characteristics/factors. Primary data was collected from 120 MSEs sector Which were financed by ACSI.

Logit model result

	1	C 1 D	7	D	F050/ C 6	T / 17
Loan_Status	Coef.	Std. Err.	Z	P>z	[95% Conf.	Interval
		Personal cha	aracteristics of	respondents		
Gender	845779	.5356954	-1.45	0.146	-2.191719	.3001611
ACQ	.61855	.1811592	3.41	0.001*	.2634845	.9736155
		lenders or	MFI related fa	ctors		
TR	.4798221	.2239791	1.70	0.040***	0591687	.818813
SUP	.4130598	.2078933	1.99	0.047**	.0055964	.8205231
LRP	098441	.253753	0.04	0.037**	4875026	.5071908
SL	.1109636	.2266092	0.49	0.624	3331823	.5551095
EATL	4073693	.2230924	-1.83	0.068***	8446224	.0298837
		Group specific	and enterprise	s related fact	ors	
STIG	0.3269884	.2159868	-1.98	0.048**	8503148	003662
FG	4322627	.251352	-1.72	0.085***	9249036	.0603783
PM	.6299905	.2754041	-2.29	0.022**	-1.169773	0902084
SEC	.0822212	.234721	0.35	0.726	3778235	.542266
EGS	-0.5378304	.4616292	1.17	0.022**	3669462	1.442607
External related factors						
MA	.5425733	.2609029	2.08	0.027**	.031213	1.053934
ТА	.5004965	.2533302	1.98	0.035**	.0039784	.9970147
cons	1.782851	1.761639	1.01	0.312	-1.669899	5.235601
Source: State	11 out nut 2022		•			

Source: Stata 14 out put, 2022

*, **& *** indicates that the level of significance are at 1 percent, 5 percent and 10 percent respectively.

In this case the effects of the variables listed under the Personal characteristics of respondent's factors were interpreted based on the sign of each independent variable. As it is observed in the table 4.13 from personal related factors only ACQ (MSE's leader's academic qualification) significantly influence loan repayment performance. This variable was found to be positive and statistically significant effect on loan repayment performance at 1% significance level.

The education level was found to influence loan repayment positively and statistically significant at 1% significance level. Holding other variables constant an increase in a one year schooling of MSE leaders would increases the probability of the loan repayment rate by 0.62% in the study area. This is agreed with the expectation and with the finding result of Tesfaye (2018), Mohamed (2014); Fikirte (2011), Mesele et al, (2016); Tenishu (2014) and Ababiya et al (2015). However, this is not agreed with the result of Wafula (2016). training and loan supervision or high follow up positively influence the loan repayment performance of MSE sectors at 5% significance level. While the loan repayment period and ease of getting additional loan negatively influence loan repayment performance of MSE sectors at 5% and 10% significance level respectively. this result is in line with the prior expectation and with the result of Firafis (2015) and Tesfatsion et al (2015). But; this result is not agreed with the result of Tolosa (2014) and Abreham(2017).

Market accessibility and Technology advancement was also positively and statistically significant in determining loan repayment performance at 5% significance level. This result is similar with the prior expectation and with the result of Ababiya et al (2015).

Summery, and conclusion of the findings

The statistic and the model results show that the academic qualification of respondents significantly determines the loan repayment performance of borrowers.

- The education level attained by the enterprise leaders was statistically significant and had appositive relationship with loan repayment. In this study the leaders with more education was more likely to be successful in paying their loan .That is the enterprise leaders with higher education level has greater chances of succeeding than those with less level of education.
- + Training: Training accessibility was found to determine loan repayment positively and statistically

significant. Access to training for enterprises refers to the facilitation of different training's which assists the operators of the enterprises to perform in a suitable way. Capacity building training's would better prepare enterprises to perform in the business they engaged. Therefore, enterprises which have sufficient access of training repaid their loan than those which had less training.

Recommendations

Based on the finding obtained from descriptive and model analysis of the study the following recommendations were derived.

- ✓ Male borrowers are defaulter than female borrowers; therefore, microfinance institutions should provide training's to the borrowers before they deliver the loan, because this is likely to enable them to have some level of managing ability in their business. It is better to monitor these borrowers regularly to ensure that they use the loans they received for the agreed and intended purpose.
- ✓ Clients recruited in the credit program should have adequate business experience to run a viable business.
- ✓ Group formation by members for the credit program is better formed without the initiation of credit officers. This does not mean that the credit officers have to be totally excluded in the initiation of the group formation; even if the credit officers take part in the initiation to some extent, they should restrain themselves from enforcement to form the group.

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