THE INTERNAL CONTROL APPLIED IN THE GRANTING OF CREDITS AND RECOVERY OF OVERDUE PORTFOLIO OF THE COACS OF ECUADOR AND ITS ECONOMIC IMPACT

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SUMMARY
The investigation allowed to determine guidelines to carry out a technical control in the granting of credits and recovery of the past due portfolio of the Savings and Credit Cooperatives, and thus to perform an adequate management in the concession of credits and recovery of past-due loans. The research design was executed with the qualitative and quantitative modality, inductive and deductive method, interviews, surveys, field research and direct observation.
With the results obtained it is considered necessary to apply correctly the methods proposed to access a credit, an efficient process for the granting of credit, and to reduce the past due portfolio it is necessary to follow up and a good analysis in its verification of credits granted as well Support to meet the needs of the partners and improve their economic stability of the Institution.
The investigative work established that the participation of the credit and collection department of the Cooperatives and the entire work team are fundamental elements in the implementation of a system of technically designed and evaluated procedures, suggesting that control should be exercised in the placement process and Recovery of loans and stability of financial operations in order to fulfill its institutional mission of providing productive opportunities to its partners, contributing to achieve corporate social responsibility.

Keywords: Technical Control System, Credit granting, Recovery of past due portfolio

1. INTRODUCTION

This study analyzes the implementation of a technical control system in order to grant favorable loans to members and reduce the overdue portfolio of the Savings and Credit Cooperative, this is an important measure because it is related to the security of depositors and the decision-making of the directors of the Institution.

For which it is necessary to have a clear understanding of the objectives to be achieved and the reliability of the information together with compliance with the laws and regulations that must be applied, a technical control system is proposed to reduce the overdue portfolio through a system of granting and recovery of credits with the aim of controlling and reducing delinquency rates.
The results allow to know and evaluate the granting of loans, as well as the recovery of non-performing portfolios, allowing decisions on financial solvency to be analyzed under risk identification criteria and guaranteeing the quality in obtaining the results.
The research determines that the structure of the system will allow to know an adequate process of concession and recovery of the portfolio contributing with a tool which will facilitate them to make the best financial decisions, as well as to satisfy the needs of partners or customers.

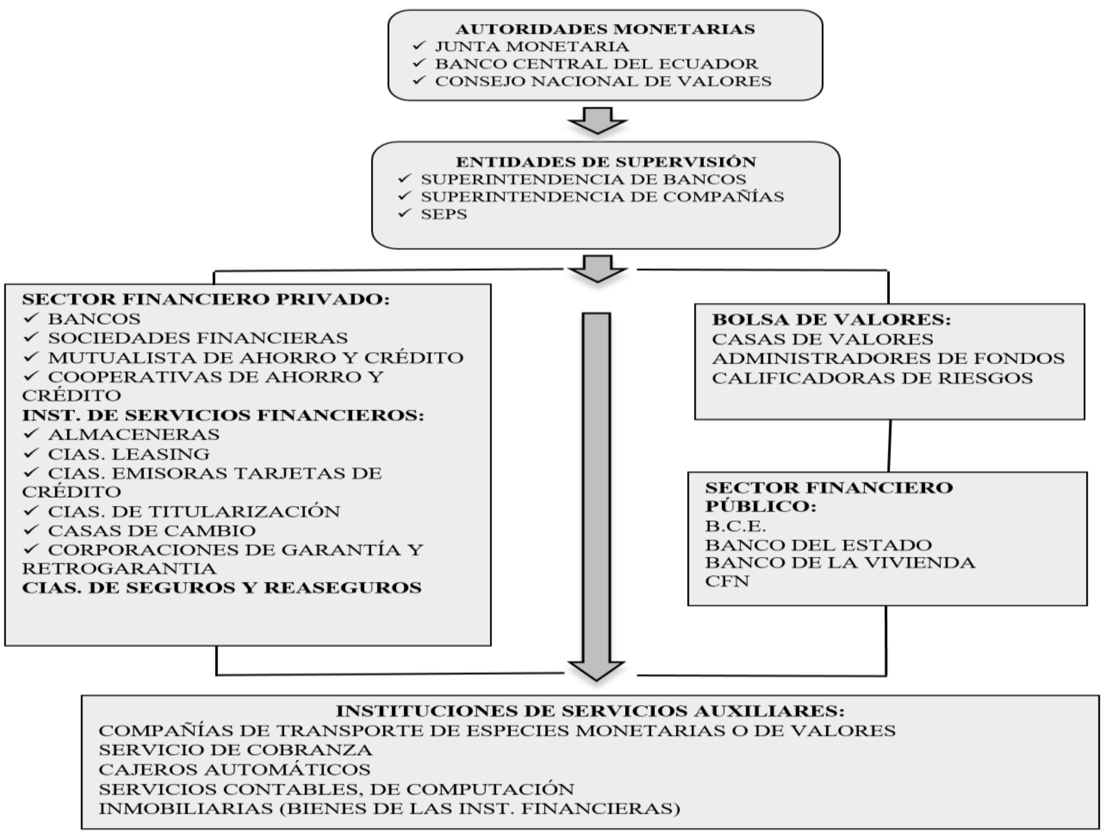
2. DEVELOPMENT

Ecuadorian Financial System

The Ecuadorian Financial System plays a fundamental role in the economic structure of the country, since it channels the resources of the surplus units of the economy towards those that are in deficit. All the intervening institutions operate on financial assets and liabilities, facilitating and promoting credit and investment. (Superintendencia De Bancos, 2009)

General scheme of the Ecuadorian Financial System.

Figure 1: Outline of the Ecuadorian Financial System



Source: Superintendency of Banks
Prepared by: The Authors

Interest Rates

The information presented is contained in two files:

1. **Weighted Average Nominal Rate (NPR) by Entity:**
It includes information by line of business (commercial, consumer, housing and microcredit), by terms (from 1 to 30 days, from 31 to 90 days, from 91 to 180 days, from 181 to 360 days and from more than 360 days) and, additionally, a consolidated total is presented.

2. **Weighted Average Nominal Rate (NPR) consolidated by systems vs. Maximum Convention:** Consolidated comparisons by line of business and by terms.
Metodología
It is recommended to read the methodology applied for the calculation of the Weighted Average Nominal Active Rate for a better understanding.
Basic Definitions

1. **Interest rate:** Price paid for the use of money during a certain period. It is the percentage of return or cost, with respect to the capital committed by a debt instrument.
2. **Active interest rate:** It is the percentage that banking institutions, in accordance with market conditions and the provisions of the Central Bank, charge for the different types of credit services (commercial, consumer, housing and microcredit). They are active because they are resources in favor of banking.
3. **Active rate of nominal interest: It is the basic rate that is** named or declared in the operation; that is, interest rate that is caused on the nominal value of a financial transaction. Nominal value means the value (dollar amount) printed or written on the receivables.
4. **Weighted average nominal lending rate:** Rate intended to give an idea of the scale of rates applied by the entity. (Superintendency of Banks, 2009).

