

ORIGINAL

## Financial literacy levels and their influence on the entrepreneurial aspirations of residents of the Flores parish, Riobamba - Ecuador 2024

### Niveles de alfabetización financiera y su influencia en las aspiraciones emprendedoras de los residentes de la parroquia Flores, Riobamba - Ecuador 2024

Gina Maricela Cedeño Ávila<sup>1</sup>  , Myriam Johanna Naranjo Vaca<sup>1</sup>  , Marco Antonio Gavilanes Sagñay<sup>1</sup>  , Francisco Eduardo Toscano Guerrero<sup>1</sup>  

<sup>1</sup>Escuela Superior Politécnica de Chimborazo, Facultad de Administración de Empresas, Escuela de Finanzas Riobamba. Ecuador.

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Corresponding Author: Gina Maricela Cedeño Ávila 

#### ABSTRACT

This study addresses the problem of low financial literacy in the Flores parish, which limits entrepreneurial opportunities and the efficient management of economic resources. The lack of financial knowledge has made access to formal credit difficult and has increased dependence on informal financing sources. In this context, the objective was to investigate the relationship between financial literacy levels and their impact on the entrepreneurial aspirations of the inhabitants, in order to propose strategies that promote financial education and improve economic decision-making. The methodology used included a mixed approach, combining primary sources of information or documentary review with the application of surveys to local entrepreneurs, as well as the analysis of community financial data. The results showed that most inhabitants lack basic knowledge in savings, investment and credit management, which limits the sustainability of their business initiatives. In addition, it was identified that access to financial training is limited, which reinforces the need for structured interventions. In conclusion, the importance of developing financial literacy programs adapted to the socioeconomic conditions of the community is highlighted, promoting continuing education and facilitating access to formal financing tools. Implementing these strategies will contribute to improving the economic stability of entrepreneurs and will strengthen the financial development of the Flores parish.

**Keywords:** Financial Literacy; Financial Management; Financial Inclusion; Local Development; Informal Economy; Rural Entrepreneurship.

#### RESUMEN

El presente estudio aborda la problemática de la baja alfabetización financiera en la parroquia Flores, lo que limita las oportunidades de emprendimiento y la gestión eficiente de los recursos económicos. La falta de conocimientos financieros ha dificultado el acceso al crédito formal y ha incrementado la dependencia de fuentes de financiamiento informal. En este contexto, como objetivo, se investigó la relación entre los niveles de alfabetización financiera y su incidencia en las aspiraciones emprendedoras de los habitantes, con el fin de proponer estrategias que fomenten la educación financiera y mejoren la toma de decisiones económicas. La metodología utilizada incluyó un enfoque mixto, combinando las fuentes de información primarias o revisión documental con la aplicación de encuestas a emprendedores locales, así como el análisis de datos financieros comunitarios. Los resultados evidenciaron que la mayoría de los habitantes carece de conocimientos básicos en ahorro, inversión y gestión del crédito, lo que limita la sostenibilidad de sus iniciativas empresariales. Además, se identificó que el acceso a capacitaciones financieras es reducido, lo que refuerza la necesidad de intervenciones estructuradas. Como conclusión, se destaca la importancia

de desarrollar programas de alfabetización financiera adaptados a las condiciones socioeconómicas de la comunidad, promoviendo la educación continua y facilitando el acceso a herramientas de financiamiento formal. Implementar estas estrategias contribuirá a mejorar la estabilidad económica de los emprendedores y fortalecerá el desarrollo financiero de la parroquia Flores.

**Palabras clave:** Alfabetización Financiera; Gestión Financiera; Inclusión Financiera; Desarrollo Local; Economía Informal; Emprendimientos Rurales.

## INTRODUCTION

Financial literacy is necessary for the economic and social development of the current economic ecosystem. It is considered a key factor that allows people to make informed decisions about managing their resources, contributing to their future planning, and fostering their capacity to undertake. In rural communities such as the Flores parish in the Riobamba canton of the Chimborazo province, low levels of financial literacy have been corroborated due to the lack of access to educational programs that specialize in improving knowledge of basic concepts, the insufficient financial infrastructure that characterizes the area and the prevalence of an informal economy that encourages the inhabitants to opt for financing provided by third parties or through usurers, limiting the development and sustainability of local enterprises.

This study aims to analyze the levels of financial literacy of the inhabitants of the Flores parish and its impact on entrepreneurial aspirations by identifying barriers and opportunities that the inhabitants can take advantage of and the great importance of the relationship between financial knowledge and the capacities that can be accessed to direct an enterprise. Considering that the context in which the research is being carried out is little explored, the aim is to contribute a perspective that enriches academic knowledge on financial inclusion in rural communities, while providing practical material for formulating public policies and strategies for inclusive economic development.

In addition, this work highlights the importance of developing and implementing strategies that, by conducting research, analyzing the environment, and interpreting data collected in the area, aim to strengthen levels of financial literacy through financing tools adapted to the rural environment, thus promoting economic empowerment for the strengthening of businesses for sustainability and continuous improvement, being a contribution as a replicable model for other rural areas.

