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## Contribution and Evolution of the Popular and Solidarity Economy System: Ecuador Case

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### **Abstract**

*Analyzing the contribution and evolution of the popular and solidarity economy (EPS) is of relevant interest due to its dynamism and impact on our economy. Quantitative data were collected from savings and credit cooperatives (COAC), mutual society members and communal savings banks during the period 2018-2022. For the analysis of the information, descriptive statistics and computer tools were used to process the results, demonstrating a growing trend and strengthening of the micro finance sector. The year 2022 was the highest peak in its financial operations, with men most demanding loans and women saving the most.*

**Keywords:** Sector, Popular and Solidarity Economy, Entrepreneurship, Recruitments, Placements

### **Introduction**

The Solidarity Economy is presented in many countries as an alternative economic model, born in Latin America and is currently formed by movements and experiences in all countries of the continent (Battisti et al., 2020). It seeks sustainable development and ensures the inclusiveness of growth in the most vulnerable sectors (Carabajo & Rosales, 2021). It implies promoting production, distribution, consumption, accumulation and development where solidarity is introduced into the economy itself (Barrionuevo & Cárdenas, 2022), contributing to the generation of wealth through the allocation of resources with the purpose of promoting entrepreneurship in the inhabitants of a country (Bravo et al., 2019).

The popular and solidarity economy (EPS) is an economic approach based on the active participation of the community and the promotion of values such as solidarity, equity and sustainability (Malla, 2021). The evolution of the popular and solidarity economy has been remarkable in recent years in different countries and its importance in economic and social development has been recognized. In many countries, the popular and solidarity economy has been

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promoted through the implementation of specific laws and policies. Institutions and regulatory bodies have been created to promote, regulate and support the development of organizations and enterprises of the popular and solidarity economy. These legal and institutional frameworks have provided important support for their growth and development; as well as the diversification of organizations (Cardoso, 2019).

Under this premise, the financial system plays a key role in the functioning of the economy, since through it the different financial activities are carried out, for this reason, the adequate participation of financial entities contributes to raising economic growth and well-being of the population in Ecuador (Ordóñez et al., 2020). Since its introduction in the country, the financial system has played a significant role in encouraging active participation and collaboration among its members to achieve common goals. Over the years, the cooperative system has demonstrated its ability to promote financial inclusion, boost entrepreneurship and strengthen the local economy (Pérez & Titelman, 2018).

For Cuenca et al. (2022), the financial system is a mechanism for distributing funds, its operation influences the economic balance of a country, because it will depend on it, the constant improvement in the operation of the funds received by financial institutions as deposits, through the granting of credits that boost productive activity. In addition, the financial system aims to channel the savings of individuals and contribute directly to the economic development of a country.

On the other hand, Ordoñez et al. (2020), state that the financial system is formed by savings and credit cooperatives, mutual societies and other financial institutions legally formed in the territory, which capture savings from associates and place these funds through credits in order to generate financial returns that contribute to financial intermediation institutions and customers.

The financial system has great importance in the economy of a nation, since it is made up of entities such as savings and credit cooperatives, which seek to properly manage the savings of the members and contribute directly to the economic development of the nation and its population.

According to Ortega et al. (2017), savings and credit cooperatives are one of the main financial institutions that make up the financial system are regulated by the Superintendency of Banks and by the Superintendency of Popular and Solidarity Economy (SEPS) and apply the Organic Law of the Popular and Solidarity Economy (LOEPS) are under the supervision of the Superintendency of Banks (SB), and the National Directorate of Cooperatives (DNC) and the Ministry of Economic and Social Inclusion (MIES).

However, Arias et al. (2022), points out that cooperativism contributes to the reduction of exclusion, inequality and poverty, since it generates economic opportunities for the associated people; It empowers them to defend their interests and at the same time, provide them with security, transforming individual risks into collective ones.

On the other hand, Gómez et al. (2018), state that the cooperative system is an important factor for economic development and the promotion of the integration of the population in Ecuador. In this way, the cooperative system emerged as an initiative that encompassed several social sectors.

The cooperative system in the Ecuadorian economy is an important issue throughout the country, since the entities that integrate it offer products and services to the population, in order to contribute to the needs, desires and projections of each of the partners. The incorporation into society of vulnerable groups that unfortunately are outside this system, boosts the economy and has a great social impact in Ecuador.

