

## Realities of the financial management of the strawberry sector in the municipality of Sibaté, Cundinamarca.

Realidades de la gestión financiera del sector fresero en el municipio Sibaté, Cundinamarca

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### ABSTRACT

The objective of this article is to identify the realities of financial management applied by the business units of the strawberry producing and marketing sector in the municipality of Sibaté, Cundinamarca, taking into account the relevance of regional development and the primary sector of the Colombian economy. At the methodological level, from a descriptive scope and a quantitative approach, 282 surveys were applied to managers and legal representatives of formally constituted companies with the aforementioned corporate purpose and geographic location. Among the main results, it is evident that these businessmen have important weaknesses in financial management and there are no elements within their practices that, from the financial management point of view, give value to their corporate purpose. It is concluded that the businessmen of the sector studied should keep in mind that adequate financial practices strengthen the business fabric, which

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generates wellbeing for the whole society through regional development.

**Keywords:** Financial management, regional development, strawberry marketing.

### **RESUMEN**

El objetivo de este artículo consiste en identificar las realidades de la gestión financiera que aplican las unidades empresariales del sector productor y comercializador de fresa del municipio de Sibaté, Cundinamarca, esto teniendo en cuenta la pertinencia del desarrollo regional y del sector primario de la economía colombiana. A nivel metodológico, desde un alcance descriptivo y un enfoque cuantitativo, se aplicaron 282 encuestas a gerentes y representantes legales de las empresas formalmente constituidas con el objeto social y ubicación geográfica ya mencionada. Dentro de los principales resultados se evidencia que estos empresarios poseen importantes debilidades en la gestión financiera y no existen dentro de sus prácticas elementos que desde la gerencia financiera otorguen valor a su objeto social. Se concluye que los empresarios del sector estudiado deben tener presente que, las adecuadas prácticas financieras fortalecen el tejido empresarial con el que se genera bienestar a toda la sociedad mediante el desarrollo regional.

**Palabras clave:** Gestión financiera, desarrollo regional, comercialización de fresa.

## Introduction

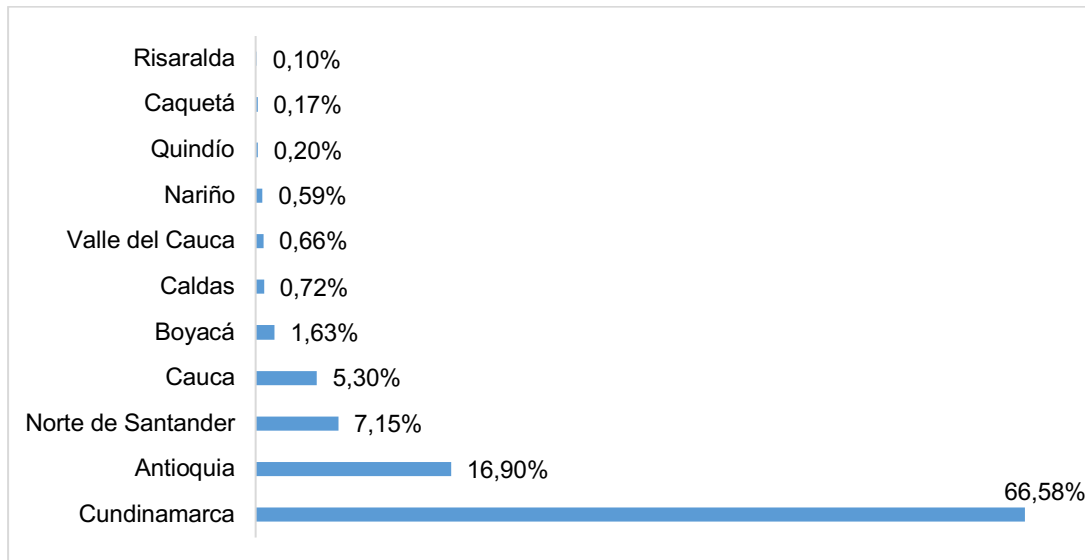
The municipality of Sibaté Cundinamarca has a total area of 125.6 km<sup>2</sup>, equivalent to approximately 12,560 hectares, and of these 1,100 are dedicated to agricultural production, which is focused on the potato, pea and strawberry production system (Alcaldía de Sibaté, 2018). Given that the production and commercialization of this last product is within the three main production systems and of greater economic impact in the municipality, 83% of strawberry producers and marketers have their productive units for rent and are characterized by having financial behaviors and business practices in informality and without control of their accounting; the remaining 17% of entrepreneurs are owners of the land where this product is grown and their organizations are within the formality and legal constitution (Evaluaciones Agropecuarias Municipales, 2019).

Most of the strawberry producing and marketing companies in the municipality, especially the informal units, have had insufficiencies for their structure and performance, they do not consider a panorama of innovation, they cultivate and operate on daily chores, they have a high focus on sales, neglecting the control of their income and expenses, making their financial structure inadequate for administrative operability. Orazi, Martinez & Vigier (2019) state that it is vital to have an assertive administrative process in terms of financial activities, so that business units can be properly managed and corrective and preventive actions can be taken in time, in order to ensure business success.

It is relevant to highlight and identify the levels of world strawberry production to understand the economic context faced by producers and marketers of this activity in the municipality. For 2015 worldwide 4.6 million tons were produced, with the United States being the main producer with 1,524,172, followed by Mexico with 371,400, Turkey with 353,173, Spain with 289,900 and Egypt with 242,297, Colombia is ranked 18th in the world ranking with 58,555 of production in tons (UN, 2019). The above supports the continued importance of strengthening the primary sector of the economy for countries such as Colombia (López-Rodríguez, et al, 2020).

Strawberry production in the country enjoys a good level of production, reflected in the rapid growth of this activity in recent years. According to DANE figures (2020), strawberry production reported a total of 57,172 tons. The department of Cundinamarca recorded the highest participation, followed by Antioquia, Norte de Santander Cauca and Boyacá, as shown in Figure 1.

**Figure 1.** Ranking of strawberry production at departmental level .



Source: Prepared by the authors based on DANE (2020).