## Problems

According to Credicorp as cited in the Network of Development Finance Institutions. Financial Literacy in Latin America. according to international studies on financial literacy in Latin America and the world, data varies according to economic knowledge and skill levels between countries. In Ecuador, it is verified that the penetration of financial products, 19 % of people do not have any financial product, 16 % have 1 product, 25 % have two products, 23 % have three products, and 17 % have four or more products, thus indicating that Ecuador, when compared to other Latin American countries, is at an intermediate level in terms of diversification of savings and insurance, with the following information:

Ecuador: according to data from (the Central Bank of Ecuador. Report on financial education. Ecuadorians who know savings, budgeting, interest, and debt concepts range from 30 % to 40 %, although it is taken into account that inclusion in financial literacy is limited.

Financial literacy in Ecuador is low compared to other countries, mainly those with developed economies and education systems that include financial literacy as part of their educational curriculum. "In a study by the Organization for Economic Co-operation and Development (OECD), the average score on a simple financial literacy test was 12,7 out of 21 in more than 50 countries. The score in Ecuador does not exceed 7 out of 21." (La Hora. Estudio de conocimientos financieros en Ecuador.

Therefore, Ecuador's failure to include financial literacy in its educational programs affects the growth of the index, implying a risk in decision-making and management of expenses, savings, and investments that affect the country's economic health. In this sense, it can be said that Financial Literacy in Ecuador varies, therefore, internally in its provinces, due to the fact that factors such as the limited inclusion of educational programs, the lack of financial infrastructure, and the scarce employment opportunities, affect the other components of financial attitude and behavior.

According to (Puente and Andrade et al 2023). In the central provinces of Ecuador, Pichincha has the highest level of 40 % to 45 %, followed by Guayas and Azuay with 35 % to 40 %, and lower levels in Manabí of 30 % to 35 % and Chimborazo with a range of 20 % to 25 %. It is indicated that accessibility to financial literacy programs and financial institutions in urban areas such as Quito and Guayaquil positively influences financial literacy levels.

On the other hand, Chimborazo, in its rural regions, shows more limited access, which means that in some places, there are still challenges in financial literacy compared to more urbanized provinces.

In this sense, it can be said that Chimborazo, being part of the financial literacy crisis that the country is going through, primarily for rural areas, is in an unfavorable position, which, when compared to other provinces with larger cities, needs implementing training programs with an emphasis on savings, budgeting and credit management tools.

For its part (Puente and Andrade et al 2023). In the central parishes of the Riobamba canton, Riobamba is the cantonal capital, and it leads with a 30-35 % financial literacy level due to the existence and accessibility of financial institutions and educational programs. Guano follows it with 25-30 %, driven by increasing access to cooperatives. Parishes such as Cacha and Alausí have moderate levels of 20-25 % as they have limited access to financial literacy, albeit with some community support. Flores has the lowest level at 15-20 %, reflecting its rural nature with restricted access to financial services and education programs and highlighting the disparities in financial literacy between urban and rural areas within the canton, thus emphasizing the need for more significant intervention in parishes such as Flores to improve their financial inclusion. The Flores parish has a low level of financial literacy compared to other parishes, such as Riobamba or Guano, which have better infrastructure and more support programs.

Like many rural areas in Ecuador, the Flores parish has major gaps in access to formal financing. The sources available to entrepreneurs in the parish are limited, with local savings and credit cooperatives, rural development banks, and government microcredit programs, but with reduced coverage. On the other hand, they also resort to family or community support to obtain initial capital.

Regarding financial literacy, entrepreneurs generally operate in an informal economy, with limited financial knowledge and ability to manage daily income and expenditures. They do not deeply understand credit, formal savings, and investment issues. Despite some sporadic workshops run by NGOs, financial literacy remains rudimentary.

The causes of this situation include geographical isolation, the lack of financial infrastructure in the region, and the absence of sustained educational programs. As a result, entrepreneurs in Flores face difficulties in growing their businesses, limiting local employment and perpetuating cycles of poverty. In addition, the lack of financial literacy reduces their ability to take advantage of formal financing opportunities, increasing their dependence on informal loans with higher risks and unfavorable conditions. This also restricts their ability to save and invest in improvements for their businesses, hindering the sustainable economic development of the community.

In this sense, (Mancheno et al.) state that “medium taxpayers (MSMEs) of low fiscal significance (including RISE for Ecuador) constitute the most difficult sector to control, given the magnitude reached by the informal or underground economy (contraband). Therefore, in terms of the way entrepreneurs operate, due to their level of financial literacy, it is considered an informal economy since “the informal economy has its characteristics, the commercialization of goods and services on a small scale with long hours of intensive work and without protection,” since most of the enterprises operate without commercial registration and with empirical financial processes, resulting in basic financial literacy with limited knowledge. However, the parish can benefit from specific training from some NGOs and local cooperatives that sporadically provide essential savings and budgeting workshops in particular sectors.

The Flores parish, located in the Riobamba canton of the Chimborazo province, is characterized by an economy in transition. It has a dynamic environment due to the sector's traditional agricultural activities and growing interest in entrepreneurship. Despite the entrepreneurial spirit of its inhabitants, the limited accessibility to knowledge and lack of financial skills can be an essential barrier that hinders the development of sustainable business initiatives. Financial literacy, understood as the ability to understand and apply basic concepts in economic decision-making, is necessary for the creation and optimal management of businesses. However, there is a worrying increase in the low levels of financial literacy of the residents of Flores and its impact on their entrepreneurial aspirations.