The quantitative analysis of the contribution and evolution of the cooperative system in the Ecuadorian economy is an instrument for the discernment of what has arisen with respect to the country's economy in recent years. From the perspective of Sánchez (2019) quantitative analysis is responsible for the measurement of phenomena to which a number can be assigned, and through the use of statistical techniques analyze the collected data. For this reason, the quantitative analysis of the evolution and contribution of the cooperative system in the Ecuadorian economy focuses on obtaining data related to the evolution of the cooperative system in Ecuador for later analysis.

In this sense, it can be asserted that the quantitative analysis of the evolution and contribution of the cooperative system in the Ecuadorian economy aims to analyze how the financial system of the popular and solidarity economy (SFEPS), contributes to the development of the economy in Ecuador. According to Arispe et al. (2020), quantitative analysis is interested in the measurement and quantification of the evolution of the cooperative system, allowing through measurement to obtain trends in the Ecuadorian economy.

On the other hand, statistics and data mining are used as tools that allow the identification of novel information available in historical databases. The aforementioned techniques help to analyze the data obtained in relation to the study variables. For Vallejo et al. (2018), data mining is aimed at taking advantage of the enormous amount of data stored to carry out analysis procedures about that data, as well as discovering patterns and trends ordering the information obtained in a sequential and understandable way for later use.

In the field of the cooperative system, the aforementioned tools are applied to the study of the evolution and contribution in the Ecuadorian economy. From the perspective of Menéndez et al. (2022), data mining is a field of statistics that, through some techniques, extracts information from a database to generate knowledge, therefore, this technique implies practical learning, where it seeks to find and describe structural patterns of certain data. On the other hand, Carriel and Valencia (2017) indicate that statistical analysis is a tool that favors the capture, processing and interpretation of the information generated in the research carried out.

In short, the cooperative system is necessary for the Ecuadorian economy since the financial institutions that integrate it are references for economic development and the promotion of social integration, in addition to forging economic opportunities for the associated people. Credit unions

provide access to capital to entrepreneurs who might otherwise struggle to obtain financing through traditional sources, such as commercial banks. These cooperatives typically have more flexible membership requirements and streamlined application processes, making it easier for entrepreneurs to obtain the funds needed to start or expand their businesses (Arias et al., 2022).

In view of the above, this document aimed to analyze the contribution and evolution of the cooperative system in the Ecuadorian economy, based on the results obtained from the financial management of savings and credit cooperatives, mutual societies and others, considered as private banking.

## **Methodology**

The data related to the financial system of the popular and solidarity economy (SFEPS) were extracted from the database of the Superintendence of Popular and Solidarity Economy (SEPS), constituted by savings and credit cooperatives (COAC), mutual societies and communal savings banks considered banks from 1st to 5th floor and that are under its regulation, control and surveillance. to know its evolution and growth, at the service of the microfinance sector, through microcredits and entrepreneurship credits (productive) during the period 2018-2022, within the framework of the research work entitled "Contribution and evolution of the system of the popular and solidarity economy: Case Ecuador" which was financed with the researcher's own resources.

### ***Definition of research protocols and techniques***

The research was quantitative, numerical data were collected on the evolution of financial operations, regarding deposits and placements that were made in savings and credit cooperatives (COAC), mutual society members and communal savings banks during the period 2018-2022. For interpretation and identification purposes, the following coding was used: Superintendence of Popular and Solidarity Economy (SEPS), Financial System of the Popular and Solidarity Economy (SFEPS), Savings and Credit Cooperatives (COAC).

### ***Population and/or sample size***

The population is constituted by all the points of attention of the EPS system, considering that all of them presented information on their operations of deposits, credit applications, deposits, placements and credit cards granted to their partners or clients during the period 2018-2022.

### ***Quantitative and statistical analysis of information***

For the analysis of the information, IBM SPSS and Microsoft Excel software were used, which allowed to classify, organize and statistically process the information obtained from the database of the SEPS website.

The data analysis was carried out by means of descriptive statistics, using measures of central tendency mainly the average, since it allows to analyze the behavior of the institutions that are part of the EPS system, the results obtained were presented in tables and graphs for the respective

analysis and interpretation.

