

Financial Analysis of a Poultry Production Microenterprise

Análisis Financiero de una Microempresa de Producción Avícola

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Abstract

This paper presents the results of a financial study conducted with a family microenterprise, which is located in the Mixteca region of Puebla, dedicated to poultry production. This is a very common economic activity that represents an alternative income and self-consumption for families in rural communities such as the one previously mentioned. During the first stage, financial opportunity areas of the company were identified. Afterwards, a strategic plan will be formulated that allows this microenterprise to survive. After that, in the medium term, the microenterprise could grow and get a good position in the market. The main problem detected in the microenterprise is that with the amount of biological assets that it currently operates, it does not have the necessary egg production to cover its costs and expenses, so it gets a considerable loss. This research was carried out through the Integrative subject of Engineering in Project Management Major. Through these Integrative subjects, the technological universities strengthen the link university company and facilitate the transfer of technology thus contributing to the competitiveness of micro-enterprises.

Integrative subject, Financial analysis, Microenterprise, Poultry sector

Resumen

En este artículo se presentan los resultados de un estudio financiero realizado a una microempresa familiar dedicada a la producción avícola, ubicada en la mixteca poblana, esta actividad económica es una alternativa de ingresos y autoconsumo para las familias de comunidades rurales, a través de esta investigación se identificaron áreas de oportunidad financieras de la empresa, posteriormente en una segunda etapa, se formulará un plan estratégico que permita primeramente la supervivencia de la entidad, y en el mediano plazo su crecimiento y posicionamiento en el mercado. El principal problema detectado en la microempresa es que con la cantidad de activos biológicos que opera actualmente, no llega a tener la producción de huevo necesario para cubrir sus costos y gastos, por lo que obtiene una pérdida considerable. Esta investigación se realizó a través de la asignatura Integradora de la Ingeniería en Gestión de Proyectos, por medio de estas asignaturas las universidades tecnológicas fortalecen el vínculo universidad empresa y facilitan la transferencia de tecnología contribuyendo así a la competitividad de las microempresas.

Asignatura Integradora, Análisis financiero, Microempresa, Sector avícola

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Introduction

Backyard poultry is an activity of great importance in the rural communities of the country, characterized by the low investment required and the ease of carrying it out. (Romero Lara)

In 2016, an egg consumption of 22.1 kilos per capita and a production of two million 731,891 tons was registered throughout the Mexican Republic, with the State of Puebla being the second egg producer in the Republic contributing 18.4%. (Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food, 2016). The organic egg, also called enriched, ecological or campero, is a real alternative for those small poultry producers who are looking for new roads, and who, despite having little capital, have a broad commercial vision. This product from feeding the hens in a natural way, housed in semi-captivity, without artificial lighting, represents an interesting diversification opportunity for the small producers that now face the big companies producing commercial eggs. (Esquivel, 2004)

Small and medium-sized companies are the backbone of Mexico's economy, of just over 4 million existing companies in Mexico during 2014, 97.6% are microenterprises and account for 75.4% of total employed personnel, followed by small companies with 2.0% and 13.5% and medians representing 0.4% and 11.1%, respectively. (National Institute of Statistics and Geography, 2017)

The present investigation has as its purpose; know the management of the financial resources of a family poultry microenterprise producing organic egg, located in the municipality of Chietla, belonging to the Mixteca poblana, in order to identify areas of opportunity to ensure its survival in the local market, in a manner of hypothesis is established that the lack of techniques in the administration of resources and the ignorance of the employer on the management and obtaining of government support, causes a limited production and that prevents the activity from becoming a business and only remains as an alternative of self-consumption for the family.

Idalberto Chiavenato mentions that the company "is a social organization because it is an association of people for the exploitation of a business and that it has a certain objective, which may be the profit or the attention of a social need" (Chiavenato, *Iniciación a the Organization and Commercial Technique*, 2000). Therefore we can point to the company as: an organization that performs a set of activities and uses a variety of resources (financial, material, technological and human) to achieve certain objectives, such as the satisfaction of a need or desire of the target market, in order to profit or not; and that it is built from specific conversations based on mutual commitments between the people who make it up.

