



An entrepreneurial option to reduce the poverty index of the beneficiaries of the human development voucher in Guayaquil

Una opción de emprendimiento para reducir el índice de pobreza de los beneficiarios del bono de desarrollo humano en Guayaquil

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ABSTRACT

The main purpose of this study is to find and disseminate a business option that can benefit and help reduce poverty rates in Guayaquil, in this case we have considered the recipients of the Human Development Bonus (BDH) and who access the Human Development Credit (CDH), with the aim of integrating them into the labor force in Ecuador. In this sense, the lack of knowledge about the sicana or jiron fruit in the Costa-Manabi region has limited its use; therefore, the aim is to promote the sale of this natural product in Guayaquil to improve

health and generate income in vulnerable communities. The methodology employed includes descriptive, explanatory, analytical and qualitative research, as well as a market study focused on the production and sale of artisanal ice cream. The proposal consists of the production of handmade jiron ice cream for the beneficiaries of the CDH in Guayaquil.

RESUMEN

El propósito principal de este estudio es encontrar y divulgar una opción de negocio que pueda beneficiar y ayude a disminuir los índices de pobreza en Guayaquil, en este caso se ha considerado a los receptores del Bono de desarrollo humano (BDH) y que acceden al Crédito de Desarrollo Humano (CDH), con el objetivo de integrarlos a la fuerza laboral en Ecuador. En este sentido, La falta de conocimiento sobre la fruta sicana o jirón en la región Costa-Manabí ha limitado su uso, por lo tanto, se pretende promover la venta de este producto natural en Guayaquil para mejorar la salud y generar ingresos en comunidades vulnerables. La metodología empleada incluye investigación descriptiva, explicativa, analítica y cualitativa, así como un estudio de mercado centrado en la producción y venta de helados artesanales. La propuesta consiste en la fabricación de helados artesanales de jirón dirigidos a los beneficiarios del CDH en Guayaquil.

Keywords / Palabras clave

Jiron, ice cream, Crédito de Desarrollo Humano, entrepreneurship

Jirón, helados, Crédito de Desarrollo Humano, emprendimiento

Introduction

Today, it is imperative to explore options for economic activities that contribute to the purpose of implementing programs aimed at assisting vulnerable populations in their struggle against the scarcity of financial resources. Generally, the lack of access to knowledge and information represents a challenge that has a direct impact on the economic and social progress of a country, by restricting individuals from identifying and developing their skills and abilities to offer innovative services or products in a competitive market and enabling them to escape poverty. (Technical Secretariat of the Todo una Vida Plan, 2016)..

According to the Ecuadorian Institute of Statistics and Census INEC (Instituto Ecuatoriano de Estadísticas y Censos INEC) (2024) There has been a considerable increase in the index of Extreme Income Poverty (PEI) from 22.9% in 2016 to 26% as of January 2024, As for Extreme Poverty (EP), this also experienced an increase from 8.7% to 9.8% in the aforementioned period.

One of the primary purposes of any government administration is to reduce extreme poverty through an approach that promotes shared responsibility and the creation of opportunities for upward social mobility. One measure that supports this policy is the implementation of the Bono de Desarrollo Humano (BDH), which acts as an instrument to ensure that people in vulnerable situations have access to their basic rights, such as health care and, especially, education.

The Human Development Credit (HDC) provides BDH beneficiaries with the possibility of accessing social safety nets and establishing independent livelihoods that are tailored to the particularities of the entrepreneur and his or her environment. Improving living standards involves complying with public policies that promote general well-being. It is essential to encourage support for individuals, follow up and verify the progress of entrepreneurial projects to ensure their success. (Diaz, 2017).

The Human Development Bonus (BDH) consists of a monthly economic allowance of US\$55, subject to compliance with certain requirements established by the Vice Ministry of Insurance and Social Mobility. This benefit is granted to representatives of family groups below the poverty line defined by the Ministry of Social Development Coordination, preferably to the woman who is the head of household or spouse. Access to the voucher is determined by the results of the Social Registry. (MIES, 2024).

