

ORIGINAL
Research article

Effects of Financial Education Training on the economic wellbeing of social business*

Efectos de la Formación en Educación Financiera en el bienestar económico de las empresas sociales

Received: May 11, 2022 - Evaluated: August 16, 2022 - Accepted: November 20, 2022

Yadira Zulith Flores-Anaya **

ORCID: <https://orcid.org/0000-0002-7958-3354>

Karina Isabel Salinas-Solís ***

ORCID: <https://orcid.org/0000-0002-5958-5053>

Deisy Milena Sorzano-Rodríguez ****

ORCID: <https://orcid.org/0000-0002-4862-1442>

To cite this Article

Flores-Anaya, Y. Z., Salinas-Solís, K. I., & Sorzano-Rodríguez, D. M. (2023). Effects of Financial Education Training on the economic wellbeing of social business. *Revista Gestión y Desarrollo Libre*, 8(15), 1-14. <https://doi.org/10.18041/2539-3669/gestionlibre.15.2023.10348>

Editor: PhD Rolando Eslava-Zapata

Abstract

Social microenterprises play an important role in the economy, as they are recognized as the key engine of economic growth in developing countries, however, the lack of financing remains one of their main obstacles. The objective of this paper is to analyze the effect of financial education given to microentrepreneurs on economic profitability, as well as other specific characteristics of microentrepreneurs and their businesses. Data from financial logs applied to social microenterprises in the city of Tijuana, Baja California, Mexico are used; in which the sales, costs and operating expenses of the business are recorded daily for four weeks. Through a linear regression analysis and the Wilcoxon Signed Ranks Test method, it is found that financial education training has a positive effect on the net profits of the business; addition to the positive increase in their sales by transitioning to using technology to advertise or sell their

* Original article. Research and innovation article. Research article.

** Economist and financier by the Technological Institute of Sonora, México. Master in Economic Sciences by the University Autonomous of Baja California, México. PhD in Economic Sciences by University Autonomous of Baja California, México. Email: zulith.flores@uabc.edu.mx

*** Economist by the University Autonomous of Baja California, México. Master in Economic Sciences by the University Autonomous of Baja California, México. PhD in Economic Sciences by University Autonomous of Baja California, México. PhD Economy and Business by University of Castilla La-Mancha, Spain. Email: karina.salinas@uabc.edu.mx

**** Economist by the University Santo Tomás, Colombia. Master in Social Sciences applied to regional studies by the University Quintana Roo, Mexico. PhD in Global Development Studies by the University Autonomous of Baja California, Mexico. Professor and researcher at the Centro de Enseñanza Técnica y Superior (CETYS Universidad), Mexico. Email: milena.sorzano@cetys.mx

products; the use of credit ends up making visible that in many cases it harms the business because it cannot be used properly.

Keywords: Financial Education, Social Business, Financial Inclusion, Poverty

Resumen

Las microempresas sociales juegan un papel importante en la economía, ya que son reconocidas como el motor clave del crecimiento económico en los países en desarrollo, sin embargo, la falta de financiamiento sigue siendo uno de sus principales obstáculos. El objetivo de este trabajo es analizar el efecto de la educación financiera impartida a los microempresarios sobre la rentabilidad económica, así como otras características específicas de los microempresarios y sus negocios. Se utilizan datos de bitácoras financieras aplicadas a microempresas sociales en la ciudad de Tijuana, Baja California, México; en el cual se registran diariamente durante cuatro semanas las ventas, costos y gastos de operación del negocio. Mediante un análisis de regresión lineal y el método de Prueba de Rangos con Signos de Wilcoxon, se encuentra que la formación en educación financiera tiene un efecto positivo en las utilidades netas del negocio; además del aumento positivo en sus ventas al hacer la transición al uso de tecnología para publicitar o vender sus productos; el uso del crédito acaba por visibilizar que en muchos casos perjudica al negocio porque no se puede utilizar adecuadamente.

Palabras Clave: Educación Financiera, Empresa Social, Inclusión Financiera, Pobreza

SUMMARY

INTRODUCTION. – RESOLUTION SCHEME. – I. Research problem. - II. Methodologies. – III. Writing plan. – 1. Financial education for financial inclusion in Mexico. – 2. Socio-economic wellbeing of microenterprises. – 3. Financial education and social business post COVID-19 perspective. - IV. Research results. - CONCLUSIONS. – REFERENCES.

Introduction

Social microenterprises play an important role in the economy because they are recognized as a key driver of economic growth in developing countries; however, they often face severe financing obstacles because of the lack of guarantees (Xia & Gan, 2020). Generally, its owners come from families living in poverty or economic vulnerability; in other words, they respond to the characteristics of entrepreneurship by necessity (Osorio, Mungaray & Ramírez, 2021). The COVID-19 crisis has increased the dependence of social microentrepreneurships on bank financing; this can generate negative impacts on the financial health of the microenterprises since there is a risk that the inability to raise their financial recurses at short notice can turn about a liquidity shortage into a solvency problem (Gourinchas, Kalemli-Özcan, Penciakova, & Sander, 2020).