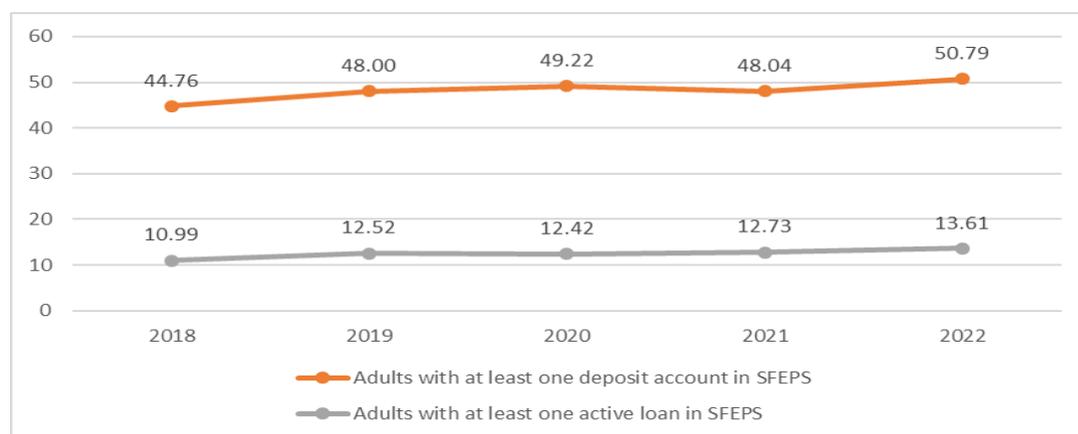
## Results and Discussion

**Table 1** EPS Service Points

Year	Number of EPS service points per 10,000 adults	Percentage of cantons with at least 1 EPS service point	Percentage of population living in cantons with at least 1 EPS service point
2018	2,52	91,03	97,49
2019	3,05	93,67	97,89
2020	3,24	94,12	97,92
2021	3,65	95,02	98,70
2022	4,49	95,48	98,88

Note: Prepared based on SEPS data (2023)

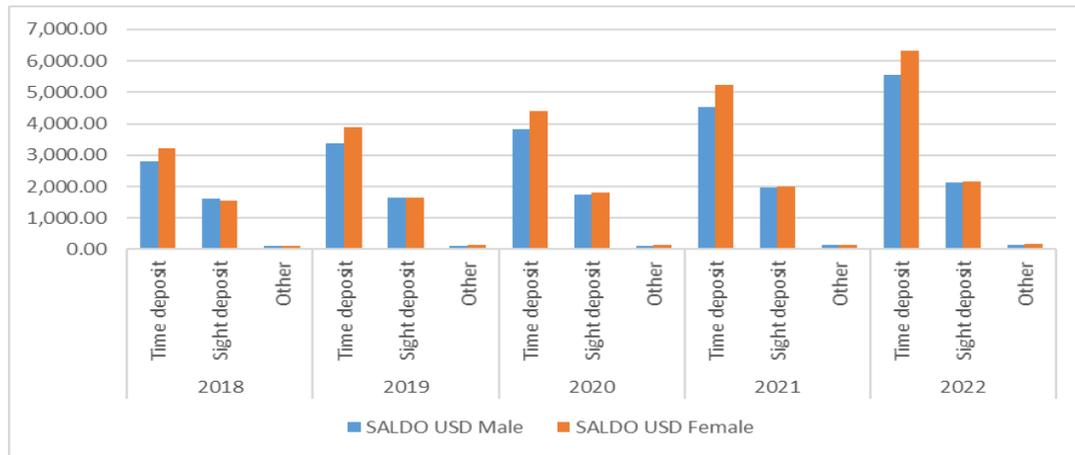
The points of attention of the EPS during the periods 2018-2022 have increased steadily, because for every 10,000 adults, in 2018 on average there were 2.52 points of attention of the EPS, increasing by 78.17%, since for 2022 the average of points of attention is 4.49. In accordance with what has been said, currently in 95.48% of cantons there is at least 1 point of attention, reaching 98.88% of the population living in these cantons, it must be considered that the action of the financial system of the popular and solidarity economy (SFEPS) is directed towards the rural population in a greater proportion than private banking (Malla, 2021), as well as that its financial services and products have come to serve the most vulnerable sectors and far from populated areas, thus contributing to strengthening their economy and daily livelihood through the financing of new ventures (Arias et al., 2022); in this way, the SFEPS highlights its role of economic and social inclusion, and its distributive and redistributive nature of resources.



**Figure 1** Evolution of SFPS Usage (expressed in percentages)

Note. Prepared based on SFPS financial information (2023)

Figure 1, shows a trend of increase in the use of the financial system of the popular and solidarity economy (SFEPS) by adults in Ecuador, a sustained growth can be seen during the period 2018-2022 study period; however, between 2020 and 2021 there was a decrease in the average number of deposits, the explanation for this financial phenomenon would be due to the paralysis of finances and the economy in general worldwide due to the appearance of the Covid 19 pandemic (Paula & Olives, 2022), The mass vaccination programs have a positive impact on the stabilization of the markets that the following year was surpassed, reaching the highest average of the last 5 periods, which could be exceeded in 2023, since during its first quarter, on average it already reached 49.32%. Of the average of adults who have a deposit account in the SFEPS, there is a constant increase in those who have a current credit, which reached its highest level in 2022 (13.61%), which like deposits, could be exceeded in 2023.