Analysis and Design

It is the work that involves clearly determining the problem you want to solve, as well as the solution that satisfies the original approach, you know that a system is a tool of use in an institution layers to help solve problems. (Mantilla & Hernandez, 1994, p. 76)

System

Simply put, a system is a matrix of components that collaborate to achieve a common goal, or several, by accepting inputs, processing them, and producing outputs in an organized manner. (Martinez Sarmiento, 2009, p. 9)

Systems and Subsystems

Not all systems have a single goal. Often, a system is made up of several component subsystems of a larger one with secondary goals, all of which contribute to achieving the parent goal. Subsystems can receive inputs and transfer outputs and from other systems or subsystems.

Think of the different departments of a manufacturing company, each department is a subsystem with its own goal, which is a secondary goal of a larger system, whose goal, in turn, is to make the maximum profit. (Martinez Sarmiento, 2009, p. 9)

Customer relationship management systems

Customer relationship management (CRM) systems help manage an organization's relationships with its customers. The term covers a wide variety of information systems. From the simple ones that help preserve customer records to the sophisticated ones that dynamically analyze and detect all the schemas (Martinez Sarmiento, 2009, p. 19)

The company as a system

Systems are a set of elements closely related to a purpose, structured by subsystems and delimited by the environment or microsystems in which they act. (Hernandez & Pulido Martinez, 2011, p. 8)

The systems work with inputs, processes, outputs and feedback. Companies are systems insofar as:

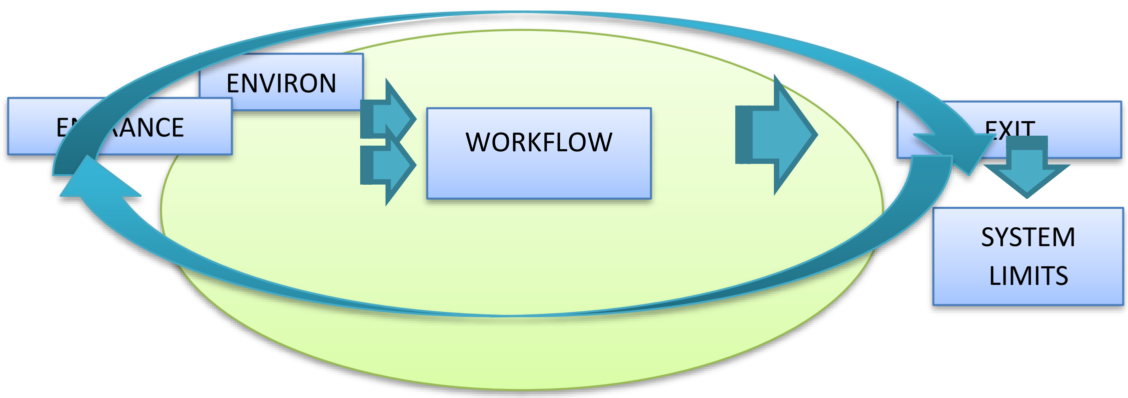
1. Systems are both the raw materials and the economic, human, knowledge and technological resources that supply it.
2. They have processes through which inputs are transformed into products or services.
3. The products or services are satisfiers that the company makes to feed itself with inputs that it acquires when marketing and with information on the degree of satisfaction of the users.

General Systems Theory (TGS)

Systems theory revolutionized approaches to management and administration. The origin of this approach goes back to Aristotelian conceptions of causes that every whole is part of a greater one. General system theory is important because it revolutionized scientific thinking.

Kenneth Boulding indicates that systems pass the biologically evolved stages over classification. (Hernandez & Pulido Martinez, 2011, p. 58)

Figure 2: Outline of the general theory of systems



Source: Fundamentals of Business Management

Prepared by: The Authors

Classification of systems

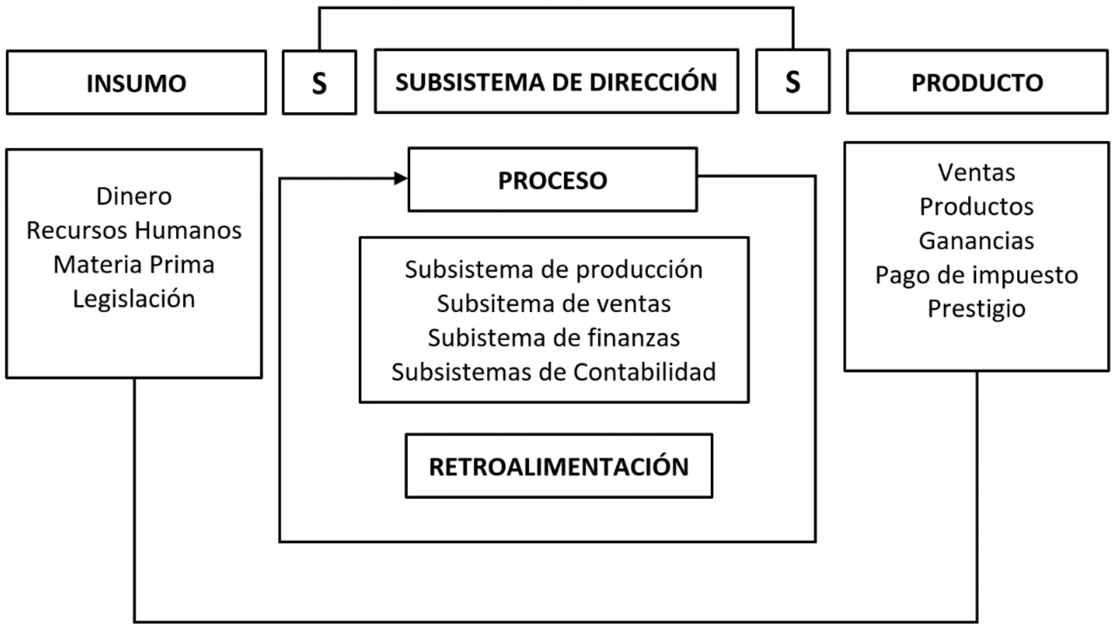
- ✓ By the degree of interaction with other open and closed systems.
- ✓ For its material and objective composition: abstract and concrete.
- ✓ For its responsiveness: liabilities, assets and reactive.
- ✓ For its internal mobility: static, dynamic, homeostatic and probabilistic.
- ✓ By the predetermination of its operation: deterministic and dependent.
- ✓ By their degree of dependence: independent and interdependent.