Mexico is one of the developing countries that has worked the most to liberalize its financial sector; however, the needed inclusion levels have yet to be reached. According to the National Institute of Statistics and Geography (INEGI), in 2018, only 21.00% of companies in Mexico had some financing through the financial system. Of all those companies, only 11.00% corresponded to microenterprises, even though these represent 95.00% of the total business base in the country and cover 40,00% of employment (INEGI, 2018).

Theory shows that access to the financial system can improve people's well-being, helping to reduce poverty and its effects on business conditions. That is why, in Mexico, the promotion of microcredits has been prioritized, as well as financial education to stimulate financial

inclusion, that is, the access, use, and quality of financial services offered to people who have been excluded from the traditional financial market, including social microenterprises. For this reason, an alternative to increasing the impacts of financial inclusion has been the promotion of the creation of training courses that allow enriching the knowledge and practices of microentrepreneurs to make better decisions when choosing their necessary inputs, as well as to increase profits, sales, and productivity of the business (CONEVAL, 2019).

The population in poverty that does not have access to the formal financial system, or that at the time of use some credit, misuses it because of their lack of financial education, often end up incurring higher costs (Banerjee, Duflo, Glennerster, & Kinnan, 2015). It is important to note that while improving the conditions of the most vulnerable population is possible, financial inclusion is not only important and necessary for this segment of the population.

Financial education can positively affect the behavior of the population with low levels of schooling and income, who need formal instruction to learn basic concepts in the short term. Such training is relevant because, eventually, they are less susceptible to financial learning from experience (Wagner, 2015). Knowing how financial products work generates more certainty about the costs they will incur if they decide to take any credit, as well as their rights and those institutions to which they could appeal in case of any mishap with the acquired financial product.

The financial health of a microenterprise, even if it is profitable, is also linked to the capacities it must have to manage and make decisions in the business. Financial education becomes an indispensable tool for improving entrepreneurs' and businesses' development. Therefore, it represents an alternative to improving the welfare conditions of their homes. Studies show that training in financial literacy and education improves social entrepreneurs' understanding of the profitability of their businesses, which can translate into small immediate effects on sales and profit levels, but as their preparation progresses, improving their accounting practices allows their owners to reinvest, because savings are increased (McKenzie & Woodruff, 2014).

This research aims to analyze the effect of the training provided to microentrepreneurs in financial education on the economic profitability of social business. However, there is no consensus on the component of financial education training that generates a difference in the treatment of the business result since no significant modifications have been found in the production and management decisions of the participants; it may be due to the duration and attendance of the courses, as well as the heterogeneity of the contents and the restriction to a certain population group (CONEVAL, 2019).

Resolution scheme

1. Research problem

How are the effects of Financial Education Training on the economic wellbeing of social business?

2. Methodologies

The data used in this work come from financial monitoring journals applied to social microenterprises in the city of Tijuana, Baja, California, Mexico, in which the business's sales, costs, and operating expenses are recorded daily for four weeks. Tables 1 and 2 detail the dependent and independent variables to be used. Table 1 contains the nominal cut variables used in later models, the logarithmic variation of sales ($Sales_1 - Sales_0$), the logarithmic variation in costs ($Costs_1 - Costs_0$), the logarithm of the age of the microentrepreneur, and the logarithmic variation of net profits ($profits_1 - profits_0$).

Table 1. Variables description

| VARIABLES | TYPE | DESCRIPTION |
|-----------|---------|--------------------------------------|
| Sales | nominal | logarithmic variation in sales |
| Costs | nominal | logarithmic variation in costs |
| age | nominal | age of the microentrepreneur |
| profit0 | nominal | Net profit time 0 (before treatment) |
| profit1 | nominal | Net profit time 1 (after treatment) |

Source: Own elaboration with data from ENSOBI (2022).

Table 4 shows the dichotomous variables constructed that represent the presence or absence of a specific characteristic of the microentrepreneur and their business, from the level of schooling, gender, and age to the use of different technological tools for the daily operations of their business or to promote or sell their products.

Table 2. Description of dichotomous variables

| VARIABLES | CATEGORIZATION | |
|------------|---|---|
| | 1 | 0 |
| schooling | There is no schooling or there is basic education | Has technical career, undergraduate or postgraduate |
| gender | Woman | Man |
| credit | Had some productive credit | Don't take any productive credit |
| internet | Use the internet to carry out your activities | No uses the internet to carry out its activities |
| technology | Makes use of social networks, to promote and/or sell their products | Does not use social networks, to promote and / or sell its products |
| sector | Belongs to the commercial sector | Belongs to the service sector or industry |
| Computer | Uses computer equipment to perform its activities | Does not use computer equipment to perform its activities |

Source: Own elaboration with data from ENSOBI (2022).

The training in financial education was given to a focused group of microentrepreneurs in the context of economic vulnerability who had yet to receive any financial advice; this was intended to determine more precisely the effect that these generate in the business. This training included modules on financial health (how to make better financial decisions for well-being), savings, investment, insurance, and proper use of credit.