In the department of Cundinamarca, the strawberry market trend pattern was maintained in the last three years, the territories dedicated to this crop in Colombia have had a gradual development, so that in geographical terms, the crop is concentrated in the savannah of Bogota and its outlying municipalities, among which stand out the municipalities of Sibaté with 15,960 tons, Facatativá with 6,822 tons, Soacha with 5,757 tons and Chocante with 5,090 tons. In other regions, such as Norte de Santander, the municipalities of Silos 1,225 tons, Pamplona 1,190 tons and Cacota 560 tons stood out (DANE, 2020).

Taking into account the above, this research process responds to the following problem: What are the realities of financial management applied by the business units of the strawberry producing and marketing sector in the municipality of Sibaté, Cundinamarca? To this end, the actual application of financial practices within the management of these organizations was determined, in order to understand the relationship between financial management variables and their impact on the regional development of the sector.

The application of financial practices supported by the theories of the development of administrative functions for investment decision-making, indicate that such habits are used to carry out the investment selection process in companies operating in Colombia (Vecino, Rojas & Muñoz, 2015). They must also be based on creativity and the ability

to generate projects and alternative ways of producing and managing reality, when this day comes, it will be possible to speak of development and the construction of autonomous ways of being and thinking (Escobar-Sierra et al. 2021). Therefore, the interaction and strategic use of monetary and non-monetary values in transactions, organizational habits and cultural scopes involved in daily financial practices must be considered (Van Raaij et al. 2020).

According to Ferrero (2014) the link that financial practices achieve according to who develops them and their purposes, estimate the risk and the measures taken to diminish the information acquired for the interpretation of analytical resources; likewise, it should be considered that the model based on the small business system is, in any case, a dynamic model, that is, the conditions of survival of the system are changing over time (Fragoso, 2015). In this sense, the perspective of observation of Colombian companies from the development of the regional economy and the effect on the present on the social and economic process (Álvarez et al. 2018).

For Van Raaij et al. (2020) the practices of social responsibility in terms of social and cultural dimensions in the financial practices of low-income people or rural sectors evidence the crisis in terms of regional development, i.e. that the purpose of the process of classification of investment projects and the discernment of organizations that know evaluation criteria where to invest is crucial for the positive outcome of the financial objectives (Rodríguez, 2014). Likewise, ideas and skills can be originated that reform the principle of creativity and breadth to disseminate projects and variables to produce and manage reality (Rangel, 2012).

Quiñonez & Canal (2018) emphasize that cases of small companies were found, where their managers possessed higher studies and therefore used a defined method to size investment projects and, additionally, identify companies in which their managers, despite having a high level of studies, did not implement any technique. Therefore, local and family economic effects cannot be obviated from the economic and financial changes generated in the national and international environment, to discern the financial practices of over-indebted households (Romero-Muñoz et al. 2021); therefore, Nizam et al. (2019) infer that companies should adopt methods to evaluate and rank investment options that are viable, such as time value procedures, Net Present Value (NPV), Internal Rate of Return (IRR) and Required Rate of Return.

In view of this, accounting can be perceived as a process of formation of dominant values in the environment; therefore, accounting can be studied on the basis of its authority as a way of thinking, which promotes the legitimization of organizations (Boisjoly et al. 2020). Secondly, the tendency to provide a solution to the clarification

of economy, efficiency and effectiveness in the management environment in conjunction with management indicators (López-Rodríguez et al. 2022). Thirdly, Angulo Sánchez (2016) indicates that it is essential to take into account the ways in which companies and, above all, individuals solve a debt situation by linking material and symbolic resources by their class, gender and ethnic condition.

The role of the company shows meanings and representations of accounting and its sources of resources for financing, from the context established in the use of accounting as a tool of organizational legitimacy with the environment (De la Hoz Granadillo et al. 2014), although there is no way for the market-driven economy to function favorably with a legal system that does not guarantee the execution of contracts with internationally competitive costs (Briozzo et al. 2016); therefore, the formal financing system comprises a diversity of instruments and sources of financing for the national, regional and municipal levels, in the public as well as private sector (Nava Rosillón, 2009).

Martínez Velázquez & Dutrénit Bielous (2019) state that the approach of entrepreneurship and financing models through venture capital, determine the significant scope for the market with great sympathy and success in the environment. On the other hand, financing in an innovation environment that needs, internal and external funds as a complement for upcoming innovations; which does not allow the financing of markets to be given in the basic research phase (Rangel, 2012); hence, the methods in which companies and families use their economies and their debts should be considered especially, savings, since consumption needs and access to money along with social ties should have reciprocal moral obligations (Ferrero, 2014).

According to Aguilar, Torres & Salazar (2017) the operational financial management, performs the appropriate management of available cash, as it determines the credit terms to be granted to customers that establish a stimulus and this benefits sales, to specify the current financing that decreases costs and the use of inventories (Engel et al. 2018), likewise the effective management of working capital causes the liquidity required in the company to meet the solvency and obligations with suppliers generating labor benefits preventing the company from falling into technical insolvency (Swan, 1956) in such sense the working capital is an elementary fraction of the short term financing of a company, for which it is recommended to manage cautiously achieving to be relevant in the use of resources (Meleán, Moreno & Rodríguez, 2009).

After the end of World War II, the pretensions of a constant and hasty economic and regional development became a concern for Latin American governments until the

mid-1980s (Chemkha et al. 2021). In the globalization of the territory and the region, it overflows the national borders where it is implemented and it is achieved in a certain way that there is concordance in the activities that comprise the economic, financial, technological and cultural life of the regions (Olea-Miranda, Contreras & Barcelo-Valenzuela, 2016), thus promoting regional development, an activity that arouses great interest invites and gives the possibility of some self-centered productive methods, established in the local productive and social resources (Rello & Saavedra, 2013).

For Boisier (2004), regional or territorial development is based on three processes: the regionalization of countries, the decentralization of public-private conclusive systems and the corresponding institutions in territorial areas and the development of the regions themselves, which is directly related to the size of companies and their survival; hence, progress is the safest strategy to preserve the balance in organizations that adapt easily to the environment (Hernandez, 2009). According to the Law of Proportional Effect (Lep), the mismatch between growth and business size allows perceiving the prototype of organizations that develop in occupation of their size, assuming measures that can be deployed activating the economy with the generation of jobs (Quirós, M., Quirós, J. & Izquierdo, 2017).