**Figure 2** Evolution of deposit types (expressed in millions of dollars)

Note: Prepared based on SFPS financial information (2023)

According to the type of deposit, during the periods 2018-2022 the largest amount is concentrated in fixed-term deposits, followed by demand deposits, with deposits made by women being the values most received by SFEPS entities and with an upward trend progressively year by year. This behavior may be due to the fact that culturally women as responsible for the household and their finances, are more thrifty and better manage their expenses and therefore those of the home. The COACs of the SFPS represent 30.71% of the market share and deposits in fixed-term deposits, which is a consequence of the confidence shown by its partners and clients (Ortega et al., 2019). It is worth mentioning that the savings and credit cooperatives COAC of the SFEPS represent 12.85% of the market share of demand deposits of the national financial system (Ortega et al., 2019).

In this way, fund-raising through deposits represents a significant source of financing for financial institutions. These deposits enable institutions to gather resources that they can later utilize to grant

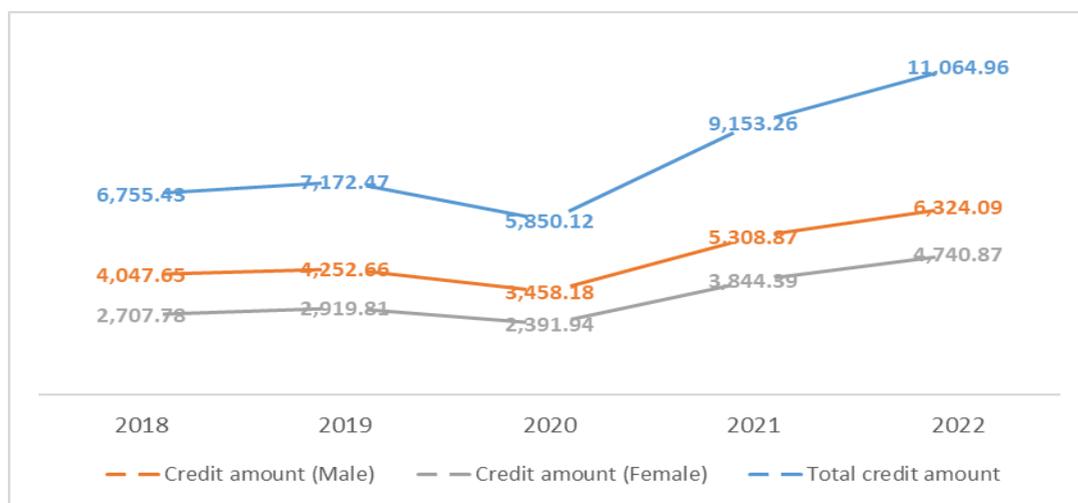
loans and credits to individuals, companies, and ventures (García et al., 2018). Thus, fund-raising through deposits is essential for the functioning and lending capacity of financial institutions.

**Table 2** Evolution of Deposit Type (expressed in millions of dollars)

Deposit type	2018	2019	2020	2021	2022
Term deposit	6.046,49	7.234,01	8.213,60	9.774,09	11.892,54
Sight deposit	3.163,91	3.306,69	3.552,54	3.971,86	4.305,65
Others	234,29	245,45	240,21	291,80	297,93
<b>Total</b>	<b>9.444,70</b>	<b>10.786,16</b>	<b>12.006,35</b>	<b>14.037,75</b>	<b>16.496,13</b>

Note: Prepared based on financial information from SFPS (2023)

According to the information presented in Table 2, deposits in the different segments of savings and investment, have had an annual increase with an always upward trend, this behavior of the partners towards this type of economic system, may be due to the confidence of the Ecuadorian financial system in general, as well as the advantages and benefits offered by the COAC to its partners at the time of receiving their deposits. as well as the ease of access and paperwork to the different lines of credit products. In the same way, it can be seen that demand deposits during 2019-2020 fell slightly, as a result of the Covid 19 pandemic, and already for the years after 2020, deposits show constant growth, which logically is due to the post-pandemic economic recovery and the generation of foreign currency by the different economic sectors of the country.