Companies can be classified, according to the activity they develop, into: industrial, commercial and service. And according to its size, it is divided into micro, small, medium and large. Monteros defines microenterprise as an association of people who, operating in an organized manner, use their knowledge and resources: human, material, economic and technological for the production of products and / or services that are supplied to consumers, obtaining a profit margin after covering their variable fixed costs and manufacturing expenses "(Monteros, 2005). Recall that for a company to work, it is essential to know the administrative process of planning, organizing, directing and controlling the activities of the members of the organization, in order to achieve the goals set. The Ministry of Finance and Public Credit establishes a stratification, based on the number of workers and annual sales, as shown in Table 1.

Stratification				
Size	Sector	Rank of number of workers	Range of annual sales amount (mdp)	Maximum combined stop #
Micro	All	Up to 10	Up to \$4.00	4.6
Small	Commerce	11-30	\$4.00-\$100	93
	Industry and Services	11-50	\$4.01- \$100	95
Median	Commerce	31-100	\$100.01 -	235
	Services	51-100	\$250	
	Industry	51-250	\$100.01-\$250	250

Table 1 Estratificación de empresas por la SHCP
Source: (Economía, 2009)

The company under study is of the micro type and belongs to the agro-industry sector. Agroindustrial companies are business units that generally arise from the integration of agricultural producers, in order to carry out agroindustrial processes of transformation or processing of primary production, with the aim of taking it to the modern market with a new added value and retaining part of this. This type includes the agroindustrial projects carried out by peasant organizations, be they cooperatives or producer associations, or simply temporary unions (Parra Escobar).

The municipality of Chietla belonging to the Mixteca region of Puebla (southwest in the state of Puebla), is where the family microenterprise object of study is located, dedicated to poultry production. Chietla is formed by a total territorial surface of 276.82 square kilometers. Due to the variety of elevations found in its territory, its average altitude is 1,000 meters above sea level (msnm). On the other hand, the INEGI (2010), released the results obtained from the third count of population and housing made in all states and municipalities of the country, in 2010 noted that the population number in the municipality of Chietla is 33,937 inhabitants, for this research only the population of the municipal head was taken into consideration, since that is where the companies of the present study are located, therefore the town of Chietla is inhabited by 5,726 people, which corresponds to a 16.87% of the total population. (SEDESOL, 2013)

Materials and methods

The research was carried out through the Integrative II subject of the Engineering Education Program in Project Management. The company under study is a family type, micro size, with 2 years of operation. The research is developed by members of 3 academic bodies and the direct participation of students. The syllabus of the subject calls for the identification of a problem and the integration of a file for the management of government subsidies, however in this article only the results obtained from the financial analysis are presented in a diagnostic manner, regardless of whether the project integrator was concluded according to the curriculum.

The information was obtained based on interviews conducted with members of the family business, in addition to the students made field visits to learn about the processes and operations of the same.

The information obtained through the interview and the observation, was treated by means of a cost analysis elaborating a Financial Situation Statement and a Results State, likewise the equilibrium point was determined. This to determine areas of financial opportunity in the company.

Results

Based on the information gathered through the interviews, financial statements were integrated to carry out the corresponding analysis. It is worth mentioning that the company in question has already 28 months in operation. Table 2 shows the balance sheet when starting operations, where we observed that 70% of the capital was obtained from a subsidy from the Ministry of Social Development.

Initial General Balance Poultry company			
Active:		Passive:	0.00
Circulating:			
Biological warehouse (20 hens)	1,800.00	Capital:	
		Sedesol	1,300.00
Not circulating:		Owner	3,050.00
Property plant and equipment	2,550.00	Sum of Liability plus Capital	4,350.00
Total active	4,350.00		

Table 2 Initial General Balance
Source: Own Elaboration

Table 3 shows the income statement corresponding to the last year of the company, which included the costs and expenses that the family business does not account for. Obtaining a considerable loss.

Income Statement for the period from January 1 to December 31, 2017		
Revenue from sales (4,745 X 2.50)		\$11,862.50
Less Costs:		
Direct labor	\$19,200.00	
GIF (Supplies)	6,348.00	
GIF (Variables: Water and Light)	4,002.00	\$29,550.00
Gross profit		-17,687.50
Less General Expenses:		
Cleaning articles	\$7,751.00	
Administrative salaries	28,000.00	\$35,751.00
Loss of operation		-53,438.50

Table 3 Statement of income
Source: Own Elaboration

Based on the information presented in the previous income statement, the balance point of the company was calculated to make future projections.