Hernandez (2009) considers that the small and medium enterprise contributes to the economic development of a region or territory by its generation of value and job creation, seeing the effects it produces in the fields of activity, growth and regional development, since, entrepreneurship is an economic and social invention; starting from, the behavioral, where reference is made to the subject that assumes the commitment for a business idea (Belaïd & Zrelli, 2019). The ability to obtain democratically established collective objectives is based on the same appreciation of the structure and dynamics of the procedures on which it will be necessary to intervene in a new business idea (Boisier, 2004).

For Recalde, Guevara & Jaen (2017) entrepreneurship favors not only those who venture to promote business ideas, but also generates a collateral consequence on the rest of society, in turn "Regional development involves a theoretical renewal on development, and implies the resizing of capitalist accumulation, recognizing the importance of local productive systems in the processes of growth and structural change" (Manet, 2014, p. 22). Political and territorial decentralization is now expressed in Colombia through the election of departmental governors and mayors; as a result, departments and municipalities now receive enormous resources transferred by the nation (Boisier, 2004).

Rello & Saavedra (2013) estimate that the new focus of regional development is competitiveness and it is the link between the economic advancement of countries and the participation of international markets for the multiple effects of contemporary economic development, where it is worth highlighting that "entrepreneurship as a factor that affects economic development in the case of territories" (Recalde, Guevara & Jaen, 2017, p. 3). In addition, with the passage of time the population increased the extension of the regions; it was notorious where market centers became clustering centers, then the theory of economic geography emerged that explains the reason for such behaviors (Rodriguez et al. 2013).

### **Materials and methods**

The scope of the research was descriptive with a quantitative approach, in which the realities of the financial management applied by the business units of the strawberry producing and marketing sector in the municipality of Sibaté, Cundinamarca were characterized. The population studied were the managers and legal representatives of legally constituted companies dedicated to the production and commercialization of strawberries in the municipality of Sibaté Cundinamarca, and according to the Municipal Mayor's Office there are 282 organizations with these characteristics (Evaluaciones Agropecuarias Municipales, 2019).

Probabilistic sampling was used to obtain the sample, since it allows distinguishing the probability of each unit of analysis, which must be integrated into the sample by random selection, thus comprising the simple random sampling procedure (Posso, 2014). From a confidence level of 95%, a margin of error of 5%, and according to the coefficient of positive and negative variation of 50% each, the sample was 195. According to Poveda, et al, (2020). In research, social appropriation is guaranteed, as a space for academic reflection.

The instrument for the collection of information was a survey which, according to Arias-Gómez, et al, (2016) is a strategy of methods that lead to comprehensive research processes, including the formulation of the problem, the objectives, the selection of individuals and entities together with the design and analysis of data. This instrument has twelve items, the first three characterize the population studied, the remaining nine characterize the financial management practices developed by these organizations based on multiple choice questions. The survey instrument was applied by telephone, e-mail and visits to the productive units of those who agreed to participate and who were previously informed of the informed consent.

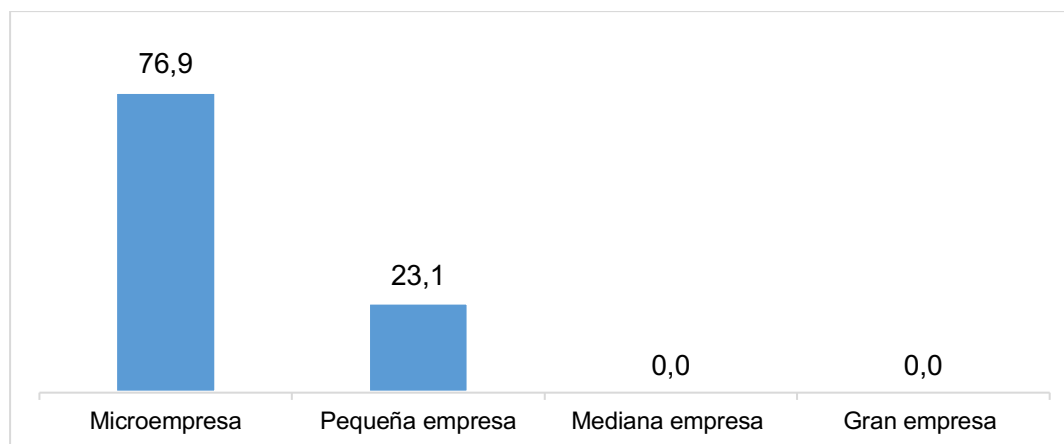


The information gathering instrument was validated by two experts, one of whom was an expert in financial management and the other an expert in statistical processes. The SPSS® 25.0 (Statistical Package for the Social Sciences) statistical package was used to analyze the results.

## Results

The results obtained from the implementation of the methodological proposal reflect the descriptive characterization of the companies that belong to the strawberry producing and marketing sector in the municipality of Sibaté. Figure 2 shows the classification of the sizes of the enterprises, where 76.9% are microenterprises and 23.1% are small enterprises, concluding that the difference is significant because of the alternative that microenterprises generate to improve the living conditions of the sector, obtaining additional income in the regional development of the municipality; likewise, they are the main source of employability for the female population of the municipality of Sibaté, Cundinamarca.