**Figure 3** Evolution of credit amount by gender (in millions of dollars)

Note: Prepared based on financial information from SFPS (2023)

The main function of the SFEPS entities is to support the socioeconomic development of the most vulnerable sectors of Ecuador through the granting of credits (Arciniegas and Pantoja, 2020), in

compliance with this function, the volume of credit has varied constantly and similarly by both genders, with men demanding a greater number of this product due to factors such as receiving higher income from the fact of occupying stellar jobs in both the public and private sectors and therefore having a greater borrowing capacity. Registering a growing trend in the periods 2021 and 2022, since in 2020 the placement was \$ 5,850.12 million dollars, reaching its peak in 2022, where \$ 11,064.96 million dollars was registered. On the other hand, it can be inferred that the active participation of women in the economic work of our country is increasing, because with their capacity they are reaching jobs, economic and political status almost at the same time as men and therefore they are very attractive individually speaking for financial institutions in general and sample of that, is that by 2022, they represent 48.84% of the placement of credits nationwide.

On the other hand, the results show that the peak of loan placement was recorded in 2022, during which \$11,064.96 million was disbursed, with a total of 2,124,681 loan transactions, with men being the majority demanders of this product. These results demonstrate the commitment of the SFPS in providing a higher level of credit in its various modalities compared to private banking (Malla, 2021), with favorable outcomes that foster the development of entrepreneurs and support solid companies, thereby influencing the increase of social and macroeconomic indicators (León et al., 2023). Furthermore, the diverse support mechanisms for the SFPS have significantly reduced its vulnerability, turning it into an economic catalyst (Mendoza et al., 2021).

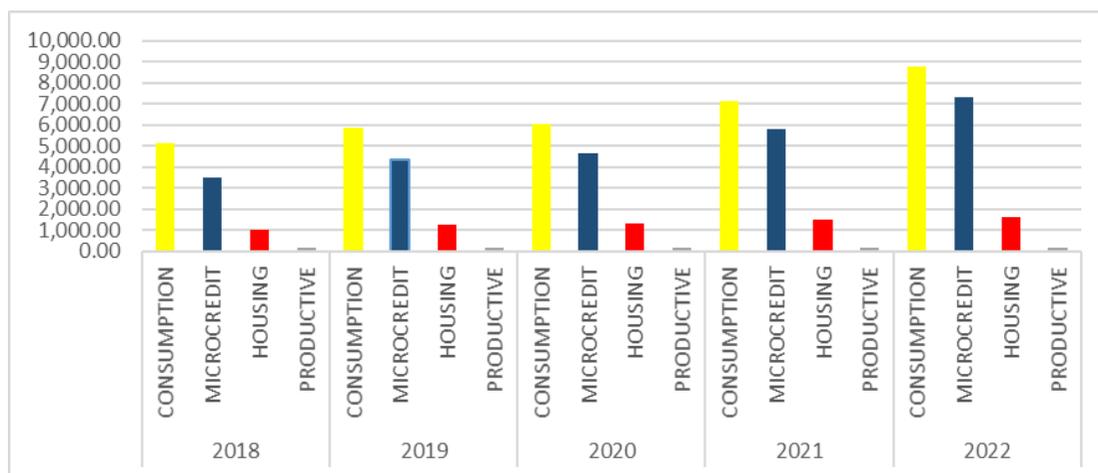


Figure 4 Evolution of Loan Amount by Type (in millions of dollars)

Note: Prepared based on financial information from SFEPS (2023)

Most of the volume of credit was destined to consumption, which agrees with the study carried out by Delgado et al. (2021), who asserts that 42% of credits were destined to the consumption-non-productive sector; In second place, the placement of microcredit is located. These results are similar to those obtained by Arciniegas and Pantoja (2020), which indicate that microcredits and

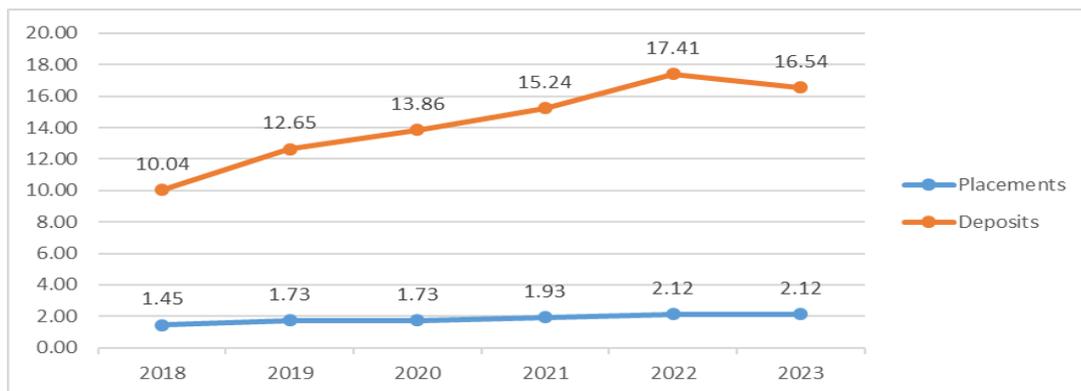
consumer credits are the ones with the highest granting by savings and credit cooperatives, this is because the members of the cooperatives when opting for a loan, are inclined towards microcredits and consumer credits, which reflects their intention to undertake or strengthen various economic activities.