According to Montaña and Ferrada et al. (2021), several studies have shown that a high level of financial literacy is positively linked to entrepreneurs' ability to plan, manage, and expand their businesses. A lack of knowledge about concepts such as budgeting, saving, investing, and credit can lead to inappropriate economic decisions, affecting personal financial stability and, in turn, the viability of entrepreneurial projects.

In this sense, in the Flores parish, the absence of suitable educational programs in personal finance could obstruct entrepreneurs' opportunities to become successful microentrepreneurs, in turn affecting the locality's economic growth. This can lead to individuals facing difficulties in resource management, obtaining financing, and making strategic decisions, resulting in high rates of business failure.

Promoting education and financing for entrepreneurship within the Flores parish highlights how these actions can have a positive impact on the local economy and the quality of life of its inhabitants. The lack of access to financial resources and business education limits the community's growth opportunities and perpetuates the

informal economy, which generates obstacles to socioeconomic development.

**Objective:** to determine levels of financial literacy to identify the impact on the entrepreneurial aspirations of the inhabitants of the Flores parish in the Riobamba canton, Chimborazo province.

## METHOD

The present study adopted a mixed-method approach, integrating both qualitative and quantitative methods to understand financial literacy and its effects on entrepreneurial aspirations in Flores parish. This design allowed for data triangulation, improving the validity and depth of the findings. The study's target population included the adult inhabitants of Flores parish, with a particular focus on those who identify as entrepreneurs or aspiring entrepreneurs. Purposive sampling was used to select participants who could offer relevant information on financial literacy and entrepreneurial aspirations. One hundred local entrepreneurs were surveyed, seeking an adequate representation of different sectors and socioeconomic levels. Data collection was carried out using two main tools: structured surveys. A questionnaire was designed with closed and open questions that evaluated the participants' financial knowledge in key areas such as savings, investment, budgeting, and credit management. The surveys included Likert scales to measure participants' perceptions of their level of financial literacy and their entrepreneurial aspirations.

Relevant documents, including community financial reports and previous studies on financial literacy in the region, were analyzed. This review provided additional context and allowed for corroboration of the data obtained through the surveys.

Comparisons were made between different groups of entrepreneurs according to their level of financial literacy and their aspirations. In addition, the implications of the findings in terms of public policy and community development were discussed, and specific strategies to improve financial education in the parish were proposed.

## RESULTS

**Table 1.** Number of elements for case processing in Cronbach's Alpha

		N	%
Cases	Valid	20	95,2
	Excluded <sup>a</sup>	1	4,8
	Total	21	100,0

**Table 2.** Cronbach's Alpha as a test of the instrument's reliability

Cronbach's alpha	No. of items
0,875	20

Using the Cronbach's Alpha reliability test with a pilot test and its application to 20 surveys, a value of 0,875 was obtained. As this is higher than 0,7, it can be identified that the instrument to be applied as a definitive survey is consistent, with a correlation and synergy between the variables under study and those included in the questionnaire.

## Survey

### Questionnaire questions

**Table 3.** Question 1: age of respondents

	Frequency	%	Absolute value	Relative value
18-28	148	38,9	38,9	38,9
29-39	46	12,1	12,1	51,1
40-50	84	22,1	22,1	73,2
51-61	46	12,1	12,1	85,3
62+	56	14,7	14,7	100,0
Total	380	100,0	100,0	

**Table 4.** Question 2: gender of respondents

	<b>Frequency</b>	<b>%</b>	<b>Absolute value</b>	<b>Relative value</b>
Feminine	186	48,9	48,9	48,9
Masculine	194	51,1	51,1	100,0
Total	380	100,0	100,0	

**Table 5.** Question 3: marital status of respondents

	<b>Frequency</b>	<b>%</b>	<b>Absolute value</b>	<b>Relative value</b>
Single	167	43,9	43,9	43,9
Married	114	30,0	30,0	73,9
Free Union	49	12,9	12,9	86,8
Divorced	23	6,1	6,1	92,9
Widower	27	7,1	7,1	100,0
Total	380	100,0	100,0	

**Table 6.** Question 4: educational level of respondents

	<b>Frequency</b>	<b>%</b>	<b>Absolute value</b>	<b>Relative value</b>
Primary	112	29,5	29,5	29,5
Secondary	162	42,6	42,6	72,1
Technical	34	8,9	8,9	81,1
University	68	17,9	17,9	98,9
Postgraduate	4	1,1	1,1	100,0
Total	380	100,0	100,0	

**Table 7.** Question 5: income level of respondents

	<b>Frequency</b>	<b>%</b>	<b>Absolute value</b>	<b>Relative value</b>
460-560	288	75,8	75,8	75,8
561-661	57	15,0	15,0	90,8
662-772	23	6,1	6,1	96,8
773-883	8	2,1	2,1	98,9
884+	4	1,1	1,1	100,0

**Table 8.** Question 6: respondents' knowledge of basic financial concepts

	<b>Frequency</b>	<b>Percentage</b>	<b>Absolute value</b>	<b>Relative value</b>
Strongly disagree	42	11,1	11,1	11,1
Disagree	65	17,1	17,1	28,2
Neutral	111	29,2	29,2	57,4
Agree	130	34,2	34,2	91,6
Strongly agree	32	8,4	8,4	100,0
Total	380	100,0	100,0	