It should be noted that the Bono de Desarrollo Humano is a temporary support measure, the purpose of which is to encourage those who receive it to look for an alternative that will allow them to get ahead. According to the MIES (2024). the number of beneficiaries of the human development voucher at the national level is 616,126 users.

Since 2018, the application of the Variable Bonus was introduced, which complements the Human Development Bonus (BDH). This bonus is increased between \$50 and a maximum of \$150, depending on the number and age of children (Durán, 2017).

The Human Development Credit (CDH) is a type of microcredit designed for recipients of the Bono de Desarrollo Humano (BDH) who plan to start business projects that promote productive or self-employment activities. The main purpose of this program is for BDH beneficiaries to generate their own income and manage to overcome extreme poverty. (Martinez et al., 2017).

CDH offers beneficiaries of the Bono de Desarrollo Humano the option of obtaining transfer advances on the condition of an individual or group loan, under favorable conditions. The maximum loan is equivalent to 12 times the value of the monthly transfer and can cover the entire project to be financed.

All natural persons included in the database of the Human Development Voucher Program and who have production, trade or service units in operation for at least six months are eligible to apply for the human development loan. BAN Ecuador offers microcredits to beneficiaries of the human development bond to support them in the creation of their own businesses. The loans are \$600 for individual loans and \$1,200 for associative loans, with a term of 12 months for individual loans and 24 months for associative loans. The nominal interest rate is 7% per annum. (BAN, 2024).

According to Castillo et al, (2017) The lack of knowledge about different options for entrepreneurship and the inadequate management of credit reduce the opportunities for improvement for those CDH beneficiaries interested in starting a business. In addition, the low educational level and economic circumstances of this population contribute to the lack of knowledge on how to establish and manage an entrepreneurship. This has a negative impact on the development of new enterprises for this group. As a result, the need arises to explore entrepreneurial options that can be shared with BDH recipients. A proper understanding of the opportunities and available funding will facilitate addressing present impacts, such as:

- a) The credit received is not fully utilized in the business project, and the lack of understanding of market conditions has generated obstacles in the management of the business.
- b) The presence of other similar projects is increasing competition.
- c) There is a lack of communication or promotion among residents about the benefits of the Human Development Center.

According to Nuñez et al, (2023) In business, information is essential for making strategic decisions, identifying opportunities and risks, analyzing the market and the competition, among other aspects. The lack of accurate and timely information can lead to erroneous decisions that affect the profitability and viability of the business. Because of this, advanced nations invest in education and facilitate access to information in order to gain competitive advantages and opportunities. This strategy has been key to the success and economic progress of several countries, such as Japan, Germany, the United States and China, among others.

However, at the continental level, South America lacks the resources and information required to take full advantage of its abundant agricultural resources. This situation is due to a lack of understanding of the properties and management of the exotic fruits that abound in this region. An obvious example is the plant known as Sicana or Jiron. In countries such as Panama, Brazil and Peru, there is more extensive knowledge about the cultivation and use of this fruit, but not all the necessary measures have yet been implemented to fully contribute to economic development.

At the national level, Ecuador has an optimal climate and soil for the cultivation, processing and sale of Sicana or jirón. However, the lack of momentum, knowledge and application of technologies has restricted the progress of this agricultural sector, which has the potential to contribute significantly to the transformation of the country's productive structure. The innovation of this study lies in the inclusion of an exotic fruit with healing properties and versatility of applications in both cooking and aromatherapy. Its main focus is the transformation of this raw material into a final product, "Jiron ice cream", which contributes to the change in the productive structure. In addition, this approach benefits various sectors in terms of economic development.

Ice creams are characterized as food preparations that have been transformed into a solid, semi-solid or pasty state by freezing, either simultaneously or after mixing the raw materials used, maintaining an adequate degree of plasticity and freezing until the moment of sale to the consumer. To be considered ice cream, the product must contain at least 5 percent food fat, and the proteins must be exclusively of dairy origin. There are several types of ice cream according to the following:

Types of ice cream include cream ice cream, milk ice cream, water ice cream and buttery ice creams. These are classified according to their elaboration process into industrial, artisanal and soft. Handmade ice creams are distinguished by using manual methods and fresh products exclusively. They have a smaller amount of air incorporated and have an extremely creamy texture. Due to the quality and quantity of the ingredients used, as well as their small-scale production, their price is usually considerably higher than that of industrial ice cream.