The microentrepreneurs are part of the Research Program Assistance and Teaching to Micro and Small Enterprises (PIADMYPE), where students of the careers of Economics, International Relations, and Public Administration who perform their social service at the UABC-Yunus Center provide them with accompaniment during the 12 weeks, between August 2021 and February 2022, supporting them with the filling of their financial monitoring diaries in situ. Using the data provided by the monitoring logs reported by the microentrepreneurs, a Wilcoxon Signed Ranks Test was proposed to identify the effect of financial education training on

business stability. From the comparison of cash flows and financial indicators before and after the training.

A linear regression model (equation 1) is used to analyze the impact it has on the variation of sales of the microenterprise, variables related to the one who runs the business such as age, sex, and schooling, as well as variables related to the business in terms of costs, credits, and technologies implemented in it.

$$\Delta \ln[sales_i] = \beta_0 + \beta_1 \Delta \ln[costs] + \beta_2 \ln[age] + \beta_3 i.schooling + \beta_4 i.gender + \beta_5 i.sector + \beta_6 i.credit + \beta_7 i.technology + \beta_8 i.computer + \mu_i \quad (1)$$

Sales, costs, and age are nominal variables transformed into logarithmic data. In contrast, the others belong to variables constructed dichotomously to validate a particular attribute's existence or absence. To identify whether training in financial education influenced the economic well-being of microentrepreneurs, a Wilcoxon Signed Ranks Test was carried out because it allows contrasting the hypothesis of equality among the population medians. The net profits (sales minus costs, less operating expenses, financial expenses, and taxes) recorded in the financial logs of the microentrepreneurs during the first and last week of the program were compared since the training focused on concepts such as price and cost determination, budget, savings, investment, credit and insurance, elements, which would be expected to affect the net economic benefit of the business. The analysis included the following hypotheses:

Scenario A

$$H_0 = \text{median of un1} - \text{median of un0} = 0$$

$$H_1 = \text{median of un1} - \text{median of un0} > 0$$

Scenario B

$$H_0 = \text{median of un1} - \text{median of un0} = 0$$

$$H_1 = \text{median of un1} - \text{median of un0} < 0$$

Scenario C

$$H_0 = \text{median of un1} - \text{median of un0} = 0$$

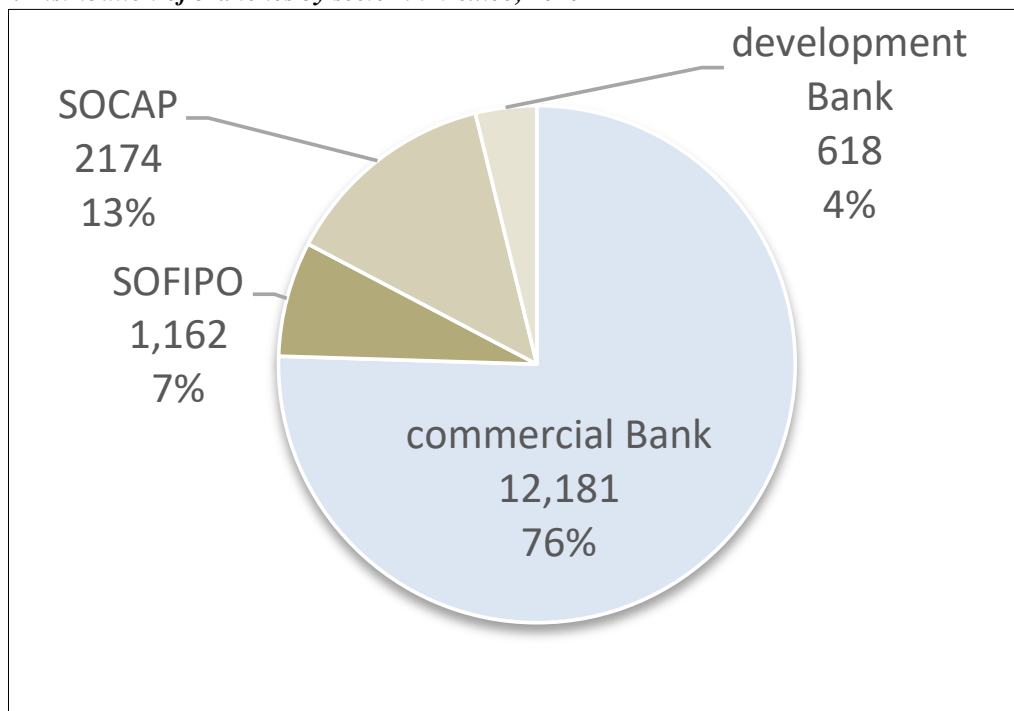
$$H_1 = \text{median of un1} - \text{median of un0} \neq 0$$

3. Writing plan

3.1 Financial education for financial inclusión in mexico

Financial exclusion generates a vicious circle that affects the well-being of the most vulnerable groups, where young people, the migrant population, those living in remote areas, and those who have had to undertake it out of necessity are more likely to fall or continue in it. (Atkinson & Messy, 2013). About the above, it can be seen in figure 1 as multiple banking concentrated in 2020 75.00% of distribution branches in the country; unfortunately, it is not a sector that prioritizes financial inclusion because its main focus is concentration and profitability (López, Ríos & Cárdenas, 2018); followed to a lesser extent by the Cooperative Savings and Loan Societies (SOCAP) with 13.00%; the Popular Financial Societies (SOFIPO by Spanish acronyms), microfinance, have a coverage of only 7.00%.