Depending on the level of influences they receive, they are called open and closed. (Hernandez & Pulido Martinez, 2011, p. 59)

Elements of systems

In every system we find, at least, four elements for its existence and content among them are: (Martinez Sarmiento, 2009, p. 60)

Figure 3: Systematic Elements



Source: Information Systems Administration
Prepared by: The Authors

Definition of the elements of the systems in the company

Inputs: supply the system with what is necessary to fulfill its mission; for example: capital, people, raw materials.

Process: it is the transformation of inputs, according to certain own methods, with systems that are subsystems: example: production, sales, finance and accounting, etc.

Product: it is the result of the process and in turn, it is an input of other systems (companies, customers, etc.)

Feedback: administratively, feedback or re-information means receiving the evaluation or acceptance of products or services by the environment to correct processes, in practice, it is the analysis of the results and relationship with the acceptance of the user, client or consumer regarding what the company produces. Various feedbacks are used, such as external audits, surveys, complaint analysis, etc.

Every system is part of a larger one called macrosystem, suprasystem which is a subsystem of a higher one. (Hernandez & Pulido Martinez, 2011, p. 61)

Control

Control is mentioned as an element of coordination, because some of its facets are especially applicable to coordination. In order to help coordination, control has to be sensitive, it has to be properly targeted and it has to establish coordination inspection. (Regional Technical Aid Center & Agency for International Development (A.I.D), 1973, p. 280)

Evaluation

Evaluation is considered as a "social process of making value judgments" and that it -".can be studied with the tools and techniques provided by scientific methodology".

Swanson expands, noting that "this process is basically a value judgment, an appreciation of value, which is highly complex and subjective and involves a combination of basic postulates referring to the object evaluated and those who carry out the process." (Swanson & Suchman, 1975, p. 95)

Risk

In the business world, risk is the variability associated with a stream of profits expected by an investor. Risk implies that the expected benefit does not have to coincide with the realized benefit (both will coincide if there is no risk). Business risk can be broken down into many types of risk, here we are going to address three very important types: economic risk and financial risk. (Felix, September 2001, p. 48)

Credit risks

"In every success story, you find a person who makes a courageous decision. It is important to consider that we will never have all the information we would like to make an investment decision, which means that these decisions will always have an implicit risk" (Drucker, 2006, p. 23)

Credit risk. "It is the possibility of loss due to the default of the borrower or the counterparty in direct, indirect or derivative operations that entails the non-payment, partial payment or lack of opportunity in the payment of the agreed obligations." (Campoverde M. F., 2000, p. 86)

Risk Ranges

It is the possibility of incurring loss or damage as a result of a commercial transaction. To overcome, at least partially, this possibility of loss, the risk premium has been created, which constitutes a surcharge on the financial cost of a loan aimed at covering possible delays and defaults.

Specifically, credit risk is the ability or security to pay at maturity of the obligation. The certainty of receiving the funds on the date of payment.

In the granting of credits, the inherent risks are:

- ✓ Loss of partner
- ✓ Total loss of credit
- ✓ Partial loss of the appropriate amount
- ✓ Transaction losses while closed on credit
- ✓ Loss of interest and financial cost
- ✓ Management, collection and administrative costs

Credit.

Credit is the trust given or received in exchange for a value. The credit places an obligation to be paid by the buyer and gives the right to payment to the seller. The word credit means a credit transaction, established credit or a credit instrument. Credit is used as a medium of exchange and as an agent of production. It gives flexibility to supply and demand makes capital more productive, accelerates production and distribution, increases the volume of business, facilitates the transfer of money and serves to raise the level of business management.

The amount of credit in use depends on the probability of its liquidation when it matures, and the need for a medium of exchange. A seller must have such moral confidence in the buyer's ability and willingness to pay; You should also guard against false confidence. The need for a medium of exchange varies with the state of business. (Ettinger & Golieb, 1994, p. 35)

Credit is Limited

Credit is not money, but it is almost money. Money is a virtually universally accepted medium of exchange, at least in the country of origin, but credit is a medium of exchange of limited acceptance. It is not available to everyone. Moreover, those who have it cannot use it everywhere. They can use it freely in some places for the amount they can have, and these limits may be larger in some places than in others. (Seder J., 1983, p. 12)

Types of Credits

There are many types of credits, the most traditional in the financial system being commercial loans, to microentrepreneurs, consumer and mortgage loans.

Trade credits.

They are those direct or indirect granted to natural or legal persons destined to the financing of the production and commercialization of goods and services in their different phases.

Also considered within this definition are credits granted to individuals through credit cards, financial leasing operations or other forms of financing.

Credit to microenterprises

They are those direct or indirect granted to natural persons or legal entities destined to the financing of activities of production, commercialization or provision of services.

Consumer loans

They are those that are granted to natural persons in order to meet the payment of goods, services or expenses related to a business activity.

Also considered within this definition are credits granted to natural persons through credit cards, financial leases and any other type of financial operation.

Mortgage loans for housing

They are the lines of credit destined to natural persons for the acquisition, construction, repair, remodeling, expansion, improvement and subdivision of own housing, such credits are granted covered by mortgages duly registered in the public records.

Cost of credit

From the financial point of view, granting credits implies incurring costs, which can be quantified depending on the origin of the funds that are required to use them in the accounts receivable from the partners.

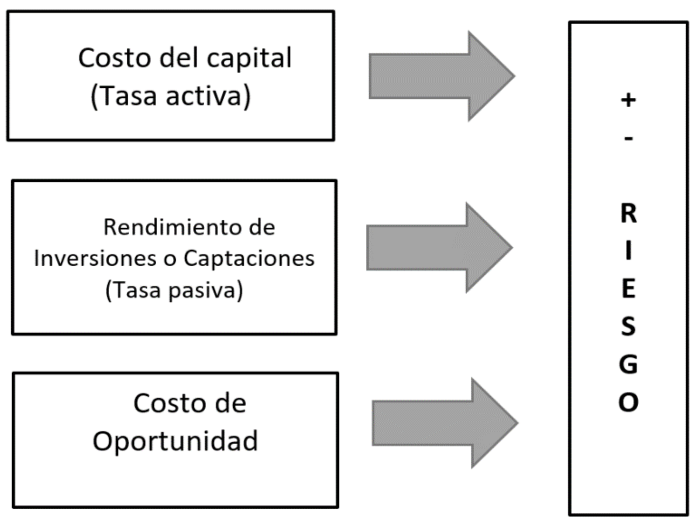


Figure 4: Credit Costs

Source: Credit Methodology

Prepared by: The Authors

The problem in practice arises when the operations department receives a request from a partner for the granting of a loan at different terms. It is also valid when the proposal is for a loan to be paid at the end of a term. So the question is: How much to charge or discount in the face of variations in payment terms?