**Figure 2.** Size of the companies studied expressed in percentages

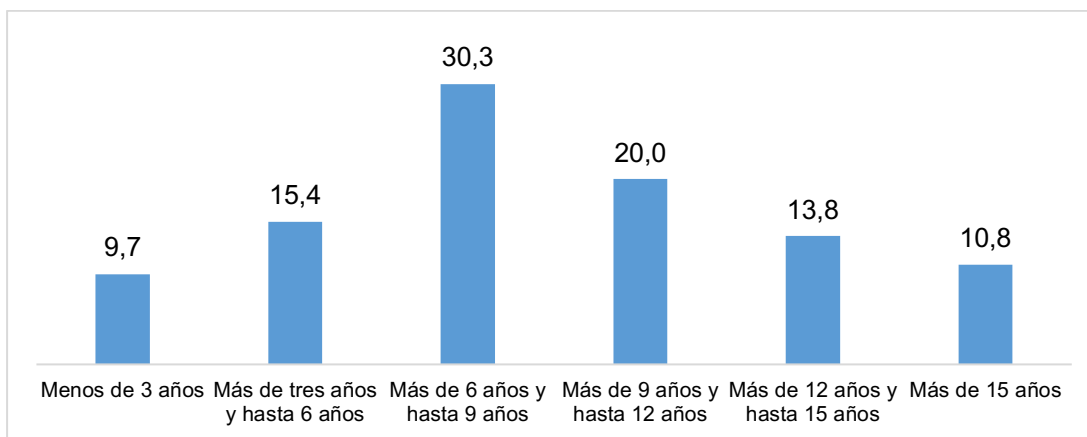


Source: own elaboration

Figure 3 shows the time in the market of the companies in the strawberry producing and marketing sector in the municipality of Sibaté, Cundinamarca, where 10.8%, 13.8% and 30.3%, respectively, of the productive units are pioneers in the market, showing a transcendence in time of more than 6 and up to 15 years, evidencing the adequate management of the production and marketing factors. 3% respectively of the productive units are pioneers in the market, showing a transcendence in time of more than 6 and up to 15 years, evidencing the adequate management of the production and

commercialization factors, which shows that the growth in the market and the life cycle of the product are some of the variables by which the legal representatives decide to invest in this sector, since the particularities and characteristics of the environment contribute to the regional development process of the municipality.

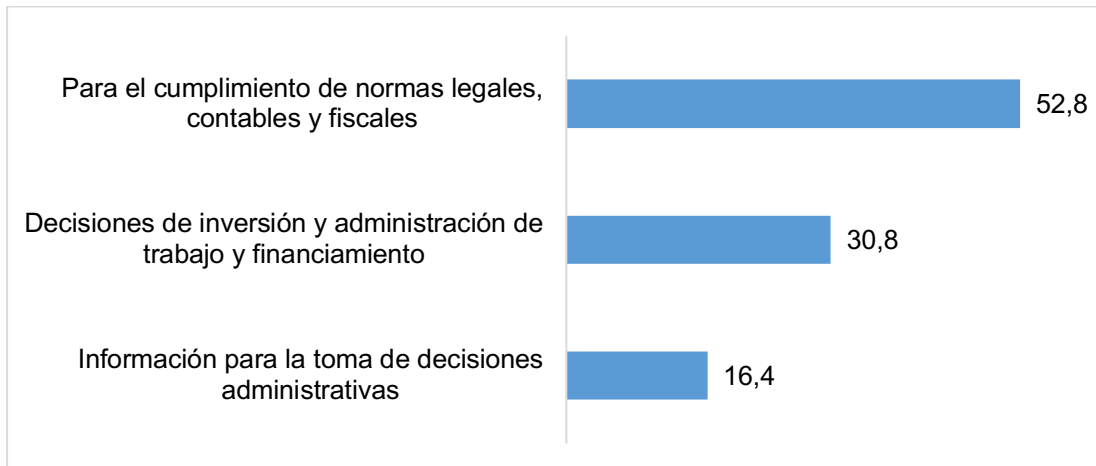
**Figure 3.** Time on the market of the companies studied expressed as a percentage.



Source: own elaboration

Figure 4 shows the purposes for which the legal representatives of the companies consider that there should be a person or area in charge of financial activities. 52.8% state that the purpose of these financial activities is to comply with the legal, accounting and tax regulations of the company, but the lack of knowledge of the subject and the fear that their economic and financial information will be known by third parties keeps them away from this alternative; on the other hand, 30.8% are inclined to investment decisions, work administration and financing, allowing this percentage to drive the different stages of the operation; and 16.4% state that the existence of a person or area in charge of finances is granted by the need to manage information for administrative decision-making, which shows that for these entrepreneurs, financial activities in their microenterprises are a relevant control and management tool for business projection with a view to growth.

**Figure 4.** Purposes of financial activities in the companies studied expressed as a percentage.

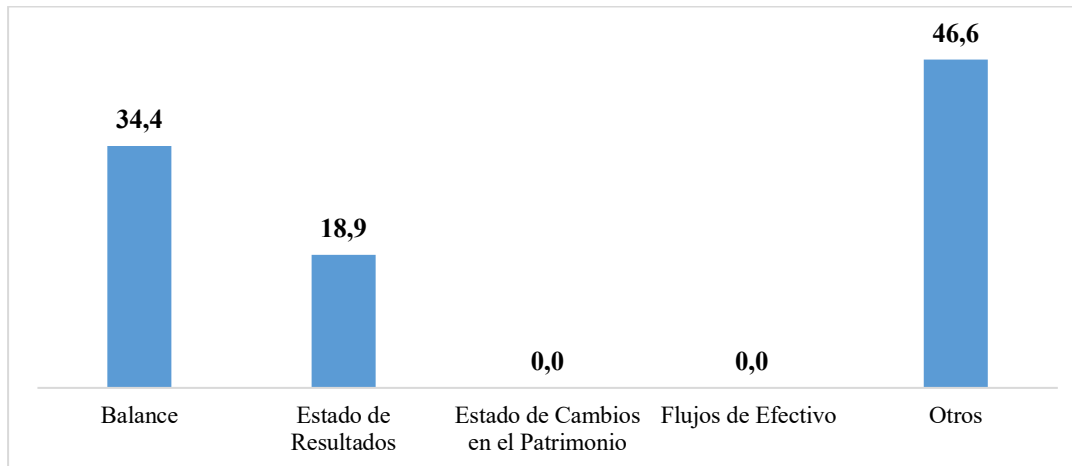


Source: own elaboration

Figure 5 shows that 46.6% of the entrepreneurs use legitimate methods, even to the point of not having any accounting, which clearly does not allow them to make long-term decisions. However, 34.4% use balance sheets in their accounting and 18.9% manage to obtain the income statement or statement of financial position, which indicates that their legal representatives contemplate keeping accounting and financial activity properly managed, which allows them to report the costs incurred, the deductions derived from the operation and the income obtained from it.

It is also important to say that the cash flow statement is one of the most complex financial statements to prepare in a company because it is necessary to have a deep knowledge of the organization to be able to develop it, so none of the productive units in the sector have used it and although it is a basic financial statement that shows the cash generated and used in operating, investing and financing activities, it is not used.