In this context, Bombón and Pacheco (2021) ensure that through the credits granted, entrepreneurship and investment are stimulated, since credit placements offer financing to entrepreneurs, companies and investment projects. This stimulates economic activity by enabling the start of new businesses, the expansion of existing companies and the implementation of infrastructure projects. Access to credit facilitates the acquisition of productive assets, the hiring of personnel and the development of innovations, thus boosting economic growth.

In third place is the loans granted for housing and in fourth place the productive credit. In coherence, with the study carried out by Elizalde et al. (2021), it is shown that on average 37% of the placement of credits is represented by microcredits, 10% are destined for housing, and finally 3% for the productive sector.

On the other hand, the majority of credit operations correspond to men, which is consistent with the results presented by Elizalde et al. (2021); In relation to the age range, the balance of the credit portfolio is concentrated in subjects between 30 and 39 years old during the periods 2018-2022.

Regarding the type of credit granted, it was determined that microloans and consumer loans have the highest disbursement. Microcredit has proven to have a significant contribution to the growth of the economy in various ways. On one hand, it fosters entrepreneurship by providing initial capital to low-income entrepreneurs to start small businesses (Carvajal & Espinoza, 2020). These loans enable them to acquire tools, inputs, and assets necessary to establish and grow their ventures (Zambrano & Gómez, 2020). By promoting entrepreneurial activity, microcredit helps create employment, generate income, and strengthen the economic foundation of communities.



**Figure 5** Evolution of credit amount by type (in millions of dollars)

Note. Developed based on financial information from SFPS (2023)

The behavior of the volume of credit (placements) in number of operations shows a growing trend during the periods 2018-2022, reaching 2,124.681 credit operations in the last period. Meanwhile, the operations registered for deposits reached 10,038.283 in 2018, showing a constant increase, reflecting an increase of 73% until 2022. This is explained coherently with the very meaning of your business which is to capture savings and place credits.

## Conclusions

The results obtained demonstrate a growing trend during the periods 2018-2022, both in fund-raising and loan placements by the SFPS, which are of great importance for the economic and social development of Ecuador. It should be noted that cooperatives account for approximately one-third of the financial intermediation activity in the private national financial system, representing 29.6% of fund-raising and 30.9% of loan placements. The volume of deposit deposits during the periods 2018-2022 shows constant variations with an increasing trend. The demand deposit is the one that represents the majority of deposit deposits, with women who mostly use this product. In general, it should be considered that the deposits are of great importance for the institutions of the SFEPS, due to several key factors, such as the financing of activities and operations, since through the financial resources captured they can comply with the execution of the same. These funds raised through deposits of partners and customers allow the COACs to offer financial services, such as loans, savings accounts, credit cards, among others. Thus, catchments are essential for SFEPS operation and viability. Similarly to the deposits, the volume of credit placements shows a growing trend, with men who mostly demand this product, reaching its peak in 2022, where \$ 11,064.96 million dollars was registered. The importance of placements lies in the fact that SFEPS entities help their members finance business projects, acquire necessary goods or services, invest in education or housing, among others. This shows the great contribution that cooperatives, mutualists and communal savings banks (considered as banks of floors 1 to 5), have been making in the socioeconomic development of the most vulnerable sectors of Ecuador, through the promotion of economic activity, encouraging entrepreneurship and generating employment in the community. The most requested types of credit are: consumption and microcredits, which reflects the intention of the partners to undertake and strengthen various economic activities. It is worth mentioning that the balance of the credit portfolio is concentrated in subjects between 30 and 39 years old during the periods 2018-2022. The SFEPS for the year 2022 has at least one point of attention of the EPS, reaching 98.88% of the population, composed mainly of rurality, which means greater access and inclusion to savings and credit products to populations far from the city.