The answer is given by the combination between the cost or return of the funds that I am going to allocate to this loan, plus the differential risk that I am going to acquire. This is without considering the cost of credit as a facilitating element or as a comparative advantage in the relationship with partners. (Superintendency of Banks, 2009, pp. 5-6)

Non-performing loans

"The portion of the total portfolio of a financial institution whose term has expired without the creditor having received the corresponding payment, to the financial asset by the debtor or guarantor until the assets are punished by reason of the creditor's non-payment, interest will continue to accrue for late payment on overdue liabilities." (Fernández, Análisis Económica, 2000, p. 28),

(Ximena Alarcón, 2002), Overdue portfolio These are those credits in favor of financial institutions that, due and unpaid, must be transferred from current portfolio to overdue portfolio within a period not exceeding 90 days from their maturity date. In the case of credits payable in installments, the amounts of unpaid installments are considered to be in overdue portfolio, within 90 days following the respective maturity dates, except in the case in which the power to make the entire credit payable is exercised, for the non-payment of a certain number of installments, case in which the total amount of the operation must be taken to overdue portfolio.

Delinquent Portfolio

Delay in the fulfillment of an obligation and therefore the debtor who is late in his payment obligation is considered delinquent.

Delinquency Index

They measure the percentage of the unproductive portfolio against the total portfolio. NPL ratios are calculated for the total gross portfolio. One of the main risks faced by the banking industry is credit risk, that is, the risk that its debtors will lose the ability to pay (totally or partially) of the obligations committed. The losses caused by the materialization of this risk have negative effects on the profitability and the level of capital adequacy of each banking institution.

IMOR= PAST DUE PORTFOLIO/ TOTAL PORTFOLIO

The financial institution at national level must continuously monitor the credit portfolio with the results of which it will establish the level of provisions that are necessary to cover the risk of non-collection of the credit. It is therefore that cooperatives give priority to this risk because it is the main source of income and in turn of potential losses for the institution, this implies that the good administration of the same will avoid endless catastrophes at the institutional level and at the level of the financial system which prevents causing a financial crisis. (KINGS, 2012)

Credit risk categories and rating coverage

A: that person who has enough income to pay the principal and interest and does so on time. If it is a commercial credit, the payment of the fee can not exceed 30 days and if it is consumption, no more than five days.

B: customers who still demonstrate that they can meet their obligations but do not do so in a timely manner. In commercial credits are those that take up to three months to pay their obligations.

C: people with deficient income to cover the payment of the capital and its interests under the agreed conditions.

D: same as people who have a C rating, but where legal action has to be taken for collection and generally renegotiate the loan under other conditions.

E: is the last rating. Here are the people who declare themselves insolvent or bankrupt and have no means to cancel their debt. In commercial loans, delinquency is greater than nine months and in consumer loans, above 120 days.

Table No. 1 below shows each of the risk categories with the rating coverage:

Table 1: Rating Category and Credit Risk Term

Risks	Categories	DAYS OF DELINQUENCY		
		Commercial	Consumption	Microcredit

Normal Risk	A-1 A-2 A-3	0 1-15 16-30	0 01-08 09-15	0 01-08 09-15
Potential Risk	B-1 B-2	31-60 61-90	16-30 31-45	16-30 31-45
Poor Risk	C-1 C-2	91-120 121-180	46-70 71-90	46-70 71-90
Risk of Doubtful Collection	D	181-360	91-120	91-120
Lost	And	360	120	120

Prepared by: The Authors

Source: General Law on Financial Institutions

Recovery of Non-Performing Loans

One of the talents of a good collection manager is to know how to listen carefully to their customers, since by listening and not simply listening we can obtain the solution of the account. In addition, it is necessary to keep in mind at all times the change in attitudes to the problems and challenges of collection. (Espino González, 2014)

"It is essential to change the attitude of being a collector to become negotiators"

The first step to achieve collection is the fact that our client recognizes the debt, although this should seem easy, if the delinquency has become excessive, it may be that the client refuses to recognize that he owes us, with this, the collection can be extremely difficult, it will be necessary to be able to demonstrate with absolute certainty the origin and amount of the debt.

- ✓ **Acceptance:** Once the above has been achieved, as Effective Managers we must achieve the acceptance of the account by our client. If the account is extremely delinquent, it may be that the client tells us that he will never settle it, so it is very important to get the client to indicate that he is willing to pay.
- ✓ **Amount:** Very important is the fact of having a correct and well-documented balance, because if we present the client with a wrong balance, we are giving him the opportunity to immediately finish with our collection efforts.

- ✓ **Time: Once the above is achieved, we must clearly determine the date of payment of the account, it** is very common for the client to comply with all of the above, but does not specify payment dates, since he considers that with this attitude he can delay the payment without committing to it. Let us clearly specify an upcoming date for payment.

- ✓ **Execution and follow-up: Since we achieve the above, it would be** convenient to get a payment suggestion from the client, let's not treat this document as an agreement, or payment commitment, since the client could refuse to provide it, because he would argue that if at the beginning this document was not required, at this time he would not be in a position to sign it.

- ✓ **Delinquent clients: It is important to convert this collection process into a Negotiation,** for which it is important to have a broad knowledge of all aspects of the collection that we want to carry out with these clients, it is necessary to be prepared to be able to objectively answer the objections that our client presents to us in the course of the Negotiation.

Attitudes to objections

- ✓ Accept objections in the best way
- ✓ Support the logic of objections

- ✓ Never shirk the objection
- ✓ Isolate and separate each objection
- ✓ Understand the meaning before answering them
- ✓ Don't be afraid to say you don't know and that you will solve it later
- ✓ Be concrete and concise when answering
- ✓ Never express fear
- ✓ Be honest
- ✓ Never lose patience

It is necessary that we understand that success in collection depends on our attitudes, understanding and knowledge we have of our client.

Credit risk analysis model

Different authors establish different models for the analysis of credit risk, below is the traditional model that in the vast majority of bibliographies establishes it.

Traditional Model the Five Cs of Credit

The best-known traditional model is the five Cs of credit (character, capital, capacity, collateral and conditions), also called the expert model, in which the decision is left to a credit analysis that analyzes five key factors.

Implicitly, the experience of that person, his subjective judgment and the evaluation of these factors constitute the determining elements when granting or not granting credit.

Implicitly, the experience of that person, his subjective judgment and the evaluation of these factors constitute the determining elements when granting or not granting credit. (Verito Paola, 2010, pp. 18,19,20)

The elements analyzed by this system are the following:

"C" Character

They are the qualities of honorability and moral solvency that the debtor has to respond to our credit.

When we do a credit analysis, what we are looking for is somehow to be able to predict the future payment behavior of a client, so we must use information about their payment habits and behavior, such information will have to refer to the past (How it has behaved in past credit operations) and the present (How it is currently behaving in relation to its payments) this will mark a trend and therefore a probability of maintaining a similar behavior for future events.