**Table 9.** Question 7: management of income and expenditure through monthly budget monitoring

	<b>Frequency</b>	<b>Percentage</b>	<b>Absolute value</b>	<b>Relative value</b>
Strongly disagree	46	12,1	12,1	12,1
Disagree	74	19,5	19,5	31,6
Neutral	139	36,6	36,6	68,2
Agree	93	24,5	24,5	92,6
Strongly agree	28	7,4	7,4	100,0
Total	380	100,0	100,0	

**Table 10.** Question 8: Ability of respondents to interpret terms of contracts and loans

	Frequency	Percentage	Absolute value	Relative value
Strongly disagree	55	14,5	14,5	14,5
Disagree	74	19,5	19,5	33,9
Neutral	130	34,2	34,2	68,2
Agree	102	26,8	26,8	95,0
Strongly agree	19	5,0	5,0	100,0
Total	380	100,0	100,0	

**Table 11.** Question 9: knowledge of financing options for starting or expanding a business

	Frequency	Percentage	Absolute value	Relative value
Strongly disagree	46	12,1	12,1	12,1
Disagree	79	20,8	20,8	32,9
Neutral	148	38,9	38,9	71,8
Agree	79	20,8	20,8	92,6
Strongly agree	28	7,4	7,4	100,0
Total	380	100,0	100,0	

**Table 12.** Question 10: importance of saving and long-term planning

	Frequency	Percentage	Absolute value	Relative value
Strongly disagree	51	13,4	13,4	13,4
Disagree	47	12,4	12,4	25,8
Neutral	129	33,9	33,9	59,7
Agree	111	29,2	29,2	88,9
Strongly agree	42	11,1	11,1	100,0
Total	380	100,0	100,0	

**Table 13.** Question 11: entrepreneurial aspirations for the coming years

	Frequency	Percentage	Absolute value	Relative value
Strongly disagree	42	11,1	11,1	11,1
Disagree	15	3,9	3,9	15,0
Neutral	97	25,5	25,5	40,5
Agree	158	41,6	41,6	82,1
Strongly agree	68	17,9	17,9	100,0
Total	380	100,0	100,0	

**Table 14.** Question 12: financial knowledge to support entrepreneurial aspirations

	Frequency	Percentage	Absolute value	Relative value
Strongly disagree	55	14,5	14,5	14,5
Disagree	60	15,8	15,8	30,3
Neutral	125	32,9	32,9	63,2
Agree	116	30,5	30,5	93,7
Strongly agree	24	6,3	6,3	100,0
Total	380	100,0	100,0	

**Table 15.** Question 13: financial literacy enables entrepreneurial success

	Frequency	Percentage	Absolute value	Relative value
Strongly disagree	32	8,4	8,4	8,4
Disagree	46	12,1	12,1	20,5
Neutral	88	23,2	23,2	43,7
Agree	158	41,6	41,6	85,3
Strongly agree	56	14,7	14,7	100,0
Total	380	100,0	100,0	

**Table 16.** Question 14: respondents' access to financial resources

	Frequency	Percentage	Absolute value	Relative value
Strongly disagree	46	12,1	12,1	12,1
Disagree	60	15,8	15,8	27,9
Neutral	158	41,6	41,6	69,5
Agree	88	23,2	23,2	92,6
Strongly agree	28	7,4	7,4	100,0
Total	380	100,0	100,0	

**Table 17.** Question 15: financial barriers limit entrepreneurial aspirations

	Frequency	Percentage	Absolute value	Relative value
Strongly disagree	32	8,4	8,4	8,4
Disagree	51	13,4	13,4	21,8
Neutral	130	34,2	34,2	56,1
Agree	139	36,6	36,6	92,6
Strongly agree	28	7,4	7,4	100,0
Total	380	100,0	100,0	

**Table 18.** Question 16: own resources and assets of respondents to start or support a business

	Frequency	%	Absolute value	Relative value
Yes, I have initial capital	106	27,9	27,9	27,9
Yes, I have material goods (tools, premises, land, etc.)	80	21,1	21,1	48,9
No, but I can access resources through funding.	87	22,9	22,9	71,8
No, and I don't have access to capital or assets.	107	28,2	28,2	100,0
Total	380	100,0	100,0	

**Table 19.** Question 17: current main financial interest

	Frequency	%	Absolute value	Relative value
Saving for future needs	125	32,9	32,9	32,9
Investments to generate long-term returns.	110	28,9	28,9	61,8
Starting or launching your own business	122	32,1	32,1	93,9
None of the above	23	6,1	6,1	100,0
Total	380	100,0	100,0	

**Table 20.** Question 18: Perception of money

	Frequency	%	Absolute value	Relative value
Security medium	137	36,1	36,1	36,1
Consumption medium	129	33,9	33,9	70,0
Investment medium	114	30,0	30,0	100,0
Total	380	100,0	100,0	

**Table 21.** Question 19: motivation behind entrepreneurial aspirations

	Frequency	%	Absolute value	Relative value
Economic independence	182	47,9	47,9	47,9
Additional income	110	28,9	28,9	76,8
Personal fulfillment	88	23,2	23,2	100,0
Total	380	100,0	100,0	

**Table 22.** Question 20: capacity for tolerance of financial risk

	Frequency	%	Absolute value	Relative value
Very uncomfortable: I prefer to avoid any risk, even if the potential benefit is high.	84	22,1	22,1	22,1
Uncomfortable: I take minimal risks, preferring safe options with low returns.	122	32,1	32,1	54,2
Neutral: I assess the possibilities and could take a moderate risk if the benefit is considerable.	156	41,1	41,1	95,3
Comfortable: I am willing to take high risks if there is a significant opportunity for gain.	18	4,7	4,7	100,0
Total	380	100,0	100,0	

