

The use of financial information in the business management of SMEs in Colombia

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ABSTRACT The economic development of the regions depends to a great extent on management skills. **Objective.** To determine the level of use of financial information by SMEs in Boyacá in their economic management. **Methodology.** The method used is quantitative, based on the business bases of the chambers of commerce, classified as group II in the implementation of the IFRS. 159 entrepreneurs were surveyed, 86 % of which were small and 14 % medium-sized companies. **Results.** 44 % of the SMEs in Boyacá do not have an integrated accounting information system; 53 % generate comparative financial statements, but only 36 % of them do so for decision-making purposes and the remaining 64 % consolidate accounting reports for reporting to control entities, contracting and financing procedures. Regarding the IFRS implementation process, 33 % already apply the international regulatory framework, and the remaining 67 % have started its implementation, but do not apply it completely. **Conclusion.** A low level of use of economic-financial information for decision making was detected.

KEY WORDS IFRS implementation, financial information, business management, SMEs, decision making, use of financial information.

El uso de la información financiera en la gestión de las pymes colombianas

RESUMEN Las competencias gerenciales juegan un papel importante en el desarrollo económico de las regiones. **Objetivo.** Evaluar el uso que hacen las pymes de la información financiera para la gestión económica en Boyacá (Colombia). **Metodología.** El estudio aplica un método cuantitativo sustentado en las bases empresariales de las cámaras de comercio, clasificadas como grupo II en la implementación de las NIIF. **Resultados.** El 44 % de las pymes de Boyacá carece de un sistema integrado de información contable; el 53 % presenta estados financieros comparativos, pero solo el 36 % lo hace para la toma de decisiones. El 64 % restante consolida informes contables para reportar a antes de control y para efectos de contratación y financiación. En cuanto a la adopción de las NIIF, el 33 % de las empresas ya ha aplicado el marco normativo internacional; mientras que el 67 % restante no lo ha aplicado completamente. **Conclusiones.** Se identificó que la información económico-financiera es escasamente utilizada para la toma de decisiones.

PALABRAS CLAVE implantación de las NIIF, información financiera, gestión empresarial, pymes, toma de decisiones, uso de la información financiera.

O uso da informação financeira na gestão das PMEs colombianas

RESUMO As habilidades gerenciais desempenham um papel importante no desenvolvimento econômico das regiões. **Objetivo.** Avaliar o uso que as PMEs fazem da informação financeira para a gestão econômica em Boyacá (Colômbia). **Metodologia.** O estudo aplica um método quantitativo baseado nas bases de negócios das Câmaras de Comércio, classificadas como grupo II na implementação do IFRS. **Resultados.** 44 % das PMEs de Boyacá carecem de um sistema integrado de informação contábil; 53 % apresentam demonstrações financeiras comparativas, mas apenas 36 % o fazem para tomada de decisão. Os restantes 64 % consolidam relatórios contábilísticos para reporte às entidades de controle e para efeitos de contratação e financiamento. Em relação à adoção do IFRS, 33 % das empresas já aplicaram o marco regulatório internacional; enquanto os 67 % restantes não o aplicaram totalmente. **Conclusões.** Identificou-se que as informações econômico-financeiras são pouco utilizadas para a tomada de decisão.

PALAVRAS CHAVE implementação de IFRS, informação financeira, gestão empresarial, PME, tomada de decisão, utilização de informação financeira.

Introduction

SMEs represent more than 90 % of the total number of companies in the world (UN, 2021), 99 % in the European Union and 99 % in Colombia. Therefore, their importance at the economic level is unquestionable both in the generation of employment (about 70 % of the world population and about 98 % of formal employment in Colombia) (DANE, 2021), as well as in the contribution of taxes for the redistribution of wealth in society (Basit, 2021). For these reasons, this study contributes to the achievement of SDG 8 (promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all), and 9 (promote sustainable industrialization and foster innovation).

In the survival of SMEs, the implementation and intensive use of financial information (Ramírez-Urquidy, Aguilar-Barceló and Portal-Boza, 2018) has been established as a key factor for proper management of tangible and intangible assets of firms. However, the study on the level of use of such information by SMEs in Colombia is a pending matter.