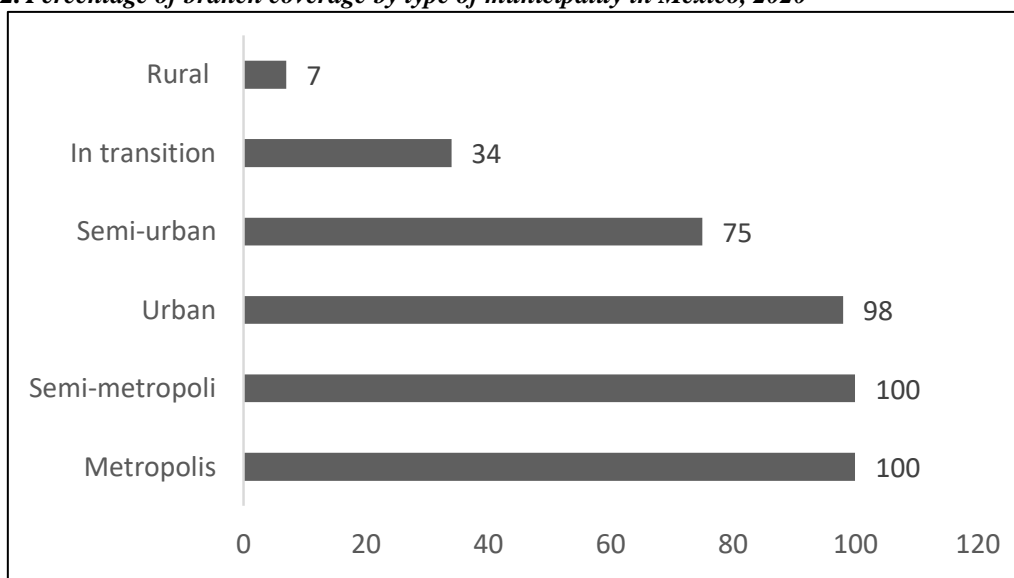
Figure 1. Distribution of branches by sector in Mexico, 2020



Source: Own elaboration with information from CNBV, 2021.

When analyzing the coverage of branches by type of municipality, it is observed in figure 2 how there is an important gap between the metropolis and rural areas, a circumstance that leads to the displacement of the population to access the products and services that the formal financial system provides. It is important to remember that most of the social enterprises in the country respond to entrepreneurship by necessity carried out by families and individuals residing in conditions of vulnerability in the country.

Figure 2. Percentage of branch coverage by type of municipality in Mexico, 2020



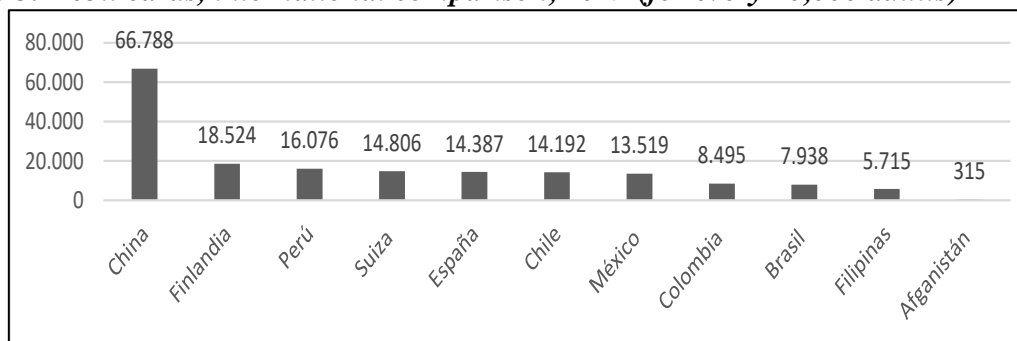
Source: CNBV (2021).

Consequently, financial inclusion is considered a priority for international politics, so global initiatives to eliminate it have been implemented and promoted. (Atkinson & Messy, 2013). In Mexico, the National Banking and Securities Commission (CNBV) is the institution in charge of ensuring the proper functioning of the financial system and promoting its healthy development to protect society. According to the Commission, financial inclusion refers to the access and use of financial services that are regulated and that promote financial education to improve the financial capacities of all segments of the population (CNBV, 2012). Through financial inclusion, greater well-being can be achieved when users know the financial products and services on the market. Although the benefits are many, only about 50.00% of people in the world have an account with a financial institution. That percentage decreases even more to 39,00% in Latin America and the Caribbean. (Raccanello & Herrera-Guzman , 2014).

Therefore, together with other financial authorities, it has issued the National Financial Inclusion Plan, which aims to generate information identifying barriers and areas of opportunity for financial inclusion. The Plan aims to generate information to achieve inclusion. So, the CNBV (2020) has proposed in one of its reports five direct impacts related to inclusion: financial resilience, that is, it allows the population to develop the capacity to face unforeseen financial events; taking advantage of opportunities provides the possibility of financial resources to build partnerships, reduce costs and increase productivity; inversión en activos, helps them to shape their patrimony for the development of activities and construction of collateral for certainty and security; social welfare, as it allows the most vulnerable population, have a decent standard of living that allows them to cover their basic needs; as well as, empowerment of women, because autonomy and economic and financial freedom are factors that give them the confidence to make decisions related to their quality of life.