There are entrepreneurs who find in the marketing of handmade ice cream their main source of income, as is the case of Ariosto Polibio Campoverde, 69 years old, who has dedicated 45 years of his life to making handmade ice cream in a wheelbarrow in Machala. This entrepreneur works from 2:00 p.m. to 6:00 p.m., and his income from sales usually ranges between \$25 and \$30 a day. In 2000, he used to get around \$50 per day, but from 2010 onwards, his income was affected by competition and mobilization difficulties (Cruz, 2017).

On the other hand, there is Don Juan Villamar, 65, who has been an ice cream vendor for more than twenty years. For him, this activity is not only his main source of income, but also a form of distraction and entertainment. Don Juan is located in Guayaquil's Parque Centenario, near the Casa de la Cultura and the park itself. To attract customers, he uses lively couplets such as, "They say I'm a little crazy, come taste de coco, no matter how many hours go by, I also have de mora!" (San Lucas, 2016).

Don Juan invests between \$15 and \$17 dollars a day in his ice cream business. According to him, these costs vary depending on the price of raw materials, especially blackberries, which can fluctuate at times. Despite this, he manages to earn around \$50 dollars a day from the sale of two baskets of coconut and one of blackberry. Her preparation process involves chopping, grating, squeezing, mixing and curdling the ingredients, which she does from Monday to Friday from 05:00 to 07:00 in the morning, and on weekends from 07:00 to 09:00 in the morning.

The shred or Sicana, a member of the cucurbitaceous plant family, is also known as musk or sicana. It is believed to be native to Brazil, although it has been cultivated in Peru and Ecuador since pre-Hispanic times and has spread throughout tropical America, being cultivated in areas near sea level in Central America, Cuba, Mexico, Brazil and Puerto Rico. (Ordoñez, 2021).

This exotic fruit thrives only in warm climates and emits an intense aroma that can be perceived from a great distance. Its flavor is sweet and pleasant, very similar to melon, and when tender, it is also used as a vegetable in the preparation of soups and stews, as a substitute for pumpkin. The jirón has significant nutritional properties, such as protein, fat, fiber, ash, calcium, phosphorus, iron, carotenes, ascorbic acid, thiamine, riboflavin and niacin, which makes it a rich and nutritious fruit for human consumption (Muñoz et al., 2023).

The business idea proposed consists of the creation and development of "Artisanal Jiron ice cream" aimed at the beneficiaries of the Human Development Credit in the city of Guayaquil. The main objective is to promote the properties and uses of the Jiron fruit by transforming it into a finished product, specifically artisanal ice cream, which will be totally organic and will promote the health of consumers.

We propose a creamy artisanal ice cream with innovative flavor and presentation, inspired by the varieties popular in the province of Manabí. This proposal seeks to take advantage of the existing demand for artisanal ice cream in the region, as well as the growing interest in organic and healthy products.

By focusing on the Jiron fruit as the main ingredient, the idea is to highlight its nutritional value and potential health benefits, which could attract a specific segment of consumers concerned about their well-being and the quality of the food they eat. In addition, the presentation of artisanal Jiron ice cream as an innovative and unique product in the market could generate interest and curiosity among consumers, which could translate into a competitive advantage in the artisanal ice cream sector.

In summary, the "Jiron Artisanal Ice Cream" business idea seeks to offer a differentiated, high quality product that satisfies the needs and preferences of health-conscious and innovative consumers in the city of Guayaquil.

The main characteristics of Jiron ice cream include a high nutritional contribution in terms of protein, calcium, iron and other nutrients. This is due to the inherent properties of the fruit, which is rich in the following nutrients per serving: Protein: 0.145 g; Fat: 0.02 g; Fiber: 1.1 g; Ash: 0.70 g; Calcium: 21.1 mg; Phosphorus: 24.5 mg; Iron: 0.33 mg. (Macias, 2022).