The management from the analysis of financial statements constitutes the tool that allows a diagnosis of how cash has been managed (Kropivšek and Grošelj, 2019), and in general the corporate economic situation; it allows to identify the cost of capital, perform fiscal management, facilitates the measurement of performance and plan the strategy (Sherman, 2015; Lu and Caishigang, 2018). Moreover, according to Hussain, Salia and Karim (2018), financial education and management are the basis for success in business management and specifically the financial area of small and medium enterprises and favour's the duration, solvency and competitiveness (Nguyen and Chien, 2021), contributing to economic growth, employment generation (Rueda y Rueda, 2017), and, therefore, to development (Shashi et al., 2019).

Therefore, given the strategic importance of the use of financial information and its scarce management and application in SMEs for business decision making (Forrest et al., 2021); together with the high participation of SMEs in the economies, it

becomes relevant to analyze the level of use and application of financial information in SMEs in Colombia to diagnose their current status, identify their potential and challenges (Almanza, Calderón y Vargas, 2020).

Boyacá is part of the Andean Region in Colombia, a pioneer in the concentration of SMEs and the department with the greatest growth potential given its proximity to Bogotá and its specialization in agricultural SMEs, mainly. Therefore, this research seeks to answer the question: How much is the financial information of SMEs in Boyacá used in decision making and business management? The hypothesis is that the low level of use of financial information for decision making is detrimental to business performance.

The following objectives were proposed: (i) To identify the level of access to information and communication technologies —ICT— for economic-financial management in the SMEs of Boyacá, which according become essential in business management; (ii) to reveal the percentage of SMEs in Boyacá that apply the IFRS parameters, in the administration of economic-financial information. A relevant aspect for the quality of the information (La Macchia et al., 2017; Hýblová, 2019); (iii) determine the level of application of financial analysis as a diagnostic for economic-financial decision-making and the level of knowledge in this area.

To achieve these objectives, a quantitative methodological strategy was proposed, applying a convenience sampling to 159 entrepreneurs of SMEs from various sectors and economic activities in the department of Boyacá. A structured survey was applied based on the study by Hussain, Salia and Karim (2018).

The rest of the paper is constituted as follows: The methodology, presents in detail the materials and methods applied during the study. The results, describes the circumstances identified in relation to the stated objectives. The discussion compares the results obtained with those of similar studies. And the conclusions, describe the contribution of the research towards a more efficient management in the companies.

Methodology

This research applied the quantitative method with a convenience sampling technique. The obtaining of the information took as a starting point the database of active SMEs of the three chambers of commerce of Boyacá; from which a population of 929 SMEs is established, classified as group II according to Law 1314 of 2015, or regulatory

framework of International Financial Reporting Standards —IFRS— in Colombia.

For the selection of the sample, obtaining the accounting figures and the analysis was taken as a basis, the research methodology applied by Špička and Kontsevaya (2016). Table 1 describes the size of the population and sample.

Table 1. Selection of the Sample of Small and Medium-Sized Enterprises

Chamber of Commerce	Company size	Population by capital/province	Sample
Tunja	Small	330	54
	Medium	47	10
Duitama	Small	265	49
	Medium	57	7
Sogamoso	Small	207	34
	Medium	23	5
Total SMEs Boyacá		929	159

Note: This table present the small and medium enterprises of Boyacá, in active status as of 2019; in accordance with the classification given from Decree 957. From the population determined, the representative sample was extracted.

Source: author own elaboration.

The instrument for the collection of information was through a structured survey, based on the studies of León and Contreras (2013), and Shamin and Yanping (2018), since they have similar objectives to that of this study. Said instrument was previously submitted to expert consideration, and subsequently sent to the e-mails subscribed in the business registries of the chambers of commerce.

The variables selected were: Use of integrated accounting software and management of operational assets (especially inventories); application or implementation of the IFRS regulatory framework (Law 1314 of 2015); financial analysis and comparison with previous years; and projection of goals and follow-up.