**Table 23.** Question 21: experience with entrepreneurship

	Frequency	%	Absolute value	Relative value
Yes, I currently have a business up and running.	135	35,5	35,5	35,5
Yes, but it didn't continue to work.	106	27,9	27,9	63,4
No, but I'm in the process of starting one	91	23,9	23,9	87,4
No, I have never had a business	48	12,6	12,6	100,0
Total	380	100,0	100,0	

**Table 24.** Question 22: learning from previous business experience

	Frequency	%	Absolute value	Relative value
I learned to manage my resources better	133	35,0	35,0	35,0
I learned to identify opportunities and risks	125	32,9	32,9	67,9
I did not learn anything significant	61	16,1	16,1	83,9
I have no previous business experience	61	16,1	16,1	100,0
Total	380	100,0	100,0	

**Table 25.** Question 23: financial services needed in the community to support entrepreneurship

	Frequency	%	Absolute value	Relative value
Opening of more banks or cooperatives	110	28,9	28,9	28,9
More workshops and training sessions available	171	45,0	45,0	73,9
Digital services that facilitate access to information	91	23,9	23,9	97,9
Others	8	2,1	2,1	100,0
Total	380	100,0	100,0	

**Table 26.** Question 24: limitations due to the community's geography

	Frequency	%	Absolute value	Relative value
Lack of access to financial services	122	32,1	32,1	32,1
Limited availability of markets for the commercialization of products	148	38,9	38,9	71,1
Shortage of educational and training programs	94	24,7	24,7	95,8
Others	16	4,2	4,2	100,0
Total	380	100,0	100,0	

**Table 27.** Question 25: improvements needed in the community to promote entrepreneurship

	Frequency	%	Absolute value	Relative value
Improved connectivity (roads, transportation, etc.)	175	46,1	46,1	46,1
Increase in local financial and educational services.	129	33,9	33,9	80,0
Creation of markets and events for the promotion of local products.	68	17,9	17,9	97,9
Others	8	2,1	2,1	100,0
Total	380	100,0	100,0	

## DISCUSSION

In addressing the relationship between the variables of financial literacy and entrepreneurial aspirations of the inhabitants of the Flores parish in the Riobamba canton, the respective fieldwork was carried out where the data obtained through the use of the survey undoubtedly reflects a complex situation in which various socioeconomic, educational and financial factors affect the entrepreneurial development of the community, determining the following key findings:

41,6 % of those surveyed agreed with the statement that having financial literacy would improve the chances of success of their ventures. In comparison, 14,7 % agreed, thus confirming that economic knowledge is essential, considering it as a factor that enhances entrepreneurial aspirations, by theories such as that of (Bandura, and Albert et al.), whose observation indicates that learning and self-efficacy influence people's ability to achieve specific goals. In this sense, 41,1 % of the participants were neutral about their comfort level in taking financial risks, thus indicating insecurity and lack of confidence in making risky monetary decisions.

On the other hand, among the barriers that have been identified, 38,9 % of those surveyed identified the limited availability of markets to sell products as the main restriction due to geographical location, followed by 32,1 %, who mentioned the lack of access to financial services. This highlights the importance of creating policies to improve connectivity and expand the financial services available to entrepreneurs in this rural area.

Furthermore, 33,9 % of those surveyed considered that an increase in local financial and educational services is one of the improvements most demanded by the community to facilitate the development and continuous improvement of entrepreneurship. This aspect reinforces the hypothesis that greater access to financial and educational resources can promote a strengthened and sustainable entrepreneurial ecosystem.

Analyzing demographic variables or general data makes it possible to construct the profile of local entrepreneurs. About the demographic profile, 48,9 % of those surveyed are women, and 51,1 % are men,

reflecting equal participation in entrepreneurial activities. In addition, 38,9 % belong to the 18-28 age group, thus highlighting a significant interest in entrepreneurship among the young population. However, only 8,9 % of those surveyed have technical training, and barely 1,1 % have reached a postgraduate level, which reflects the need for the essential strengthening of the educational skills of the population to improve entrepreneurial capacities.

In terms of access to resources and learning, it was observed that 27,9 % of the interventions stated that they had initial capital. In comparison, 28,2 % indicated that they did not have access to capital or assets, demonstrating with these data that a considerable part of the population faces difficulties in financing their entrepreneurial projects. Despite this, 35 % said that their previous business experience had allowed them to learn how to manage their resources better, highlighting the importance of practicing and learning to implement entrepreneurial skills.

Based on the information gathered, key areas of intervention were identified to promote entrepreneurship in the Flores parish. Infrastructure and connectivity are essential for accessing the community, based on the specific consideration of 46,1 % of respondents for improving efficient public transport. Therefore, investing in infrastructure would facilitate access to markets and resources.

In this way, when it comes to financial and educational services, the inhabitants expressed that increasing the availability of workshops, training, and economic cooperatives is necessary to help continuously overcome the identified barriers. It will allow them to promote local products since 17,9 % highlight that creating markets and events to promote local products is essential since it could generate marketing opportunities.