These values ensure significant nutritional benefits for consumers without compromising their health. The presence of these nutrients is important to promote a healthy and balanced lifestyle, especially for those seeking food choices that are both tasty and nutritious.

For the implementation of Jiron's artisanal ice cream business, we can initially consider the Guayaquil population between 15 and 24 years of age, since this demographic group tends to show greater acceptance of new ideas and products, including new ice cream flavors. However, it is important to keep in mind that ice cream is also consumed by other segments of the population, which would potentially expand the target market.

Materials and Methods

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To carry out this work, the type of research developed encompasses several approaches, including exploratory, descriptive, explanatory, analytical and qualitative research. This combination of methodologies allows us to study, define and evaluate the relevant parts of the problem previously posed, with the objective of establishing a feasible solution or proposal for the problem in question.

For the preparation of this article, an exploratory research was carried out using primary and secondary sources. In particular, recourse was made to the work of Chilan et al, (2018) which was presented as a thesis to obtain the degree of Commercial Engineering at the Faculty of Administrative Sciences of the University of Guayaquil. The topic of this research is "Entrepreneurship model for the beneficiaries of the human development credit through the elaboration of artisanal ice cream based on the jiron fruit".

The research method applied is the scientific method, which enables the development of the research in an orderly and structured manner, based on existing scientific contributions. The instruments used in the research include secondary sources, statistics and surveys.

According to Condori (2020) the population is defined as a set of elements that share certain characteristics that are the object of study. In this context, an inductive approach is used between the population and the sample, where the observed part (the sample) is representative of the whole (the population) in order to ensure the validity of the conclusions of the study.

For the elaboration of this study, we took into consideration the population used in the research of Chilan et al., (2018). According to the Ecuadorian Institute of Statistics and Census, a population of 2,671,801 inhabitants was projected for the city of Guayaquil and 4,267,893 for the province of Guayas in 2018. At the provincial level, the population between 15 and 24 years old represented 17.53%, or 468,468 youth and young adults.

Table 1. *Population of the Province of Guayas*

Age	Inhabitants	%
< 1 year	79.706	1,87%
1 - 4	318.782	7,47%
5 - 9	403.448	9,45%
10 - 14	401.399	9,41%
15 - 19	385.153	9,02%
20 - 24	363.171	8,51%
25 - 29	339.054	7,94%
30 - 34	319.645	7,49%
35 - 39	301.552	7,07%
40 - 44	275.324	6,45%
45 - 49	244.040	5,72%
50 - 54	214.538	5,03%
55 - 59	183.941	4,31%
60 - 64	148.254	3,47%
65 - 69	110.827	2,60%
70 - 74	77.056	1,81%
75 - 79	49.727	1,17%
80 and over	52.276	1,22%
	4.267.893	100%

Source: Taken from senior thesis Chilan et al., (2018)

Table 2. *Sample size calculation*

Criteria	Percentage	Quantity
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Population Guayaquil		2.671.801
15 to 24 years old	17,53%	468.468

Source: Taken from senior thesis Chilan et al., (2018)

The formula for calculating the sample size when the population size is known is as follows:

$$n = \frac{K^2 \times p \times q \times N}{(e^2 \times (N-1)) + K^2 \times p \times q}$$

n = Is the size of the population sample to be obtained.

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N = Is the size of the total population. (468.468)

p = (0,5)

q = (0,5)

k = Is the value obtained by confidence levels (1.96).

e = Represents the acceptable limit of sampling error.5%.

$$n = \frac{(1.96)^2 \times 0.5 \times 0.5 \times 468468}{(0,05^2 \times (468468 - 1)) + (1.96)^2 \times 0.5 \times 0.5}$$

Through the calculation of the sample knowing the population, it was determined that 384 people were surveyed to determine the level of acceptance of the product.