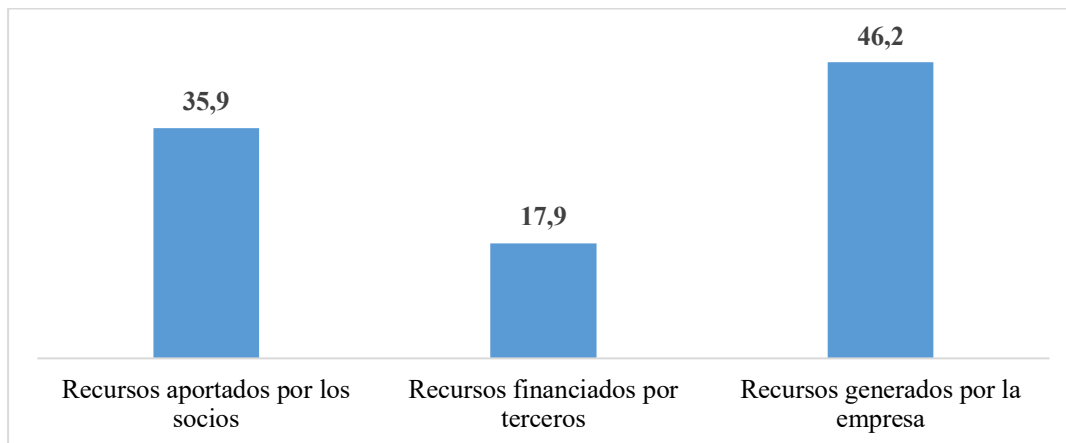
**Figure 5.** Accounting reports handled by the companies studied, expressed as a percentage.



Source: own elaboration

Figure 6 shows the sources of financing used by the legal representatives of the companies in the strawberry production and marketing sector in the municipality of Sibaté, Cundinamarca. As the first source we find the financing of the resources generated by the company with 46.2%, likewise 35.9% manage resources contributed by the partners, since it is the first source of constitution of the productive unit; while 17.9% are leveraged by third parties, such as government funds that help them generate business models and project development, this because they help create prototypes to market the product or service in the market, the managers of these organizations also rely on seed capital to start the project, and finally go to financing with banks both first and second floor in order to have flow in daily operation, since the time it takes a strawberry crop per hectare invested is two years with a value of \$ 60.000,000 million pesos per hectare planted, where the first six months should be obtained the total investment, thus from month seven will begin to make profits, otherwise there is a high possibility that the break-even point is not achieved and losses occur, which makes them to seek different sources of funding.

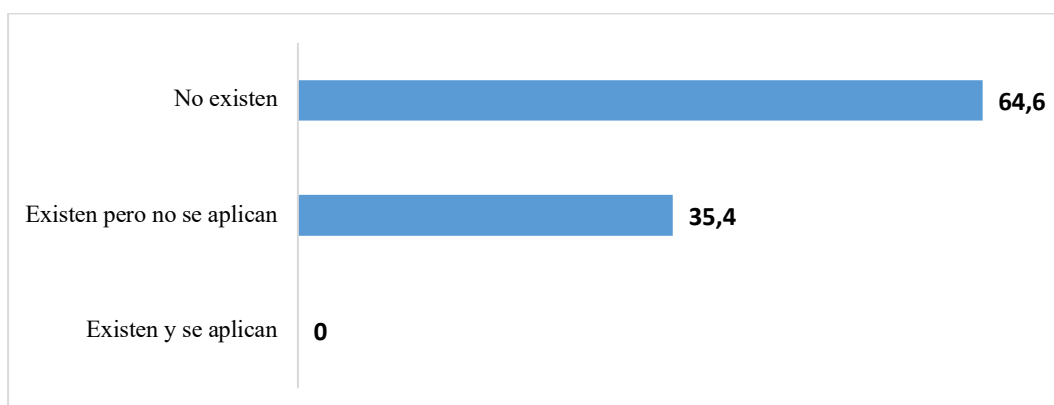
**Figure 6.** Sources of financing resources of the companies studied expressed as a percentage.



Source: own elaboration

Figure 7 shows the existence of working capital management policies of companies in the strawberry producing and marketing sector in the municipality of Sibaté, where 64.6% say that they do not have such policies and 35.4% indicate that they exist but do not apply them, which means that they are neglecting the production or service process, in turn generating increases in operating risk costs, affecting the profitability of the production units.

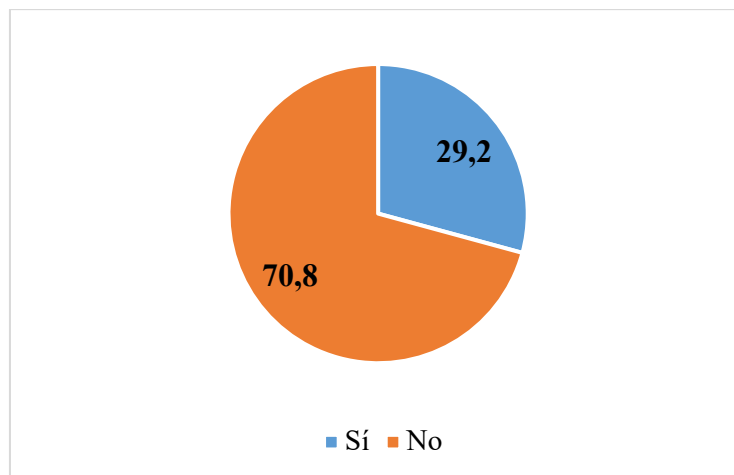
**Figure 7.** Existence of working capital management policies of the companies studied expressed as a percentage.



Source: own elaboration

Figure 8 shows that 70.8% of the legal representatives and/or managers do not contemplate investment activities because they are not clear about the concept. It is necessary to highlight that the results of graph 7 show that 100% of the companies in this sector lack a person or a team to develop the financial function, since there is no one to make decisions with criteria to reduce the risk. In the same context, 29.2% expect to have future profits even when investing generates some uncertainty when it comes to increasing capital and business activity.