In summary, the extracted data highlights the significant relationship between financial literacy and entrepreneurial aspirations in the Flores parish. Although the community's structural and educational barriers limit entrepreneurship development, opportunities can be seen for the design of public policies and private initiatives that contribute to strengthening the entrepreneurial ecosystem. This study provides a basis for future research that will lead to actions aimed at enhancing the capacities and aspirations of local entrepreneurs.

Table 28. chi-square tests			
	Value	gl	Asymptotic (bilateral) significance
Pearson's chi-square	798,860 <sup>a</sup>	16	<0,001
Plausibility ratio	688,598	16	<0,001
Linear association by linear	319,178	1	<0,001
No. of valid cases	380		

**Note:** a. 4 boxes (16 %) expected a lower count than 5. The minimum expected count is 2,69.

According to the critical values table for Chi-square distribution with a significance level of 0,1 % and with degrees of freedom of 16, the test statistic calculated with a value of 798,860 is obtained, defining that within a range of 0 - 39,2524 the result obtained is outside the context of denial and within the condition in the acceptance zone. Therefore, the hypothesis to be proven, H1, is accepted.

Therefore, the analyzed data indicate that "The higher the levels of financial literacy, the higher the aspirations and the perception of success in entrepreneurship".

Table 29. PESTEL matrix of the situational analysis of Flores parish

Profile	Factors	Very negative	Negative	Indifferent	Positive	Very positive
Political	Government programs to support entrepreneurship		X			
	Access to credit and state funding	X				
Economy	Tax regulations for micro-enterprises	X				
	Level of access to financial services in the parish	X				
	Lack of markets to commercialize products.	X				
	High costs of inputs for entrepreneurship	X				
	Entrepreneurial growth as an employment alternative				X	

Social	Level of financial literacy in the population Entrepreneurial culture in the community	X	X
Technological	Lack of entrepreneurship training programs Access to technology and paid digital platforms	X	
	Use of social networks to promote entrepreneurship		X
	Availability of training in digital tools	X	
Ecological/ Environmental	Sustainable use of resources in entrepreneurship Environmental regulations for small businesses.		X
Legal	Ease of formalizing business. Regulations for informal enterprises	X	X

The PESTEL Matrix indicates that the environment of Flores parish presents challenges and opportunities for entrepreneurial development. On a political level, the lack of local policies to support entrepreneurship limits access to financial incentives. On the economic side, the lack of access to financing and the dependence on external markets affect the stability of businesses. From a social point of view, the low level of financial education and the informal nature of the enterprises are barriers that must be overcome. In the technological sphere, limited access to digital tools hinders the modernization of businesses. In ecological terms, enterprises' lack of sustainable practices represents environmental risks. Finally, on the legal side, informality and lack of knowledge about tax regulations obstruct the growth and formalization of businesses.

## CONCLUSIONS

The analysis shows a clear relationship between the levels of financial literacy and the entrepreneurial aspirations of the inhabitants of the Flores parish, highlighting that the lack of financial education significantly limits the ability of these individuals to make informed economic decisions and, therefore, to undertake. Deficiencies in the ability to save and access formal financing and dependence on informal sources constitute barriers that increase the risk of indebtedness and hinder the sustainability of businesses. This context highlights the urgency of implementing effective financial literacy strategies that provide essential knowledge and promote practical application in local enterprises. Continuous training and the integration of technologies are necessary to enhance the impact of these initiatives, making it imperative to have the support of institutions that facilitate their implementation and sustainability. This opens the door to more robust economic development and a more promising entrepreneurial future for the community.

## BIBLIOGRAPHIC REFERENCES

1. Alonso J, y Ildefonso E. Comportamiento del consumidor: decisiones y estrategia de marketing. 2013. ESIC Editorial. Disponible en: [https://books.google.com.ec/books?id=XkcfCgAAQBAJ&printsec=frontcover&hl=es&source=gbs\\_ge\\_summary\\_r&cad=0#v=onepage&q&f=false](https://books.google.com.ec/books?id=XkcfCgAAQBAJ&printsec=frontcover&hl=es&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false)
2. Álvarez J,y Barreto G. Polo del Conocimiento. Emprendimientos por necesidad: un análisis a su competitividad en las MIPYMES ecuatorianas. 2021;6(3):1647-63. Disponible en: <https://polodelconocimiento.com/ojs/index.php/es/article/view/2461>
3. Anderson A, y Fuentes E, Peña M. Incidencia de los factores socioeconómicos en la alfabetización financiera. "Revista mexicana de economía y finanzas" por "Rev Mex Econ Fin.". Disponible en: [https://www.scielo.org.mx/scielo.php?pid=S1665-53462024000100004&script=sci\\_arttext](https://www.scielo.org.mx/scielo.php?pid=S1665-53462024000100004&script=sci_arttext)
4. Anderson A, Peña M, y López C et al. Determinantes de la alfabetización financiera. "Investigación administrativa". 2020;49(125). Disponible en: [https://www.scielo.org.mx/scielo.php?pid=S2448-76782020000100005&script=sci\\_arttext](https://www.scielo.org.mx/scielo.php?pid=S2448-76782020000100005&script=sci_arttext)
5. Banco Central del Ecuador. Informe estadístico de Inclusión Financiera. 2023. Disponible en: [https://contenido.bce.fin.ec/documentos/Estadisticas/SectorMonFin/InclusionFinanciera/InfEst\\_IF\\_092023.pdf](https://contenido.bce.fin.ec/documentos/Estadisticas/SectorMonFin/InclusionFinanciera/InfEst_IF_092023.pdf)
6. Caballero J, Morales R, Arrua K at al. Alfabetización financiera: factores determinantes en estudiantes de administración. "Revista Latinoamericana de Investigación Social". 2022;5(3):1-26. Disponible en: <https://doi.org/10.56294/sctconf20251586>