“C” Capital

It refers to the values invested in the business, as well as its commitments, that is, the study of its finances, for its evaluation requires the analysis of its financial situation.

The detailed financial analysis will allow us to fully know your payment possibilities, your flow of income and expenses, as well as the capacity of indebtedness, to carry out an analysis of this nature, it is necessary to know some basic elements with which your accountant can advise you with formulas of practical application so that through a balance, You can measure liquidity flow, inventory turnover, average time it takes to pay, etc.

Of course, not in all cases we will be able to obtain financial information, so it is convenient to consider alternative means to evaluate the income flow of our potential client, when requesting for example information from a recent bank statement.

"C" Ability to Pay

It is the skill and experience in business that the person or company has of its administration and practical results. For its evaluation, the seniority, growth of the company, its distribution channels, activities, operations, area of influence, number of employees, branches, etc. are taken into account.

New businesses offer a difficult problem for the Credit department, as thousands of establishments each year fail in a large percentage, due to the lack of skill and experience to conduct a successful business.

"C" Conditions

They are the external factors that can affect the progress of a business, that is, those that do not depend on their work.

Business in general and economic conditions, over which individuals have no control, can alter the fulfillment of payment, as well as their desire to fulfill their obligations.

"C" Collateral

They are all those elements available to the business or its owners, to guarantee the fulfillment of payment in the credit, that is, the guarantees or collateral supports; which are evaluated through their fixed assets, the economic value and quality of these.

One of the foundations of credit analysis states that credit should not be granted that does not have a second source of payment, unless the profit margin is very high, which would allow a greater risk.

"C" Constancy

In several investigations of different authors establish the constancy as the fifth "c", although of it is of great relevance its definition is indicated below.

Part of the analysis is to measure the risk through knowing, in the case of a natural person especially, the time spent in their jobs and at home. This knowledge will indicate the constancy of a client, if he is able to maintain stability both in employment or in housing.

A person with many continuous job changes, may show personality problems that make it impossible to honor their debts due to lack of employment in the short term.

Collection

"Collection is a comprehensive negotiation process through which customer service is provided, by advising him and responding to his information needs and, above all, credit, through which the investment made in a credit is recovered, based on the right to receive payment by the creditor and the obligation to pay by the debtor." (Verito Paola, 2010, p. 24)

Customer

(Harringtom, 1998, p. 18) , defines customers as:

- ✓ The most important people for any business.
- ✓ They are not an interruption in our work, they are a foundation.
- ✓ They are people who come to us with their needs and desires and our job is to satisfy them.
- ✓ They deserve to be treated as thoughtfully and courteously as we can.
- ✓ They represent the vital fluid for this business or any other, without them we would be forced to close.
- ✓ Customers of service companies feel let down and discouraged, not because of their prices, but because of the apathy, indifference and lack of attention of their employees.

Client Portfolio

A customer base comprises several groups that are part of a company's customer base.

Customers are the vital and driving element of organizations, since the final product or service is directed towards them; Therefore, from small and medium-sized companies to the most important corporations, the effective treatment of the public has been and is one of the main tools for attracting and maintaining its clientele. (Hunter, 2015)

3. ANALYSIS

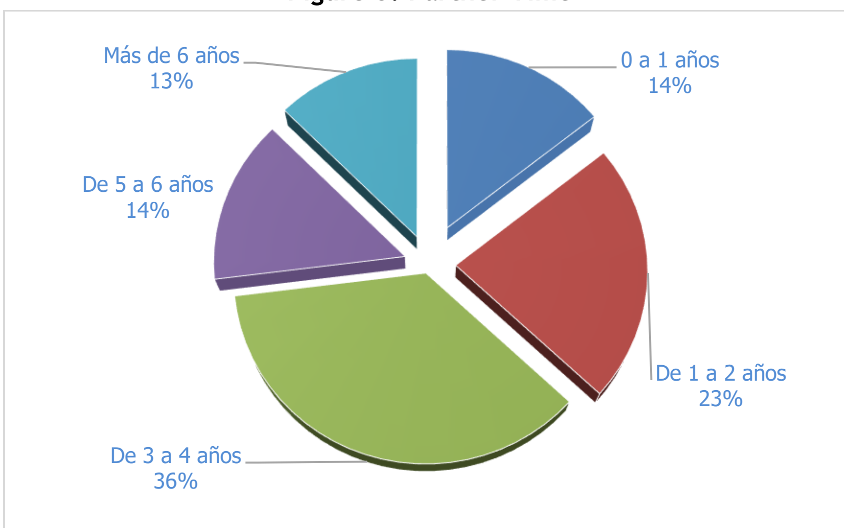
For the calculation of the sample, the number of cooperatives that are located in the central zone of the country was taken, the reliability of 90% was considered, with the probability of success at 50% and that of failure in the same percentage, this results in a sample of 382 surveys for the collection of corresponding data for the validation of the research.

How long are you a Partner of a COAC?

Table 2: Membership Time

0 to 1 years	55	14.4%
From 1 to 2 years	86	22.5%
From 3 to 4 years	138	36.1%
From 5 to 6 years old	55	14.4%
More than 6 years	48	12.6%
	382	100%

Figure 5: Partner Time



Source: Table 2
Prepared by: The Authors

Analysis and Interpretation

According to the survey we have as a result on the time you are a member From 0 to 1 year correspond to a total of 14.4%, from 1 to 2 years correspond to 22.5%, from 3 to 4 years correspond to 36.1%, from 5 to 6 years correspond to 14.4% and finally more than 6 years corresponds to 12.6%.

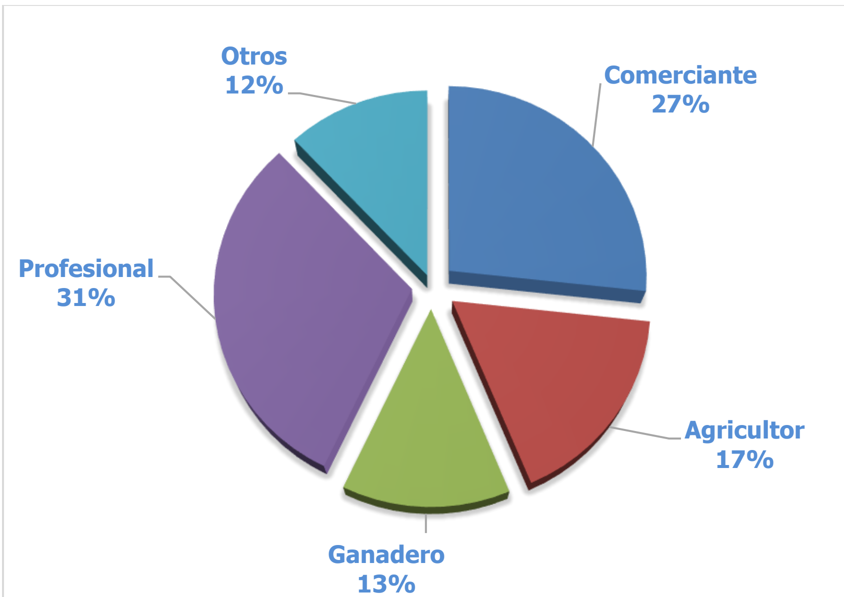
When performing the analysis it can be seen that 36.1% belongs to members who have been part of a Savings and Credit Union for 3 to 4 years.