Reliability was verified through Cronbach's Alpha coefficient, with which the correlation

between the variables consulted was facilitated (Soler y Soler, 2012); once 32 responses (20 %) were obtained, a high level of consistency in the responses obtained has been verified and determined. At the end of the data collection, the tabulation was automated, facilitating the analysis through a spreadsheet.

The approach for the analysis of the information obtained and the presentation of the results was mixed, based on quantitative data, and presented in a descriptive manner; likewise, the method used, has a propositional scope, because strategies are proposed for the best use of the information in the financial statements, seeking an improvement to the negative results identified (Gitelman and Kozhevnikov, 2017).

Results

Characterization of the SMEs in Boyacá

The companies targeted by the study were the for-profit SMEs active as of 2019 in Boyacá. These economic organizations are mostly presented as small economic units in accordance with the number of workers linked and operational income, representing 86 % of the 159 entities that answered the survey; the remaining 14 % are medium-sized companies, with a more consistent organizational structure and broader capacity to provide employment.

Among the multiple economic activities carried out by the companies, they are classified in the three economic sectors (Figure 1), with 45 % being service companies, including private universities, hotels, construction companies, and tourism agencies, among others.

In second place, with 42 %, are the commercial companies, represented by marketing companies of different products, distributors of medicines and medical equipment, warehouses, vehicle dealerships, restaurants, among others. Lastly, the industrial sector, with 21 % of the total, includes brick factories, textile companies, mineral extraction and chemical industries.

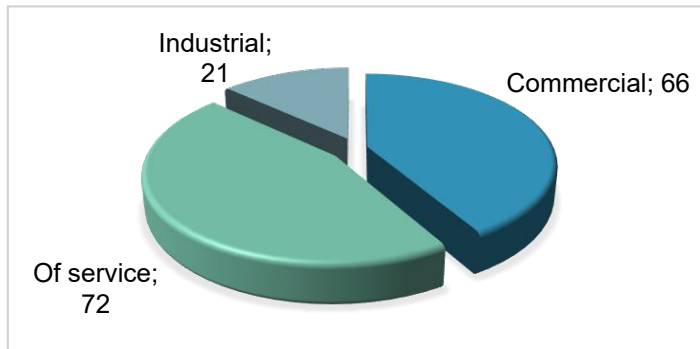


Figure 1. Economic sectors of SMEs in Boyacá. Source: author own elaboration.

In terms of legal form (Figure 2), there is a concentration of simplified joint stock companies (SAS) with 88 entities, followed by 59 organizations

established as natural persons and, finally, 12 limited companies.

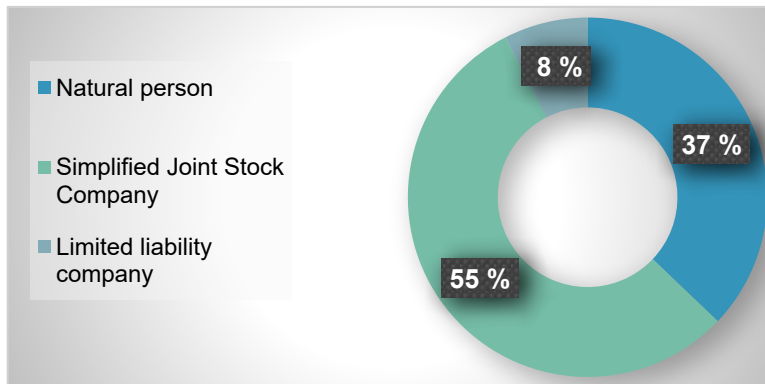


Figure 2. Legal form of SMEs in Boyacá. Source: author own elaboration.

Management of economic-financial information through ICTs

Companies, regardless of their size, have developed or adapted information systems to support the processes and transactions that occur daily in the business (Hýblová, 2019), through the research it could be established that (80 SMEs) keep their accounting in spreadsheets such as Excel and the other 79 use accounting software.

However, taking into account the need to manage information with IFRS standards, and obtaining financial statements for both special or management purposes, as well as general purpose (Salehi et al., 2019); it was relevant to know the level of access; finding that 56 % have an integrated accounting information management system, regardless of whether it is managed through spreadsheet or software; resulting then, that 44 % of entrepreneurs, do not have integrated software; this brings as a consequence, that different databases must be managed to consolidate information on sales, costs, payroll, taxes, inventories, fixed assets, treasury control, among other functions.