Fixed costs-Variable costs	
Fixed costs:	
Workforce	19,200.00
Supplies	6,348.00
Cleaning articles	7,751.00
Administrative salaries	28,000.00
Total	61,299.00
Variable costs:	
Light	2,400.00
Water	1,602.00
Total	4,002.00

Table 4 Fixed costs-Variable costs
Source: Own Elaboration

Determination of variable unit cost: $4,002 / 4,745 = 0.84$
Unit sale price = 2.50

Formula:

$$PE = \frac{\text{Fixed costs}}{\text{Sales price} - \text{unit variable cost}} \quad (1)$$

$$PE = \frac{61,299}{2.50 - 0.84}$$

$$PE = \frac{61,299}{1.66}$$

$$PE = 36,927.11$$

Result: It is required to sell 36,928 eggs to avoid loss

Determination of number of hens for equilibrium point:

$$\text{Annual production of each poultry} = \frac{365}{2} = 182 \text{ Huevos}$$

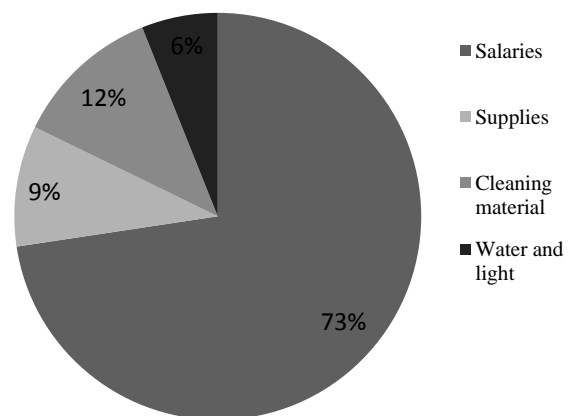
$$So = \frac{36,928}{182} = 202.8962 = 203 \text{ hens}$$

Once the equilibrium point for poultry is known, the following projected results statement was made.

Income Statement based on Balance Point:		
Sales income 36,928 X 2.50		\$92,320.00
Less Costs:		
Variable cost: 36,928 X 0.84	\$31,021.00	
Direct labor	19,200.00	
GIF (Supplies)	6,348.00	\$56,569.00
Gross profit		\$35,751.00
Less General Expenses:		
Cleaning articles	\$7,751.00	
Administrative salaries	28,000.00	\$35,751.00
Loss of operation		\$0.00

Table 5 Statement of income
Source: Own Elaboration

Then Figure 1 shows the percentage distribution of costs and expenses of the company where we see that the highest percentage corresponds to salaries.



Graphic 1 Costs and expenses of the poultry Company
Source: Own Elaboration

Discussion

Regardless of whether the companies carry out a financial study (internal analysis) that allows them to visualize and make decisions, it is necessary to study the risk factors from the environment, therefore, in the regional context in which the poultry micro family business is located, It detected that there are factors that favor the development of this entity, since in this locality it is the only one of its kind, it includes a market niche of organic egg consumers, therefore the large poultry companies do not represent a serious threat as direct competitors . In contrast, there are also factors that hinder the company from achieving a position in the local market, among which are the lack of suppliers close to the region, inadequate training and training in the management of bird care and the lack of development of a trademark.

According to the bibliography consulted on the poultry activity, it is said that this generates surpluses for sale and represents a source of income for families, this is correct if it is considered only as an economic activity in addition to the main source of income of these, in This study was conducted on the microenterprise, already seen as a business that becomes the main activity providing the livelihood of the nuclear family.

Conclusions

The poultry activity in the region is perhaps very common in the backyards, because its management is simple and its production process is not complicated in smaller quantities and generally the product is only used for self-consumption, but when its production increases this process it becomes complex, becoming a company that requires certain factors that allow it to develop well, such as; a training, facilities, infrastructure, equipment, optimization of resources to become competitive. As a result of the financial analysis of the poultry company it was determined that during his last year, it was a loss that the microentrepreneur does not visualize, since he does not consider as costs and expenses the salaries of the relatives in charge of the care of the hens and the sale of the egg, besides the consumption of electrical energy, water, among others.

As mentioned in the discussions, if we visualize the microenterprise as the activity that provides income for the family, it is concluded that the main problem is the lack of hens for a sufficient production that covers the market demand, the factors that accentuate this The problem is the lack of availability of breeding stock due to the scarce suppliers in the region and the lack of economic resources of the entrepreneur for the acquisition. In this way, what is stated in the hypothesis is verified, mainly the lack of knowledge about obtaining government subsidies for this type of microenterprises.

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