What is the economic activity to which you are dedicated?

Table 3: Economic Activity

Merchant	102	26.7%
Farmer	65	17.0%
Cattleman	51	13.4%
Professional	118	30.9%
Other	46	12.0%
	382	100%

Figure 6: Economic activity



Source: Table 3
Prepared by: The Authors

Analysis and Interpretation

According to the total of the respondents, the economic activity to which they are engaged stated that 26.7% of the partners are traders, 17% are farmers, 13.4% are ranchers, 30.9% are professionals and 12% belong to other professions.

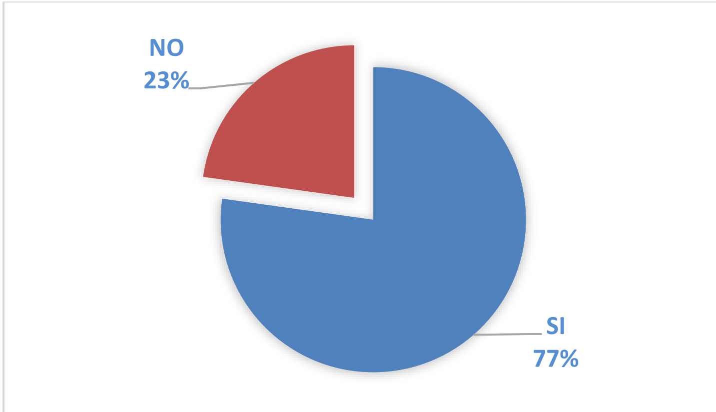
When carrying out the analysis, it can be concluded that the economic activity to which most of the partners are dedicated is to the professional activity.

Have you made any credits?

Table 4: Making some credit

Yes	295	77.2%
No	87	22.8%
	382	100%

Figure 7: Realisation of some credit



Source: Table 4
Prepared by: The Authors

Analysis and Interpretation

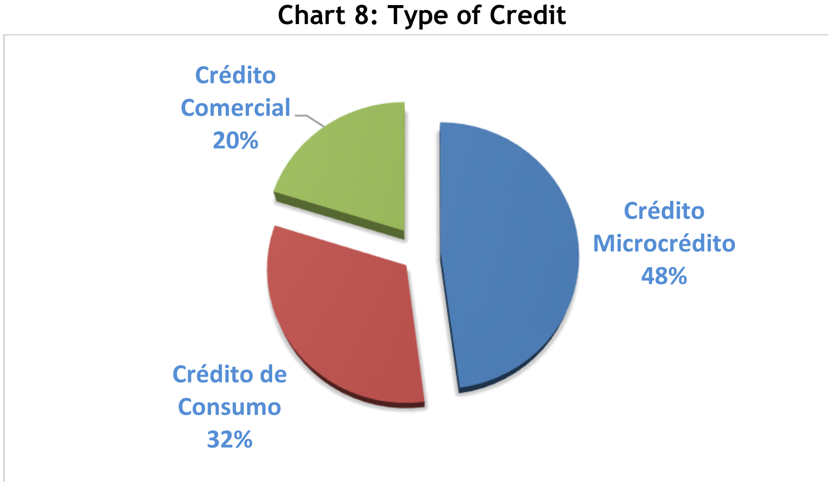
According to the total sample of 382 respondents, 77.2% if they made some type of credit and 22.8% have not made any credit only invest their savings. When performing the analysis it can be said that most of the partners surveyed do make credits.

What type of Credit did you get?

Table 5: Type of Credit

Microcredit Credit	183	47.9%
Consumer Credit	122	31.9%
Trade Credit	77	20.2%
	382	100%

Chart 8: Type of Credit



Source: Table 5
Prepared by: Autoría Propia

Analysis and Interpretation

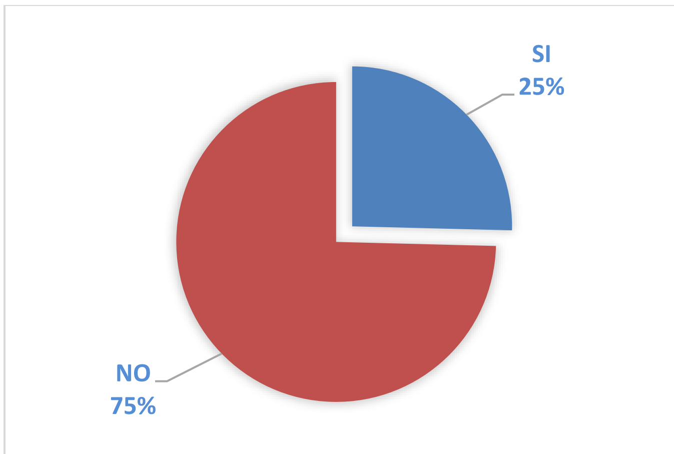
According to the total sample of 382 respondents who have made some type of credit, 47.9% made Microcredit credit, 31.9% made consumer credit and 20.2% have made commercial credit. When performing the analysis, it can be said that most of the partners surveyed make Microcredit type Credits.

Do you know the percentage of interest you pay monthly for your credit?

Table 6: Monthly payment percentage

Yes	97	25.4%
No	285	74.6%
	382	100%

Figure 9: Monthly payment percentage



Source: Table 6
Prepared by: The Authors

Analysis and Interpretation

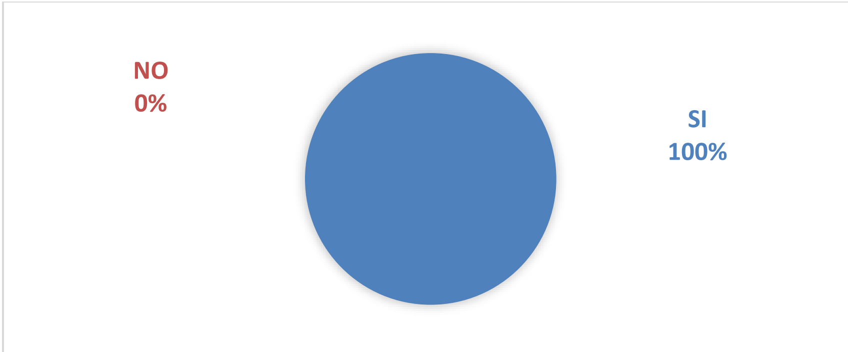
According to the survey of the 382 partners who have made some type of credit, 74.6% do not know the percentage of interest they pay monthly for their credit while 25.4% do know the interest they pay monthly for their credit. When performing the analysis it can be said that most of the partners surveyed do not know the percentage of interest they pay monthly for their credit.