## References

Arciniegas, O., & Pantoja, M. (2020). Análisis de la situación crediticia en las Cooperativas de Ahorro y Crédito de Imbabura (Ecuador). *Revista Espacios*, 41(27), 30-39. Obtenido de <https://www.revistaespacios.com/a20v41n27/a20v41n27p04.pdf>

- Arias, A., Sigüenza, S., & Pinos, L. (2022). Cooperativismo y emprendimiento social: alternativas para el bien común. *MASKANA*, 13(1), 43-51. Obtenido de <https://publicaciones.ucuenca.edu.ec/ojs/index.php/maskana/article/view/4128/3021>
- Arispe, C. (2020). *La investigación científica*. Universidad Internacional del Ecuador. Obtenido de <https://repositorio.uide.edu.ec/bitstream/37000/4310/1/LA%20INVESTIGACI%C3%93N%20CIENT%C3%8DFICA.pdf>
- Barrionuevo, J., & Cárdenas, K. (2022). La economía popular y solidaria como régimen de gestión en el turismo comunitario. *Universidad Y Sociedad*, 14(2), 546-555. Obtenido de <https://rus.ucf.edu.cu/index.php/rus/article/view/2826>
- Battisti, L., Marcuello, C., & Messias, J. (2020). Las perspectivas Latinoamericana y Europea de la Economía Solidaria. *REVESCO. Revista de Estudios Cooperativos*, 134, 1-10. doi:<https://dx.doi.org/10.5209/REVE.69171>
- Bombón, D., & Pacheco, F. (2021). Impacto económico de las cooperativas de ahorro y crédito de tipo cerrada en los empleados de instituciones y empresas públicas y privadas. *Boletín de Coyuntura*, 5-10. Obtenido de <https://revistas.uta.edu.ec/erevista/index.php/bcoyu/article/view/1064/973>
- Bravo, D., Zea, C., Franco, J., & Mero, T. (2019). Economía popular solidaria y su efecto en el desarrollo económico comunal. *CIENCLAMATRIA. Revista Interdisciplinaria de Humanidades, Educación, Ciencia y Tecnología*, 6(10). doi:<https://doi.org/10.35381/cm.v6i10.137>
- Carabajo, R., & Rosales, M. (2021). La economía popular y solidaria. Una alternativa de desarrollo económico local en el caso del cantón Cuenca. *Ciencia Digital*, 4(1.2), 79-102. doi:<https://doi.org/10.33262/concienciadigital.v4i1.2.1580>
- Cardoso, G. (2019). La economía popular y solidaria en Ecuador: fusión y liquidación de las cooperativas. *Estudios de la Gestión: revista internacional de administración*(6), 189-202. Obtenido de <https://revistas.uasb.edu.ec/index.php/eg/article/view/1307/1210>
- Carriel, F., & Valencia, G. (2017). El análisis estadístico como herramienta que favorece la formación cinetífica y profesional del estudiantado universitario. *Revista de la Facultad de Cultura Física de la Universidad de Granma*, 14(46), ISSN: 1817-9088. Obtenido de <https://dialnet.unirioja.es/servlet/articulo?codigo=6220152>
- Carvajal, A., & Espinoza, L. (2020). Microcréditos ecuatorianos: incentivo a la reducción de la pobreza y mejora del ingreso familiar. *Revista Vínculos ESPE*, 5(3), 51-65. doi:[10.24133/vinculosespe.v5i3.1671](https://doi.org/10.24133/vinculosespe.v5i3.1671)
- Cuenca, M., Calle, R., & Jaramillo, C. (2022). El Sistema Financiero a través de la Tecnología. *FIPCAEC*, 7(2), 134-150. Obtenido de <https://fipcaec.com/index.php/fipcaec/article/view/563/998>
- Delgado, M., Mendoza, W., Quinche, A., & Ponce, M. (2021). Impacto de la economía popular y solidaria en el sector cooperativo ecuatoriano. *RECIMUNDO*, 5(2), 426-439. doi:[10.26820/recimundo/5.\(2\).abril.2021.426-439](https://doi.org/10.26820/recimundo/5.(2).abril.2021.426-439)