[repository.lasalle.mx/bitstream/handle/lasalle/2869/RELAIS%205%203%201b.pdf?sequence=1&isAllowed=y](https://repositorio.lasalle.mx/bitstream/handle/lasalle/2869/RELAIS%205%203%201b.pdf?sequence=1&isAllowed=y)

7. Cobeña Á. Fortalecimiento de los programas de educación financiera para la inclusión y la accesibilidad. 2023 Tesis de Pregrado, Facultad Latinoamericana de Ciencias Sociales, Quito. Disponible en: <https://repositorio.flacsoandes.edu.ec/bitstream/10469/19809/2/TFLACSO-2023AMCZ.pdf>

8. CRISFE. Fomenta la cultura financiera en el Ecuador. 2024. Disponible en: <https://crisfe.org/blogs/fomentamos-cultura-financiera-ecuador>

9. Culebro R. Alfabetización Financiera y Desempeño de las MIPYMES en el Estado de Veracruz, México. "Revista Latinoamericana de Investigación Social". 2023;20(40):116-33. Disponible en: <https://revistainnovaciones.uanl.mx/index.php/revin/article/view/432/473>

10. Damián J. Factores que influyen en la intención emprendedora en los estudiantes de Ciencias Empresariales, cohorte 2015-2020. "Revista de investigación educativa de la Rediech". 2023;14:1-18. doi: [https://doi.org/10.33010/ie\\_rie\\_rediech.v14i0.1827](https://doi.org/10.33010/ie_rie_rediech.v14i0.1827)

11. De la Hoz J. Determinación de factores que afectan la alfabetización financiera de los habitantes del departamento del Atlántico utilizando modelos de regresión ordenada. 2021. Tesis de Pregrado, Universidad del Norte. Disponible en: <https://manglar.uninorte.edu.co/handle/10584/10266#page=1>

12. EGAD Parroquial de Flores. 2023-2027. Disponible en: <https://flores.gob.ec/produccion-importante/>

13. García E, Murillo J, Asín J et al. Motivaciones para el emprendimiento social. "Acciones e Investigaciones Sociales". 2019;40:219-45. Disponible en: <https://papiro.unizar.es/ojs/index.php/ais/article/view/4203/3535>

14. García J, Cruz D, Torres E. Determinantes de la alfabetización financiera de los empleadores en México. "Revista mexicana de economía y finanzas". 2024;19(1). Disponible en: [https://www.scielo.org.mx/scielo.php?pid=S1665-53462024000100009&script=sci\\_arttext](https://www.scielo.org.mx/scielo.php?pid=S1665-53462024000100009&script=sci_arttext)

15. Henríquez M. Tres ensayos sobre las aspiraciones de crecimiento del emprendedor: antecedentes, moderadores y consecuencias. 2023. Tesis doctoral, Universitat Autònoma de Barcelona. Disponible en: [https://ddd.uab.cat/pub/tesis/2024/hdl\\_10803\\_690689/mcahd1de1.pdf](https://ddd.uab.cat/pub/tesis/2024/hdl_10803_690689/mcahd1de1.pdf)

16. INEC. Ecuador en cifras. 2001. Disponible en: [https://www.ecuadorencifras.gob.ec/documentos/web-inec/Bibliotecas/Fasciculos\\_Censales/Fasc\\_Cantonales/Chimborazo/Fasciculo\\_Riobamba.pdf](https://www.ecuadorencifras.gob.ec/documentos/web-inec/Bibliotecas/Fasciculos_Censales/Fasc_Cantonales/Chimborazo/Fasciculo_Riobamba.pdf)

17. Izurieta C. Diseño de un modelo de educación financiera para la cooperativa de ahorro y crédito Riobamba Ltda. en la provincia de Chimborazo. 2021. Tesis de Pregrado, Escuela Superior Politécnica de Chimborazo. Disponible en: <http://dspace.espoch.edu.ec/handle/123456789/15071>

18. Labrad.fisica.edu.uy. Tabla-Distribución Chi Cuadrado. 2006. Disponible en linea: [http://labrad.fisica.edu.uy/docs/tabla\\_chi\\_cuadrado.pdf](http://labrad.fisica.edu.uy/docs/tabla_chi_cuadrado.pdf)

19. López S, Álvarez M, Rey L. La alfabetización financiera y las características sociodemográficas del emprendedor: un análisis de las pequeñas empresas españolas. "Journal of Globalization, Competitiveness and Governability". 2023;17(1):49-69. Disponible en: <https://gchgjournal.georgetown.edu/index.php/gcg/article/view/4301>

20. Lusardi A, Mitchell O. La importancia económica de la alfabetización financiera: teoría y pruebas. Centro de Estudios Monetarios Latinoamericanos. 2016. Disponible en: [https://www.cemla.org/PDF/boletin/PUB\\_BOL\\_LXII-04-01.pdf](https://www.cemla.org/PDF/boletin/PUB_BOL_LXII-04-01.pdf)