In this sense, although at the global level, there is evidence of the positive effect of financial inclusion on the reduction of poverty, inequality, and the well-being of the poorest population, its levels remain low in Latin America, where the most affected group has been women (Roa, 2021). An exercise that can exemplify this is to analyze the international comparison between the number of debit cards issued between different countries, where it is possible to identify an important contrast between China, Mexico, and Afghanistan, as shown in figure 3.

Figure 3. Debit cards, international comparison, 2019 (for every 10,000 adults)



Source: CNBV (2021).

Meanwhile, in the Latin American region, 304 million women do not have access to an account, representing 56.00% of unbanked adults. Social norms have been a factor that has permeated these actions since "women participate less in the financial decisions of the household and use to a greater extent informal financial products, especially credit. In the face of an emergency or unexpected expense, women are more likely than men to ask for support

from family, or friends instead of turning to formal financial institutions" (Demirgüç-Kunt, Klapper & Singer, 2017, as cited in Roa, 2021, p. 9).

In addition, the CNBV (2020) poses three indirect impacts: economic growth, a decrease in corruption and informality, and government savings. An example of this is electronic payments, which have an indirect effect on economic growth; Moody's Analytics determined in 2013 that from 2018 to 2012, the increase in cards generated an increase of 0.8 percentage points in the private consumption of 56 countries, a factor that translates into an additional 0.40% to the Gross Domestic Product (GDP). Replacing cash with digital payments can reduce intermediaries and consequently inhibit corruption; in line with this, the Mexican Institute for Competitiveness A.C. (IMCO) showed in a 2016 report that at least 50.00% of cash payments hide illicit or informal transactions. In the same way, electronic transfers from government programs avoid corrupt practices and reduce costs; it is estimated that in 2012 alone, the transition to electronic payments of salaries, pensions, and social programs allowed the government to save 3.30% of those payments annually.

Consequently, given the implications of this problem (financial exclusion) and the benefits of its counterpart (financial inclusion), it is necessary to generate actions that favor the second and counteract the first, from the destruction of supply-side barriers such as eliminating regulatory restrictions and expanding geographical coverage; to the generation of actions that seek to support them from the demand side, such as financial education initiatives that can help the low-income population not only to access financial products and services but also to appropriate the knowledge necessary to use them for their well-being (Atkinson & Messy, 2013).

To have greater financial inclusion, The public and private intermediaries promote the bases of financial education so that more people have information and understanding about the main financial concepts. Thus, they can choose and use more efficiently those products that are of more help to them (CNBV, 2009).

3.2 Socio-economic wellbeing of microenterprises

Among the main socioeconomic factors that are associated with the lack of financial education are: gender, age, level of schooling, and aspects that are linked to culture, race, or ethnicity of belonging. (Lusardi, 2008). Likewise, in Latin America, social businesses represent a sector traditionally excluded by commercial banking. (López, Ríos, & Cárdenas, 2018).

In Latin America, the gap between demand and supply of credit for micro, small, and medium-sized enterprises (MSMEs) is equivalent to US\$1.8 billion, equivalent to 41.00% of regional GDP; approximately 47.00% of this group of companies in the formal sector do not obtain bank loans or a line of credit, and if we consider that a woman owns the company, this number rises to more than 50.00% (Herrera, 2020). In Mexico, in 2020, 487,000 loans were registered to micro, small, and medium-sized enterprises (MSMEs), which reported a delinquency rate of 5.90% (CNBV, 2020); in Latin America and the Caribbean, they represent 99.50% of all companies in the region, make up 60.00% of the employed population and are responsible for 25.00% of the regional gross domestic product (GDP). (Herra, 2020); and in Mexico, microenterprises (social businesses) make up 94.90% of the country's business structure and generate 37.00% of employment, as indicated by the last Economic Census 2019.

Social businesses have had to survive in these conditions during the COVID-19 pandemic. Table 3 shows that 67.00% of these businesses had to implement operational actions in the face of the contingency, where I had to improve their sales strategies from the generation of special

promotions (46.00%), which could mean the sacrifice of a proportion of their profits in favor of increasing or maintaining their sales; sales through Internet and digital platforms (44.00%), before a process of technological adaptation to the context they faced. Also, in the table, we can see how they increased their business activities at home (20.00%), a factor that could have influenced fixed household costs, such as electricity and the Internet. On the other hand, faced with economic contraction, they had to request emergency loans (15.00%), and some were forced to request deferrals in their payments to credits or restructuring of their debts (14.00%).