Results

For the analysis of this study, five questions were selected from the research work conducted by Chilan et al., (2018) which are related to ice cream consumption and we found the following results.

Most of the population surveyed, 55% said that they consumed ice cream once a month; 21% consumed it twice a month; 18% consumed it three times a month; 35% consumed it four times a month; and 17% consumed it more. A high consumption of ice cream is evidenced, which is produced by the warm weather and habits.

Consumers indicated that cups and cones are the presentations of greatest preference, corresponding to 35% and 33%, respectively. Twenty-one percent of consumers prefer pallets and 11% by the liter.

52% of respondents have indicated that they are generally used to paying between \$0.50 and \$1.50 for ice cream, 32% pay between \$1.51 and \$3.00; 11% pay between \$3.51 and \$4.00; only 5% are willing to pay more than \$4.00. These results are related to the age range of the respondents and their availability of financial resources, most of whom depend on the heads of household .

Most of the surveyed population does not know the product 77%, and only 23% do.

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When asked if they would consume an exotic product without indicating the flavor, the results obtained were: 57% of the respondents would be willing to taste it; 28% would not and 15% maybe. These results suggest that the majority of respondents are open to trying an exotic product, even without knowing its specific flavor.

According to the survey results, high ice cream consumption is observed in the majority of the surveyed population. This is attributed to the warm weather and established habits. In addition, consumers tend to prefer to purchase ice cream in cup and cone presentations, suggesting that people have an inclination towards traditional artisanal ice cream.

These findings are related to the age range of the respondents and their availability of financial resources. Most of the respondents are dependent on the heads of household, indicating that ice cream consumption may be influenced by factors such as age and family economic status. It is likely that ice cream consumption habits are rooted in local culture and family tradition, which contributes to the high consumption observed in the survey.

Based on the results of the survey, the majority of the surveyed population (77%) is not familiar with the Jiron fruit, while only 23% are familiar with it. However, when asked if they would be willing to consume an exotic product, which generates health benefits without indicating the taste, the results were quite favorable. Fifty-seven percent of respondents would be willing to try a new ice cream under these conditions.

This finding is important and suggests that there is potential interest in the introduction of a new product such as Jiron ice cream, especially among young people who are open to change and attracted to new ideas and trends. Therefore, this criterion would be relevant to consider in the development of an advertising campaign, as it indicates a significant receptivity to innovation and products that promote health benefits.

Conclusions

At the national level, the tradition of consuming artisanal ice cream remains deeply rooted, suggesting that the product will be in demand among both local residents and tourists visiting the country. This situation represents an excellent opportunity for the agricultural sector, especially in the province of Manabí, where the Sicana Odorifera or Jiron is produced.

By analyzing the information obtained from the applied survey, an average consumption per person of 3.13 ice creams has been calculated, which represents a significant amount of ice creams consumed monthly by the target market. The market segmentation has been carried out taking into account the population that consumes ice cream in pushcarts, since they are looking for different flavors from the traditional ones and are willing to try a new flavor. This allows us to identify a specific niche within the ice cream market in the city of Guayaquil, where sales efforts can be focused to achieve greater success in the introduction of Jiron's artisanal ice cream.

The reactivation of the agricultural sector through the production of this fruit not only represents an economic opportunity, but also a social one, as it can generate employment and development in the region. In addition, by establishing the city of Guayaquil as a destination for marketing the fruit, the local economy will be further strengthened and gastronomic tourism will be promoted, which will benefit the entire community.

The development and commercialization of Jiron's artisanal ice cream will not only boost the local economy, but also promote the country's cultural and gastronomic tradition, attracting both residents and tourists interested in trying new flavors and unique experiences.

Increasing the variable bonus to BDH beneficiaries could improve the effectiveness of the loans granted, as it would provide them with greater financial support to invest in their enterprises. This could have

a positive impact on the local economy by stimulating entrepreneurial activity and job creation in the community.

In summary, access to credit and additional financial support for beneficiaries of the human development voucher could be key to boosting the growth and sustainability of Jiron's artisanal ice cream businesses, thus contributing to the economic and social development of the region.

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