Does the Credit Union timely remind you of the expiration of your monthly credit installments?

Table 7: Timely reminder of expiration

Yes	382	100.0%
No	0	0.0%
	382	100%

Figure 10: Timely recall of maturity



Source: Table 7
Prepared by: The Authors

Analysis and Interpretation

According to the survey addressed to 382 members who have made some type of credit, 100% of respondents mention that the Cooperative does remind them in a timely manner of the expiration of their monthly credit installments.

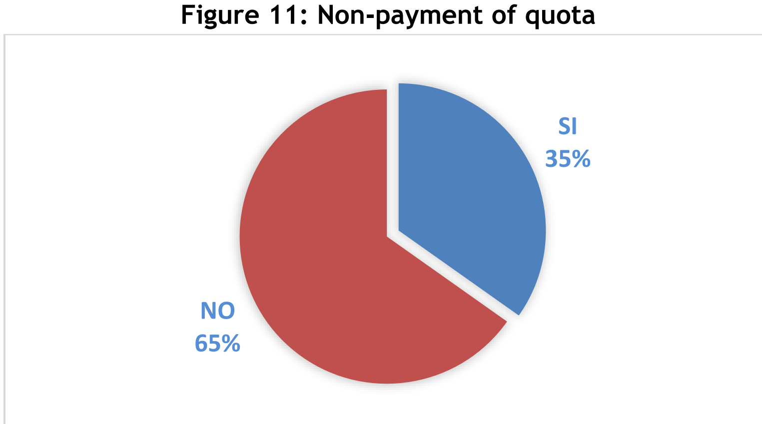
When performing the analysis, it can be said that all surveyed partners are informed of the expiration of their monthly credit installment in time for its maturity.

Have you ever defaulted on your credit installment?

Table 8: Failure to pay fee

Yes	133	34.8%
No	249	65.2%
	382	100%

Figure 11: Non-payment of quota



Source: Table 8
Prepared by: The Authors
Analysis and Interpretation
According to the survey applied to 382 partners who have made some type of credit, 34.8% of respondents mention that they have defaulted on the payment of the fee while the other 65.2% have not defaulted on the payment of their credit fee.

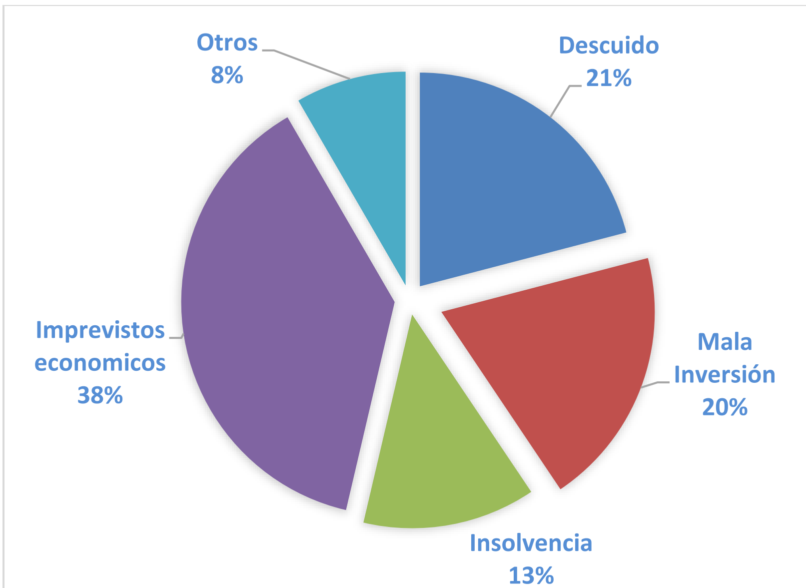
When performing the analysis it can be said that if there is a part of the partners who have failed to pay their monthly installment of their credit.

What is the reason for non-payment of your credit installment?

Table 9: Reason for Non-Compliance

Carelessness	80	20.9%
Bad investment	75	19.6%
Insolvency	50	13.1%
Economic contingencies	145	38.0%
Other	32	8.4%
	382	100%

Figure 12: Ground for Non-Compliance



Source: Table 9

Prepared by: Autoría Propia

Analysis and Interpretation

According to the survey addressed to 382 partners who have made some type of credit, 20.9% of respondents mention that the reason for their breach of their quota is due to carelessness, 19.6% for bad investment, 13.1% for insolvency, 38% for economic contingencies and 8.4% have made other types of default in the payment of the installment of their credit . When conducting the research it can be said that all surveyed partners are informed of the expiration of their monthly credit installment in time for its maturity.

4. RESULTS

SWOT Diagnosis of the Credit and Collections Area

Table 10: SWOT Matrix Credit and Collection Area

EXTERNAL ANALYSIS	
OPPORTUNITIES	**THREATS**
Crisis of the financial system. Incursion into NGOs. Population growth	Lack of savings capacity. Offers of scarce commissions. Political situation of the country can affect the economy.
INTERNAL ANALYSIS	
STRENGTHS	**WEAKNESSES**
Efficient and transparent management Computer system with growth capacity for partners. Financial costs accessible to large financing.	Lack of training for employees and partners. Low coverage in the credit portfolio. Little financial analysis and granting of credit.

Prepared by: The Authors

SWOT Diagnosis of the Financial Department

Table 11: SWOT Matrix Financial Department

EXTERNAL ANALYSIS	
OPPORTUNITIES	**THREATS**
It performs a financial analysis every month to evaluate the economic situation of the cooperative. Income and expense budgets are managed to safeguard liquidity. Wide target market. Growth of the microfinance segment.	Poor management capacity. Lack of automated services. State regulations on interest rates and commissions. Changes in the regulation of the Financial System.
INTERNAL ANALYSIS	
STRENGTHS	**WEAKNESSES**
Ability to cover credit obligations. Delegation of activities in the management of credits and collection. High level of customers and partners. Strategic alliances that allow you to improve services to customers.	Little financial analysis and granting of credits. Difficulty in planning credit clearances.