Table 3. Operational actions of microenterprises in the fase of COVID-19

| ITEM | UNITS | % |
|---|------------------|-------|
| Total | 1 728 410 | |
| Total number of companies that implemented operational actions | 1 155 828 | 67.00 |
| Home office | 234 288 | 20.00 |
| Apply for credits or emergency financing | 168 969 | 15.00 |
| Sales of goods and services over the internet and/or digital platforms | 506 902 | 44.00 |
| Special promotions (example: discounts and rebates, deferred payments, 2x1, etc) | 526 760 | 46.00 |
| Deferral of credit payments, suspension of interest payments or refinancing of debt | 165 372 | 14.00 |

Source: Own elaboration with information from INEGI. Survey on the Economic Impact Generated by COVID-19 in Companies, (ECOVID-IE, 2021).

Consequently, the contingency represented important effects on the economic well-being of social businesses. As shown in table 4, which shows how 87.00% of the businesses were affected, observed a decrease in their income, 45.00% had lower availability of cash flows, 18.00% fell into delinquency due to late payments of debts, and 9.00% had less access to financial services.

Table 4. Main effects on business in the ahead of COVID-19

| TYPE OF IMPACT | NUMBER OF SOCIAL BUSINESSES | % |
|--|-----------------------------|-------|
| Lower income | 1 289 636 | 87.00 |
| Decrease in demand and cancellation of orders | 876 074 | 59.00 |
| Lower cash Flow availability | 669 335 | 45.00 |
| Decrease in the supply of inputs, raw materials, finished goods or materials acquired for sale | 510 999 | 35.00 |
| Reduction of staff | 311 705 | 21.00 |
| Increase in delays in the payment of debts to the company by customers and buyers | 266 167 | 18.00 |
| Reduction of the total amount of remuneration and/or benefits of staff | 229 444 | 15.00 |
| Reduced Access to financial services | 138 061 | 9.00 |

Source: Own elaboration with information from INEGI. Survey on the Economic Impact Generated by Fuente COVID-19 in Companies, (ECOVID-IE), 2021.

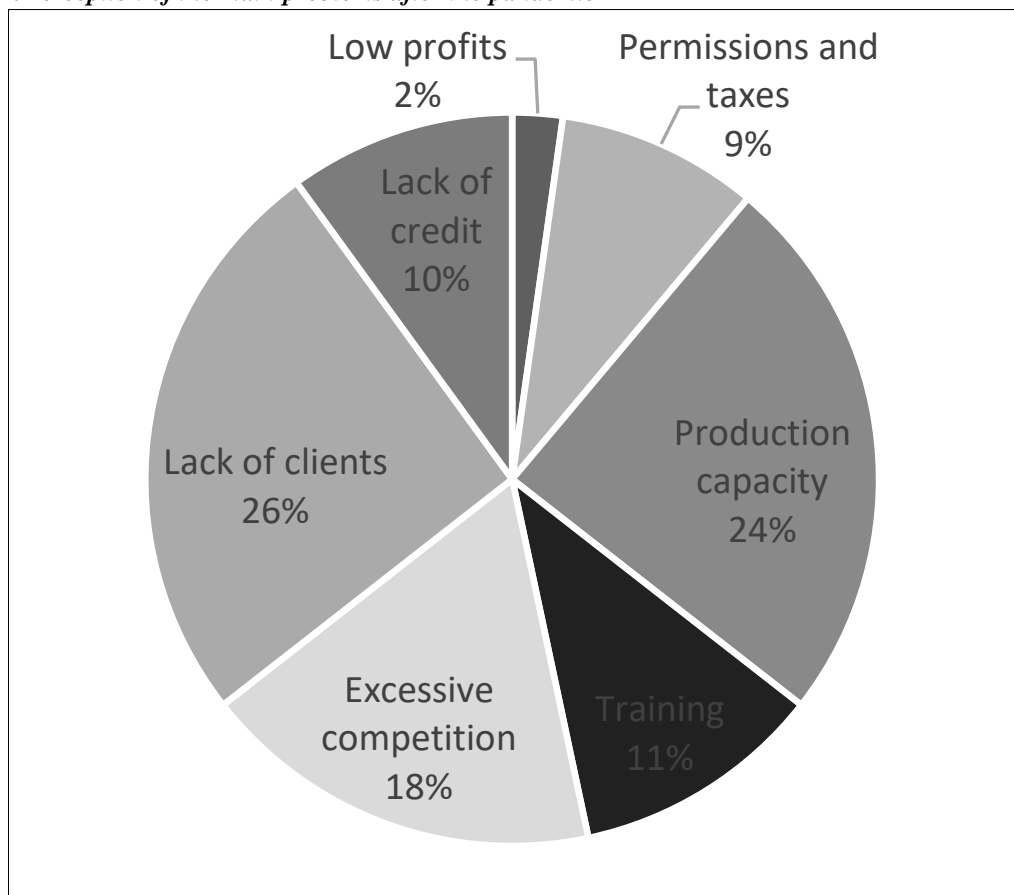
3.3 Financial education and social business post COVID-19 perspective

The COVID-19 pandemic severely impacted the economy and society worldwide, although many developed economies have managed to control the effects and re-emerge at levels of growth very close to those they registered before the pandemic; Latin America and the Caribbean are not part of them. ECLAC estimated that by the end of 2020, about 2.7 million companies would close, equivalent to 19.00% of the total number of companies. While in the

case of microenterprises, the picture was around 21.00%; this would generate the loss of more than a fifth of the jobs generated by this type of business (CEPAL, 2021).