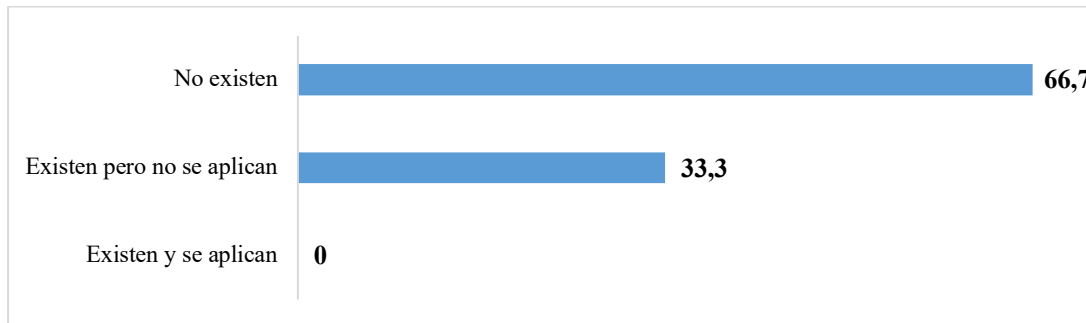
**Figure 8.** Existence of investment activities in the companies studied expressed as a percentage.



Source: own elaboration

Figure 9 shows that 66.7% do not contemplate the existence of cost systems in the companies of the strawberry producing and marketing sector in the municipality of Sibaté, Cund, which is equivalent to the lack of aspirations at a competitive level in terms of processes to adapt and orient their products with total customer satisfaction, it can also be seen how they become confused or unaware of the production processes and their requirements, likewise 33.3% indicate that they exist but are not applied, so the phenomenon for one or the other case is the same.

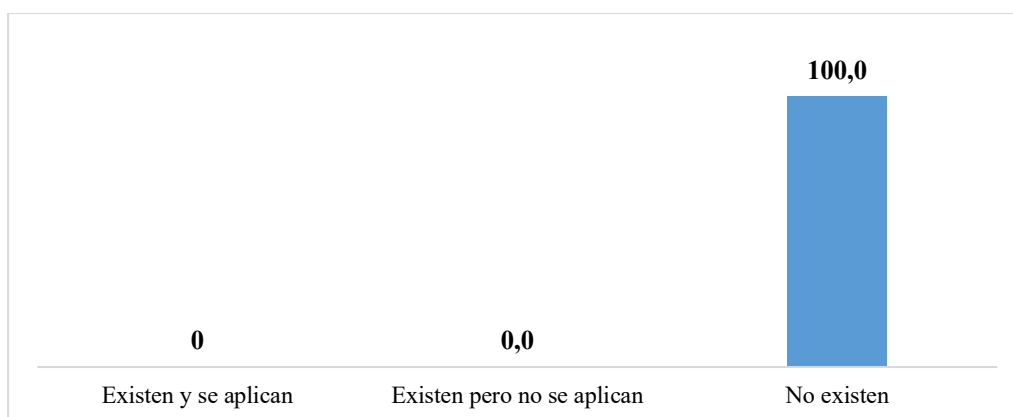
**Figure 9.** Existence of cost systems in the companies studied expressed as a percentage.



Source: own elaboration

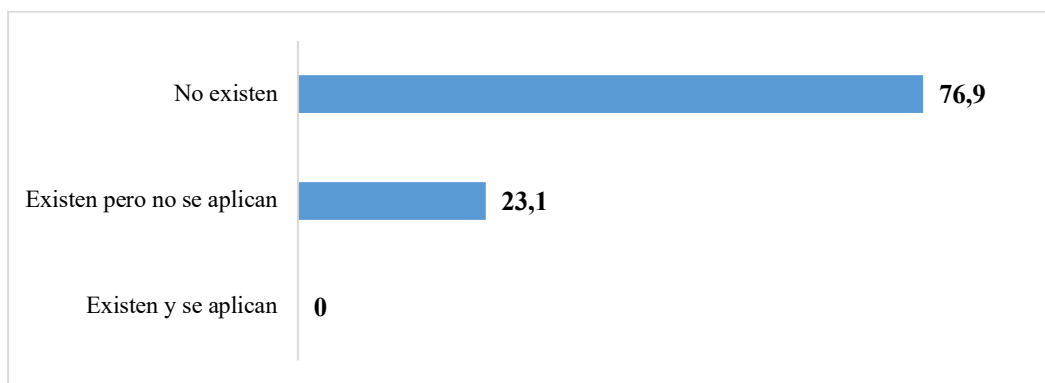
Figure 10 shows that 100% of the legal representatives and/or managers of companies in the strawberry producing and marketing sector in the municipality of Sibaté, Cundinamarca, do not use financial indicators as part of their daily operations, which means that they are unable to analyze their liquidity, solvency, profitability and operational efficiency. The harmful effects with which they are confronted day by day lead to the lack of knowing in detail the economic, financial and accounting behaviors of the organizations, this due to the gigantic fears or false beliefs that the guild has for not knowing how their company is, they prefer to start over and over again under the motto of "not to suffer in case of losses"

**Figure 10.** Existence of financial indicators in the companies studied expressed as a percentage.



Finally, Figure 11 shows that 76.9% of the companies in the strawberry producing and marketing sector in the municipality of Sibaté, Cund, do not have policies for the management of the corporate portfolio, arguing that they manage everything in cash and in cash, only 23.1% are concerned about the portfolio variable, which is one of the most important for managing working capital.

**Figure 11.** Existence of portfolio management policies in the companies studied expressed as a percentage.



## Conclusions

Within the literature reviewed, several authors were found that highlight financial practices as a transcendental pillar of the development of organizations with respect to their competitiveness (Vecino, 2015; Van Raaij et al. 2020; Ferrero, 2014), since their studies have focused on the relevance of evaluating investment projects in companies operating in Colombia, analyzing the social and cultural dimensions in the urban and rural sector. In relation to regional development, other studies are based on the holistic process in which different factors of a given region are important, as well as the business structure, without affecting the economic investment capacity, whose objective is to favor growth and development in the territories (Orozco & Rodríguez, 2017; Quirós M, Quirós. J, & Izquierdo, 2017).

Likewise, in the sources of financing and working capital management, several researches emphasize that the strategy to achieve the operability of companies and their permanence in time is based on the normal execution of their operational activities in coordination and synergy between governmental institutions and the private sector (Briozzo et al. 2016; Rangel, 2012; Aguilar, Torres, & Salazar, 2017), so that the impact of scarce resources to finance smaller economic entities, achieve an operational financial management capable of managing the available cash that



contributes to adequate financing that minimizes costs and inventory management to increase the profitability of the organization.