- Elizalde, L., Morales, A., & Chamba, L. (2021). Análisis del sector financiero popular y solidario del Ecuador: estadísticas principales. *FIPCAEC*, 6(1), 873-886.  
doi:<https://doi.org/10.23857/fipcaec.v6i1.378>
- García, K., Prado, E., Salazar, R., & Mendoza, J. (2018). Cooperativas de Ahorro y Crédito del Ecuador y su incidencia en la conformación del Capital Social (2012-2016). *Espacios*, 39(28). Obtenido de <https://www.revistaespacios.com/a18v39n28/a18v39n28p32.pdf>
- Gómez, S., Hinojosa, G., & Leyva, G. (2018). Avances y experiencias del cooperativismo como tendencia: El caso de Ecuador. *Cofin Habana*, 12(2), 254-267. Obtenido de [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S2073-60612018000200018&lng=es&tlng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S2073-60612018000200018&lng=es&tlng=es).
- León, L., Bustos, G., & Pardo, F. (2023). Evolución de la Economía Popular y Solidaria y su impacto en el desarrollo social-productivo del Ecuador, 2008-2021. *Revista Ciencias Pedagógicas e Innovación*, 10(2), 119-126. Obtenido de <https://incyt.upse.edu.ec/pedagogia/revistas/index.php/rcpi/article/view/625/578>
- Malla, F. (2021). La economía popular y solidaria y su aporte al crecimiento económico y desarrollo humano en Ecuador. *Sur Academia*, 15(8), 63-82.  
doi:<https://doi.org/10.54753/suracademia.v8i15.850>
- Mendoza, J., Abad, M., & García, L. (2021). La economía popular y solidaria: Un medio para reducir la vulnerabilidad socioeconómica. *Revista Multi-Ensayos*, 7(4), 15-27.  
doi:<https://doi.org/10.5377/multiensayos.v7i14.12002>
- Menéndez, V., Guerrero, J., Castellanos, M., & Cervera, J. (2022). Uso de la minería de datos para la caracterización de investigadores y cuerpos académicos. *Revista Iberoamericana para la Investigación y el Desarrollo Educativo*, 12(24), e327. Obtenido de <https://www.scielo.org.mx/pdf/ride/v12n24/2007-7467-ride-12-24-e016.pdf>
- Morales, A. (2018). El sistema cooperativo de ahorro y crédito del Ecuador a través de la historia. *Revista Observatorio de la Economía Latinoamericana*, ISSN: 1696-8352, 2-7. Obtenido de <https://www.eumed.net/rev/oel/2018/07/sistema-cooperativo-ecuador.html>
- Ordóñez, E., Narváez, C., & Erazo, J. (2020). El sistema financiero en Ecuador. Herramientas innovadoras y nuevos modelos de negocio. *Revista Arbitrada Interdisciplinaria Koinonía*, 5(10), 194-216. Obtenido de <https://www.redalyc.org/journal/5768/576869215008/576869215008.pdf>
- Ortega, J., Borja, F., Aguilar, L., & Moreno, W. (2019). Sistema Financiero Popular y Solidario y su evolución desde la implementación de la nueva Ley Orgánica de Economía Popular y Solidaria en el Ecuador. *Cooperativismo & Desarrollo*, 25(112).  
doi:<https://doi.org/10.16925/co.v25i112.2036>
- Ortega, Jaime, Borja, F., Aguilar, I., & Montalván, R. (2017). Evolución de las Cooperativas de Ahorro y Crédito en Ecuador, 2000-2015. *Semestre Económico*, 20(45), 187-216.
- Paula, G., & Olives, J. (2022). Impacto financiero del COVID 19 en las instituciones de economía popular y solidaria del Ecuador, año 2021. *Visionario Digital*, 6(3).

doi:<https://doi.org/10.33262/visionariodigital.v6i3.2197>

Pérez, E., & Titelman, D. (2018). *La inclusión financiera para la inserción productiva y el papel de la banca de desarrollo*. Santiago: Naciones Unidas.

Sánchez, F. (2019). Fundamentos epistémicos de la investigación cualitativa y cuantitativa: consensos y disensos. *Revista Digital de Investigación en Docencia Universitaria*, 13(1), 102-122. Obtenido de [http://www.scielo.org.pe/scielo.php?script=sci\\_arttext&pid=S2223-25162019000100008](http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S2223-25162019000100008)

Vallejo, H., Guevara, E., & Medina, S. (2018). Minería de datos. *Revista Científica Mundo de la Investigación y el Conocimiento*, 2(1), 339-349. Obtenido de <https://dialnet.unirioja.es/servlet/articulo?codigo=6732870>

Zambrano, Y., & Gómez, S. (2020). Activos productivos y la generación de trabajo autónomo en Rocafuerte, Manabí, Ecuador. *Polo del Conocimiento*, 5(06), 3-39. doi:10.23857/pc.v5i6.1464