In terms of financial inclusion, at the local level, in 2021, a survey on the impact of COVID-19 on social microenterprises was carried out by the UABC-Yunus Center for Social Business and Wellbeing in Tijuana, Mexico. Figure 4 shows the main problems identified by social businesses during the pandemic: 24.00% limited production capacity, 10.00% lack of credit, and 11.00% lack of training. Therefore, it is important to promote financial inclusion, from the offer of access to sources of financing and training for the correct management of prices and costs, as well as the use of financial products.

Figure 4. Perception of the main problems after the pandemic



Source: Own elaboration with data from ENSOBI (2021).

4. Research results

In 2021, a diagnostic instrument was applied to identify the pandemic effects on Tijuana microenterprises; among the main findings, it was found that 35.00% of microentrepreneurs indicated that they did not require financing, it was because they could not afford it or it was too expensive; from this, it can be inferred that this group of microenterprises, although they will need external financial support, would not be able to access it due to the financial instability of the business. Moreover, it indicates the need to know the alternatives within the financial system. In addition, it was identified that 65.00% of respondents had not taken financial adjustment measures in the context of economic vulnerability brought about by the

pandemic; in contrast, for those who did perform actions, 25.00% chose to use income from their business to face the contingency at home.

Table 5 shows the results of the different scenarios evaluated. In the first scenario, the variables that belong to the characteristics of the microentrepreneur or microentrepreneur are added; level of schooling, gender, and age. Of these, only the level of schooling is statistically significant with a positive sign, which indicates that the more schooling the microentrepreneur or microentrepreneur has, the greater their sales. The variables added in this first moment of the model do not describe very broadly the variation in sales that microenterprises have.

Table 5. Results of the regression considering Δ sales as $\ln[Y_i]$

| VARIABLES | (1) | (2) | (3) |
|----------------|----------------|----------------|----------------|
| | Δ sales | Δ sales | Δ sales |
| i.schooling | 0.597* | 0.584*** | 0.863*** |
| | (0.319) | (0.189) | (0.227) |
| i.gender | 0.0565 | 0.321* | 0.397** |
| | (0.294) | (0.176) | (0.176) |
| age | -0.768 | -0.769*** | -0.582* |
| | (0.460) | (0.275) | (0.313) |
| Δ costs | | 0.399*** | 0.345*** |
| | | (0.0611) | (0.0666) |
| i.credit | | -0.540** | -0.474** |
| | | (0.227) | (0.224) |
| i.sector | | 0.412** | 0.513** |
| | | (0.197) | (0.199) |
| i.internet | | | -0.432 |
| | | | (0.285) |
| i.technology | | | 0.613* |
| | | | (0.337) |
| i.computer | | | 0.411* |
| | | | (0.223) |
| Observations | 40 | 40 | 40 |
| R-squared | 0.114 | 0.735 | 0.770 |

Source: Own elaboration.

Standard errors are centered in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Note: i) The value of the constant is omitted to conserve space in the data report.

The second scenario shows the incorporation of business-related variables; it is shown that schooling is still significant and positive, but now gender and age are also relevant; there is a positive relationship between the variation in sales and if it is a man who runs the business. Also, the older the person is, the lower the sales. The costs are also positive, which is congruent, because when increasing sales, they must increase costs, but it is important to emphasize that the proportion in which it does so is lower.

In the third column, variables related to the use of technology to carry out business activities are added, as well as the promotion of its products, where both present positive and significant results; this is in line with the transition that social businesses had to make in the face of the COVID-19 pandemic period, as they were pushed to look for electronic alternatives to the distancing measures that had to be implemented; implying this an increase in the use of technological resources, as well as social platforms for the advertising and sale of products and services, in order to survive in the face of the limitation they faced.

The credit variable yields negative and significant values; this makes visible the gap faced by social businesses because, many times, the interests they must cover are very high, or, in the contexts of vulnerability they face, sometimes they make use of these credits to attend emergencies or for the consumption of the basic needs of the household; a factor that affects the economic performance of your business. The results obtained through the sector indicator allow us to identify how the post-COVID economic reactivation of industry and services activities has positively affected social businesses' economic well-being.

Table 6 shows the results obtained during the Wilcoxon Signed Ranks Test, in which it is possible to observe a statistically significant effect in scenarios A, the difference between the utilities after and before the training is greater than zero, and in scenario C, the difference between these utilities is different from zero. Training in financial education has a positive effect on the business's net profits.

Table 6. Wilcoxon signed ranks test results

| | | |
|------------|------------|----------------|
| Scenario A | Pr=0.0083 | H_0 rejected |
| Scenario B | Pr= 0.9968 | H_0 accepted |
| Scenario C | Pr=0.0166 | H_0 rejected |

Source: Own elaboration.

Conclusions

International research has shown the effects of the lack of financial education on the most vulnerable population, which leads to inefficient decision-making in terms of savings, debt, and investments derived from the little information they have about the financial products they have at their disposal. These elements translate into a negative impact on their economic and social well-being. In most cases, the lack of this knowledge is associated with the inefficient use of financial products offered in the formal financial sector. The need for financing or savings services increases the use of products offered in the informal financial market, which impacts personal finances and a blow to the business's finances.