The methodological strategy used in this research was appropriate, since the proposed objectives were fully executed: the companies in the sector were analyzed to determine the actual application of financial practices within the management of strawberry producing and marketing companies in the municipality of Sibaté, Cundinamarca. initially, through a documentary review, the main concepts of financial practices were related, studying their relevance in the regional economy, through the characterization of the financial management variables; On the other hand, a descriptive analysis was developed to identify such practices applied by the companies studied, finding important weaknesses in their management, realities related to cultural and idiosyncratic elements, as well as to the lack of financial resources and limited possibilities of competitive growth.

Therefore, the representatives of the companies in the sector under study should bear in mind that adequate financial practices strengthen the business fabric that generates well-being for the whole of society through regional development. This provision is the essential principle for the economic activity analyzed, without always having as a priority the returns for the invested capital, or the control of the activity and of the productive resources, because the synergy with society and the compliance with the rules and laws as a fundamental axis for the entrepreneurs can guarantee the patrimonial balance.

In general terms, this study recognizes the characteristics of the main financial management variables applied by the business units of the strawberry producing and marketing sector in the municipality of Sibaté, Cundinamarca. Based on the findings obtained, future lines of research are envisioned, including production chains, development of municipal, departmental and national policies for the regional development of the sector, social structure in the rural area of the intermediate municipalities, and guidelines that contribute benefits to both academia and the production sector.

Finally, it is important to recommend that this line of research should work from the variables that characterize the financial practices that lead to the regional development of any territory, providing specific results of the shortcomings and fears that entrepreneurs have when obtaining financial results in certain periods of time, finding opportunities for improvement in the daily operation of crops that increase the possibilities of control and investment.

## References

- Aguilar, J. G., Torres, S. G., & Salazar, A. A. (2017). Importance of efficient management of working capital in SMEs. Importance of efficient management of working capital in SMEs. *Ciencia unemi*, 10(23), 30-39. <https://doi.org/10.29076/issn.2528-7737vol10iss23.2017pp30-39p>
- Alcaldía de Sibaté (2018). Official portal of the municipality of Alcaldía de Sibaté - Cundinamarca, Colombia - "Motivos >Para Creer Y Avanzar". Retrieved from <https://www.sibate-cundinamarca.gov.co/Paginas/default.aspx>
- Álvarez, C. V., Ángel, C. P. J., & Osorio, A. G. (2018). Teaching-service: social responsibility in the training of human talent in health in Colombia. *Educación Médica*, 19, 179-186. <https://doi.org/10.1016/j.edumed.2017.08.002>. <https://doi.org/10.1016/j.edumed.2017.08.002>
- Angulo Sánchez, L. (2016). The effective management of working capital in firms. *Revista Universidad y Sociedad*, 8(4), 54-57.
- Arias-Gómez, J., Villasís-Keever, M. Á., & Novales, M. G. (2016). The research protocol III: the study population. *Revista Alergia México*, 63(2), 201-206.
- Belaïd, F., & Zrelli, M. H. (2019). Renewable and non-renewable electricity consumption, environmental degradation and economic development: evidence from Mediterranean countries. *Energy Policy*, 133, 110929.

- <https://doi.org/10.1016/j.enpol.2019.110929>.
- Boisjoly, R. P., Conine Jr, T. E., & McDonald IV, M. B. (2020). Working capital management: Financial and valuation impacts. *Journal of Business Research*, 108, 1-8. <https://doi.org/10.1016/j.jbusres.2019.09.025>.  
<https://doi.org/10.1016/j.jbusres.2019.09.025>
- Boisier, S. (2004). Territorial development and decentralization: Development in place and in the hands of the people. *Eure (Santiago)*, 30(90), 27-40. <http://dx.doi.org/10.4067/S0250-71612004009000003>
- Briozzo, A., Vigier, H., Castillo, N., Pesce, G., & Speroni, M. C. (2016). Financing decisions in SMEs: are there differences according to size and legal form? *Estudios gerenciales*, 32(138), 71-81. <https://doi.org/10.1016/j.estger.2015.11.003>.
- Chemkha, R., BenSaïda, A., & Ghorbel, A. (2021). Connectedness between cryptocurrencies and foreign exchange markets: Implication for risk management. *Journal of Multinational Financial Management*, 59, 100666. <https://doi.org/10.1016/j.mulfin.2020.100666>.  
<https://doi.org/10.1016/j.mulfin.2020.100666>
- DANE (2020). Search information. Retrieved from <https://www.dane.gov.co/index.php/en/>
- De la Hoz Granadillo, E. J., Herrera, T. J. F., & Gómez, J. M. (2014). Evaluation of the behavior of productivity and

- financial profitability indicators of the oil and gas sector in Colombia using discriminant analysis. *Contaduría y administración*, 59(4), 167-191. [https://doi.org/10.1016/S0186-1042\(14\)70159-7](https://doi.org/10.1016/S0186-1042(14)70159-7).
- Engel, L., Chui, A., Beaton, D. E., Green, R. E., & Dawson, D. R. (2018). Systematic review of measurement property evidence for 8 financial management instruments in populations with acquired cognitive impairment. *Archives of Physical Medicine and Rehabilitation*, 99(9), 1848-1875. <https://doi.org/10.1016/j.apmr.2018.02.004>.
- Escobar-Sierra, M., Lara-Valencia, L. A., & ValenciaDeLara, P. (2021). 'Step-by-step' method to conduct applied research in organizational engineering and business management. *Culture and Education*, 33(1), 28-77. <https://doi.org/10.1080/11356405.2020.1859735>.
- Municipal Agricultural Assessments (2019). Data. Retrieved from <https://www.datos.gov.co/Agricultura-y-Desarrollo-Rural/Evaluaciones-Agropecuarias-Municipales-EVA/2pnw-mmge>
- Ferrero, J. M. (2014). Consequences of sustainability practices on cost of capital and corporate reputation. *Journal of Accounting*, 17(2), 153-162. <https://doi.org/10.1016/j.rcsar.2013.08.008>
- Fragoso, J. T. (2015). Teorías en torno a la globalización y sus implicaciones para el desarrollo económico latinoamericano: Theories