21. Mancheno L, et al. Identificación de las actividades económicas de la economía informal: cuenta propia del cantón Riobamba. Trabajo presentado en el VI Congreso Internacional de la Ciencia Tecnología Emprendimiento e Innovación. 2019;260-96. Disponible en: [https://www.researchgate.net/profile/Cristian-Patino-Vidal/publication/335821492\\_Evaluacion\\_de\\_la\\_actividad\\_antimicrobiana\\_de\\_nanotubos\\_de\\_dioxido\\_de\\_titanio\\_obtenidos\\_mediante\\_la\\_combinacion\\_de\\_las\\_](https://www.researchgate.net/profile/Cristian-Patino-Vidal/publication/335821492_Evaluacion_de_la_actividad_antimicrobiana_de_nanotubos_de_dioxido_de_titanio_obtenidos_mediante_la_combinacion_de_las_)

22. Mena C. Alfabetización financiera en jóvenes en Ecuador: modelo de medición y sus factores

determinantes. Información Tecnológica. 2022;33(1):81-90. doi: <http://dx.doi.org/10.4067/S0718-07642022000100081>.

23. Pierre F. El emprendimiento y su aporte a la economía ecuatoriana. “Revista Investigación y Negocios”. 2023;16(27):25-40. doi:10.38147/invneg.v16i27.209.

24. Puente M, Andrade N. Educación financiera y el endeudamiento con las tarjetas de crédito en la provincia de Chimborazo, período 2015-2020. 2023. Tesis de Pregrado, Universidad Nacional de Chimborazo. Disponible en: <http://dspace.unach.edu.ec/bitstream/51000/11860/1/Andrade%20Armas%2C%20N.%20%282023%29%20Educaci%C3%B3n%20financiera%20y%20el%20endeudamiento%20con%20las%20tarjetas%20de%20cr%C3%A9dito%20en%20la%20provincia%20de%20Chimborazo%2C%20per%C3%ADodo%202015-2020..pdf>

25. Red de Instituciones Financieras de Desarrollo. La inclusión Financiera en Ecuador. 2023. Disponible en: <https://rfd.org.ec/docs/2024/estudios/Avances%20de%20la%20Inclusi%C3%B3n%20Ecuador%202023/Avances%20de%20la%20Inclusi%C3%B3n%20Financiera%20en%20el%20Ecuador%202023.pdf>

26. Ruiz J, García L, Flores S, Barragán A et al. Razones para promover la motivación en la Educación Superior: impacto de la motivación en la creatividad y el ser emprendedor. “Know and share Psychology”. 2022;3(3):208-36. doi: <https://doi.org/10.25115/kasp.v3i3.6933>.

27. Sánchez K. Factores que influyen en el emprendimiento de microempresas dedicadas a la venta de comidas en el cantón Durán. Tesis de Maestría, Universidad Católica de Santiago de Guayaquil. 2023. Disponible en: [https://www.lareferencia.info/vufind/Record/EC\\_417d55aea188aba93cb7b7c20e21cc16](https://www.lareferencia.info/vufind/Record/EC_417d55aea188aba93cb7b7c20e21cc16).

28. Schreiner M, Woller G et al. Programas de desarrollo de microempresas en los Estados Unidos y en el mundo en desarrollo. “World Development”. 2003;31(9):1567-80. Disponible en: <https://rfd.org.ec/biblioteca/pdfs/LP-046.pdf>

29. Villalta A, Cueva N. et al La educación financiera y su incidencia en los comerciantes del cantón Zapotillo. Ciencia Latina “Ciencia Latina Revista Científica Multidisciplinar”. 2022;6(2):4102-23. Disponible en: <https://ciencialatina.org/index.php/cienciala/article/view/2152>

30. Ynzunza C, Izar J. Las motivaciones, competencias y factores de éxito para el emprendimiento y su impacto en el desempeño empresarial. Un análisis en las MIPyMES en el estado de Querétaro, México. “Contaduría y administración”. 2021;66(1):1-26.

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## CONFLICT OF INTEREST

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## AUTHORSHIP CONTRIBUTION

*Conceptualization:* Gina Maricela Cedeño Avila, Myriam Johanna Naranjo Vaca.

*Data curation:* Gina Maricela Cedeño Avila, Myriam Johanna Naranjo Vaca, Francisco Eduardo Toscano Guerrero.

*Formal analysis:* Gina Maricela Cedeño Avila, Myriam Johanna Naranjo Vaca, Francisco Eduardo Toscano Guerrero.

*Research:* Gina Maricela Cedeño Avila, Myriam Johanna Naranjo Vaca, Francisco Eduardo Toscano Guerrero.

*Methodology:* Gina Maricela Cedeño Avila, Myriam Johanna Naranjo Vaca.

*Project administration:* Gina Maricela Cedeño Avila, Myriam Johanna Naranjo Vaca.

*Supervision:* Gina Maricela Cedeño Avila, Myriam Johanna Naranjo Vaca.

*Validation:* Gina Maricela Cedeño Avila, Myriam Johanna Naranjo Vaca, Francisco Eduardo Toscano Guerrero.

*Writing - original draft:* Gina Maricela Cedeño Avila, Myriam Johanna Naranjo Vaca, Marco Antonio Gavilanes Sagñay, Francisco Eduardo Toscano Guerrero.

*Writing - revision and editing:* Gina Maricela Cedeño Avila, Marco Antonio Gavilanes Sagñay, Francisco Eduardo Toscano Guerrero.