Prepared by: The Authors

Table 12: Credit Matrix

ACTIVITY	RISK FACTOR	RISK RESPONSE	PERSON IN CHARGE
CREDIT APPLICATION			
Requirement of information according to type of credit	The official does not provide sufficient information.	Avoid	Business Executive
Verification if the client is suitable to access a credit	Inadequate verification system.	Reduce	Business Executive
	Credit Bureau rating drops to 600 points.	Accept	
Receipt of documents from the Client	The partner does not meet all requirements.	Reduce	Business Executive
	Absence of staff for the reception.	Reduce	
	Incorrect document management.	Avoid	
ANALYSIS OF THE CREDIT APPLICATION			
Verification of information.	Staff do not execute verification properly.	Avoid	Credit Analyst
	The information contained in the credit application is false.	Avoid	
Inspection of goods as collateral in case of large amounts or new credits.	It is not communicated in advance to the inspection partner.	Avoid	Credit Analyst
	Incorrect location information of goods.	Avoid	
Report of the result of the inspection of the goods as collateral.	The visit report does not meet the established parameter.	Avoid	Credit Analyst
	Untimely delivery of the visit report	Reduce	
	Issuing an unfounded criterion	Avoid	
Financial capacity assessment	Erroneous analysis of financial information.	Avoid	Credit Analyst
Approve or deny the credit application	Approving a loan without a proper analysis.	Avoid	Credit Analyst
	Deny credits to members who have a good credit history in the Cooperative.	Reduce	
Typing of the approved credit	Confusion of partner data.	Reduce	Credit Analyst
	Delay in typing.	Reduce	

	System failures	Reduce	Technological system
OUTLAY			
Verification of data and signatures on disbursement papers.	Incorrect partner and guarantor data and signatures	Reduce	Operational area
	System collapse	Reduce	Technological system
	Not signing all documents supporting the credit	Avoid	Operational area
Disbursement of money into the member's account	Send the money to another account due to mistyping.	Avoid	Operational area
PORTFOLIO TRACKING AND RECOVERY			
Generate the report of overdue credits	Report not updated.	Reduce	Collections Executive
	The system does not provide the report in a timely manner.	Reduce	Technological system
Call the member who has overdue fees from 1 to 15 days	Partner does not answer phone calls	Accept	Collections Executive
Domiciliary notification (delay from 15 to 90 days)	Change of address of the member without informing the cooperative	Accept	Collections Executive
	The member is not located at home	Accept	
Judicial process (delay more than 90 days)	Delay in the process.	Avoid	Legal Advisor
	The partner does not have the security interests.	Avoid	Legal Advisor

Source: Field Research
Prepared by: The Authors

- With the situational diagnosis that was carried out, it was determined that the organizational structure of the business area lacks an adequate location of the executives for each credit segment that the institution has, which has produced a deficient advice to the clients.

- There are no credit policies according to the segment to which the cooperatives belong and it does not have adequate control in the recovery of the overdue portfolio, due to the absence of an effective collection procedure.

- As the Portfolio Recovery process is one of the fundamental axes, it has been necessary to redesign and formulate the Credit and Collection department and the implementation of the system for the granting of credits and recovery of the overdue portfolio.

- The strategies of credit concessions and portfolio recovery, being a control tool, constitute a concrete element to protect the financial resources of the cooperative, minimizing credit risks, maximizing profits and supporting management.

5. BIBLIOGRAPHY

[1] Alegsa, L. (2012). *Systems Organization* (3rd ed). Quito: Abya Yala.
[2] Barandiaran, J. L. (2004). *Financial Credit* (2nd ed). Lima: Agroeco.
[3] Bernal, C. (2006). *Research Methodology*. Mexico: Pearson Education.
[4] Branch, G. D. (2000). *Cooperativism*. Mexico: Alfaomega.
[5] Campoverde M. F. (2000). *Credit* (2nd ed). Mexico: Pearson Education.
[6] Campoverde, F. (2001). *Leverage analysis* (3rd ed). Madrid: Universidad Complutense de Madrid.
[7] Cardozo, H. (2011). *Worker cooperatives*. Bogota: Ecoe Ediciones.
[8] Corporation of studies and publications. (2000). *Law on Cooperatives, Regulations, Related Legislation, Concordances*. Quito: CEP.
[9] Jaramillo Saenz, B. (2005). *Cooperativism path of success*. Quito: Editogran.
[10]Drucker, P. (2006). *Credit Management*. Barcelona: Norma.
[11]Ettinger, R., & Golieb, D. (1994). *Credits and Collections*. Mexico: Continental.
[12]Felix, C. (2001). *Business Economics* (2nd ed). Mexico: Pearson Education.
[13]Fernandez, (2000). *Economic Analysis*: RAE vol.27 no.1. Santiago: ProMundos.
[14]Fernandez, (2000). *Portfolio* (3rd ed). Mexico: Alfaomega.
[15]González, O. A. (2001). *Clients* (2nd ed). Mexico: Pearson Education.
[16]Hernandez, S., & Pulido Martinez, A. (2011). *Fundamentals of business management*. Mexico: Mc. Graw Hill.
[17]Hernández, R., et al. (2010). *Research Methodology* (5th ed). Mexico: Mc Graw Hill.
[18]Kaizen-Gemba. (2004). *Client Portfolio*. Havana: Félix Varela Polygraph.
[19]Lara Muñoz, E. (2011). *Research Fundamentals*. Mexico: Alfaomega .
[20]Martinez Sarmiento, M. (2009). *Administration of Information Systems* (5th ed). Mexico: Alfaomega.

WEBGRAFÍA

[1] *International Cooperative Alliance*. (25 of 12 of 2014). Cooperative Values. Retrieved 25/12/2014, from: http://www.aciamericas.coop/Principios-y-Valores-Cooperativos-4456
[2] *Central Bank of Ecuador*. (October 10, 2012). Financing. Retrieved from http://www.bce.fin.ec/index.php/component/k2/item/156-preguntas-frecuentes-banco-central-del-ecuador
[3] *Ecuador in Figures* . (November 2015). Inflation. Retrieved from http://www.ecuadorencifras.gob.ec/documentos/web-inec/Inflacion/2015/InflacionNoviembre2015/Presentacion_IPC_noviembre15.pdf
[4] Espino González, M. (31, 2014, 01). *Exellence Executive Training*. Retrieved from https://excellencecapacitacion.wordpress.com/areas-de-capacitacion/recuperacion-de-cartera-vencida/
[5] Hunter, T. (2015). *Finance*. Retrieved from http://www.ehowenespanol.com/definicion-cartera-clientes-hechos_470246/
[6] Perdomo, M. (22-12-2014). *Definition of Cooperativism*. Obtained from Cooperativism: http://es.scribd.com/doc/74033176/Definicion-de-Cooperativismo#scribd
[7] Superintendency of Banks. (2000). *Credit and Collection Management*. Mexico: Consutores figure.
[8] Verito Paola. (05 of 12 of 2010). *Collection Policies*. Retrieved from https://es.scribd.com/doc/29793575/