This paper analyzed the impact of training in financial education on a sample of microentrepreneurs. The results found a positive impact on their profits if we contrast the moment before and after the training.

Variables that represented the absence or presence of specific characteristics of the business were analyzed, in which it was verified that gender and education continue to be determinants in the level of sales. Being a woman still represents a state of vulnerability in entrepreneurship. In terms of education, the more schooling is registered, the better the impact on sales, the latter consistent with what has been developed in a theoretical way. The use of technologies also has a positive impact on micro businesses. Because of the pandemic, many had to transition to technological tools to survive in the market. Having productive credit does not necessarily correlate positively with sales; this can be due in many cases to the poor choice of the financial product, to the high-interest rates that end up being paid, or because the money ends up being paid for the personal finances of the entrepreneur and not the business, this fact also as part of the little development in terms of financial education.

Social businesses that mostly arise as entrepreneurship out of necessity have the obstacle not only of accessing the portfolio of financial products of the formal market, but those who achieve it cannot make efficient use of the financing that is granted to them because they end up pressured to use the money in other matters outside the same business. The institutional scheme must continue to promote public policies that encourage the development of financial

education to achieve a higher level of financial inclusion. Communicated the importance of making decisions on savings and financing issues with as much knowledge as possible. In Mexico, although there have been efforts aimed at disseminating financial education, there is still much to work on; it is necessary to take actions that effectively reach the entire population, including members of vulnerable groups, so that in the short and medium term they can know the consequences of their decisions in financial matters.

References

- Atkinson, A., & Messy, F. (2013). Promoting Financial Inclusion through Financial Education: OECD/INFE Evidence, Policies and Practice. *OECD Working Papers on Finance*, (34), 1-55. <https://doi.org/10.1787/20797117>
- Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation. *American Economic Journal: Applied Economics*, 22-53. https://www.jstor.org/stable/43189512?seq=1#metadata_info_tab_contents
- CEPAL. (2021). *MIPYMES y el COVID-19*. Retrieved from MIPYMES y el COVID-19. <https://www.cepal.org/es/euromipyme/mipymes-covid-19>
- Comisión Nacional Bancaria y de Valores (CNBV). (2012). *Libro blanco de inclusión financiera*. México: Consejo Nacional de Inclusión Financiera.
- Comisión Nacional Bancaria y de Valores (CNBV). (2020). *Impactos de la inclusión financiera: ¿Cuáles son los impactos de la inclusión financiera en las personas y las empresas?* México: Consejo Nacional de Inclusión Financiera.
- Comisión Nacional Bancaria y de Valores (CNBV). (2021). *Panorama Anual de Inclusión Financiera 2021*. México: Consejo Nacional de Inclusión Financiera.
- Comisión Nacional Bancaria y de Valores. (2009). *Primer reporte de inclusión financiera*. México: Consejo Nacional de Inclusión Financiera.
- CONEVAL. (2019). *¿Qué funciona y qué no en inclusión financiera? Guías prácticas de políticas públicas*. México: CONEVAL. https://www.coneval.org.mx/Evaluacion/ESEPS/Documents/Guias_practicas/Que_funciona_Inclusion_Financiera.pdf
- Gourinchas, P., Kalemli-Özcan, S., Penciakova, V., & Sander, N. (2020). COVID-19 and SME Failures. *National Bureau of Economic Research*, 1-49. https://www.ecb.europa.eu/pub/conferences/shared/pdf/20211011_mon_pol_conf/Kalemli-OzcanSME_Failures.pdf
- Herra, D. (2020). *Desafíos y soluciones para mejorar el financiamiento a las mipymes durante la pandemia*. <https://blogs.iadb.org/innovacion/es/mejorar-el-financiamiento-a-las-mipymes-durante-la-pandemia/>

- INEGI. (2018). *Encuesta nacional de financiamiento de las empresas 2018*. México: INEGI. <https://www.inegi.org.mx/contenidos/programas/enafin/2018/doc/ENAFIN2018Pres.pdf>
- López, C., Ríos, M., & Cárdenas, L. (2018). Competencia, inclusión y desarrollo del sistema financiero en México. *Investigación Administrativa*, 47(121). <https://doi.org/10.35426/IAv47n121.01>
- Lusardi, A. (2008). *Financial literacy: an essential tool for informed consumer choice?* National Bureau of Economic Research. Working Paper 14084. <https://www.nber.org/papers/w14084>
- McKenzie, D., & Woodruff, C. (2014). What are we learning from business training and entrepreneurship evaluations around the developing world? *The World Bank Research Observer*, 29(1), 48-82. <https://doi.org/10.1093/wbro/lkt007>
- Raccanello, K., & Herrera-Guzman, E. (2014). Educación e inclusión financiera. *Revista Latinoamericana de Estudios Educativos*. XLIV (2). 119-141. <https://www.redalyc.org/articulo.oa?id=27031268005>
- Roa, J. (2021). *Normas sociales: la barrera invisible de la inclusión financiera de la mujer*. Comisión Económica para América Latina y el Caribe (CEPAL). Ciudad de México: Documentos de Proyectos.