- concerning the Globalization and its Implications for the Economic Latin-American Development. *Economía Informa*, 391, 32-53. <https://doi.org/10.1016/j.ecin.2015.05.003>.
- López-Rodríguez, C. E., Espinosa-Rodríguez, M. A., Lugo-Tochoy, M. G., & Muriel-Muñoz, M. M. (2022). Entrepreneurial profile of students and graduates of the specialization in financial management of UNIMINUTO. *Inclusion and Development*, 9(1), 13-23. <https://revistas.uniminuto.edu/index.php/IYD/article/view/2919>. <https://revistas.uniminuto.edu/index.php/IYD/article/view/2919>.
- López-Rodríguez, C. E., Barón, L. T., Pérez, K. T., & Canacué, L. F. (2020). Benefits and improvement opportunities for the internationalization of lulo marketing firms in Colombia. *Revista Economía y Política*, 55-71. <https://doi.org/10.25097/rep.n32.2020.03>.
- Manet, L. (2014). Regional development models: theories and determinants. *Nóesis: Journal of Social Sciences and Humanities*, 23(46), 18-57.
- Martínez Velázquez, N., & Dutrénit Bielous, G. (2019). Nature of innovation and business model in innovative entrepreneurship. *Problems of Development*, 50(199), 59-85. <https://doi.org/10.22201/iiiec.20078951e.2019.199.67649>
- Meleán, R., Moreno, R., & Rodríguez, G. (2009). Strategic cost management in the poultry industry of Zulia. *Negotium Magazine*, (13), 37-60.

- Nava Rosillón, M. (2009). Financial analysis: a key tool for efficient financial management. *Revista venezolana de Gerencia*, 14(48), 606-628.
- Nizam, E., Ng, A., Dewandaru, G., Nagayev, R., & Nkoba, M. A. (2019). The impact of social and environmental sustainability on financial performance: A global analysis of the banking sector. *Journal of Multinational Financial Management*, 49, 35-53. <https://doi.org/10.1016/j.mulfin.2019.01.002>.
- Olea-Miranda, J., Contreras, O. F., & Barcelo-Valenzuela, M. (2016). Knowledge absorption capabilities as competitive advantages for the insertion of SMEs in global value chains. *Estudios gerenciales*, 32(139), 127-136. <https://doi.org/10.1016/j.estger.2016.04.002>.
- UN (2019). Specific indices. Retrieved from <http://www.fao.org/faostat/es/#home>.
- Orazi, S., Martinez, L. B., & Vigier, H. P. (2019). Financial inclusion in Latin America and Europe. *Essays in Economics*, 29(55), 181-204. <https://doi.org/10.15446/ede.v29n5.5.79425>.
- Orozco, Á., & Rodríguez, C. E. (2017). Copazú and inclusive business, a socioeconomic strategy in Florencia-Caqueta. *Cooperativismo & Desarrollo*, 25(112), 40-56. <https://doi.org/10.16925/co.v25i112.2034>
- Posso, R. (2014). Concepts and principles of economics and methodologies used in economic research. *Tendencias*,

- 15(1), 228-241.  
<https://doi.org/10.22267/rtend.141501.58>
- Poveda, Rojas, Cabezas, Barajas, Cruz, (2020). Tecnología Emprendimiento e Innovación TEMNOVA. Colombia 2020. Editorial Scientometrics E Researching Consulting Group.
- Quiñonez, H. S. & Canal, G. Y. (2018). Classification by capital of a sample of microentrepreneurs in the Metropolitan Area of Bucaramanga based on Multiple Correspondence Analysis. *Ensayos de economía*, 28(53), 165-192.  
<http://dx.doi.org/10.15446/ede.v28n53.75018>
- Quirós, M. D., Quirós, J. L. & Izquierdo, J. D. (2017). Technology firms and regional development public policies in Brazil. *Problems of Development*, 48(190), 61-82.  
<https://doi.org/10.1016/j.rpd.2017.03.001>
- Rangel, M. B. (2012). Conceptual aspects on innovation and its financing. *Análisis Económico*, 27(66), 25-46.
- Recalde, L. M., Guevara, L. R. & Jaen, M. P. (2017). Entrepreneurs as creators of wealth and regional development. *Revista Publicando*, 3(9), 564-578.
- Rello, F., & Saavedra, F. (2013). Productive diversification and structural transformation in Mexico: case studies of three regions. *Economic Research*, 72(284), 111-129.  
[https://doi.org/10.1016/S0185-1667\(13\)72594-3](https://doi.org/10.1016/S0185-1667(13)72594-3).
- Rodríguez, F. B., Gómez, H. M. & Valencia, J. C. (2013). Local business networks, research and development and innovation in the firm. Caldas tool cluster, Colombia. *Estudios*

- gerenciales*, 29(127), 247-257.  
<https://doi.org/10.1016/j.estger.2013.05.013>
- Rodríguez, J. M. (2014). The contribution of collective actions to regional development from a social law perspective. *Constitutional Issues*, 30, 59-89.  
[https://doi.org/10.1016/S1405-9193\(14\)70459-7](https://doi.org/10.1016/S1405-9193(14)70459-7).
- Romero-Muñoz, J., Fonseca-Cifuentes, G., & Blanco-Mesa, F. (2021). Analysis of financial knowledge levels using the OWA operator: Boyacá case, Colombia. *Revista Escuela de Administración de Negocios*, (91). :  
<https://doi.org/10.21158/01208160.n91.2021.3091>
- Serrano, A. M., Tiuzo, S. C., & Martínez, M. S. (2019). Entrepreneurial strategies for a Vulnerable Population in Colombia. *Technological Information*, 30(6), 147-156.  
<http://dx.doi.org/10.4067/S0718-07642019000600147>
- Van Raaij, W. F., Antonides, G., & De Groot, I. M. (2020). The benefits of joint and separate financial management of couples. *Journal of Economic Psychology*, 80, 102313.  
<https://doi.org/10.1016/j.joep.2020.102313>
- Vecino, C. E., Rojas, S. C., & Munoz, Y. (2015). Financial investment appraisal practices in Colombia. *Estudios Gerenciales*, 31(134), 41-49.  
<https://doi.org/10.1016/j.estger.2014.08.002>