The processing of sales and purchase data, the recording of expenses, among other transactions, is mainly done in order to issue auxiliary books to support periodic tax returns and the presentation of exogenous information, both to the national and local tax authorities.

Progress in the implementation and application of IFRSs

As already stated, accounting information and, consequently, financial statements are the basis for financial analysis and management; in order for this information to be useful for decision

making, it is prudent to comply with the basic characteristics. Currently, it is required that the information disclosed through the financial statements be prepared and presented applying the international regulatory framework for SMEs, recognized as International Financial Reporting Standards (IFRS for SMEs), complying, among others, with qualities such as reliability, relevance, truthfulness, understandability and comparability; these characteristics facilitate the interpretation of the information, the internal and external comparison: the internal comparison allows verifying the evolution of the figures from one period to another, and the external comparison leads to the comparison between companies in the sector and the formulation of competitive strategies.

Based on the information obtained, it is revealed that 33 % of the entrepreneurs already apply the international regulatory framework, while 67 % are in the process of implementation.

On the application of financial analysis and the use of information in economic management

It was determined that in the companies of Boyacá, the information contained in the financial statements is mainly used for external purposes and compliance with regulations, such as updating the registration in the chamber of commerce, reports to control entities, updating information with banks, suppliers and, among others. It is also used to comply with bidding requirements for contracting and in some cases for access to financing.

In order to contextualize the way in which financial information is managed, Figure 3 is shown below:

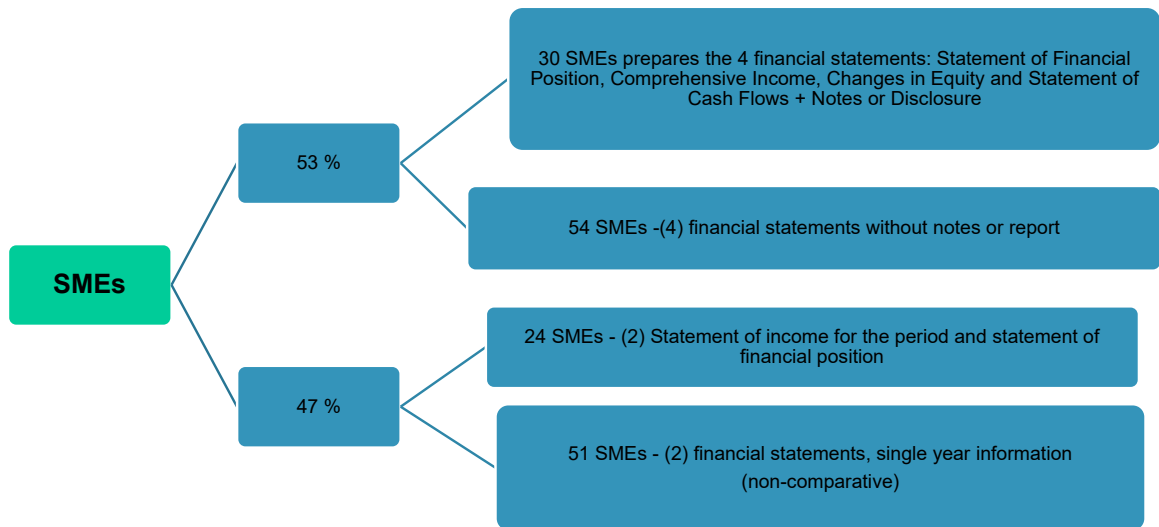


Figure 3. Particularities of the annual financial information. Source: author own elaboration.

This schematization shows that only 53 % of the SMEs generate the four annual comparative general purpose financial statements, but only 30 of these companies present them together with their notes or annual report, leaving 54 companies without the detail of the disclosures. Likewise, the resulting 47 % prepare only the statement of income for the period and the statement of financial position; of this group, 68 % (51 SMEs) do not present comparative information, that is, for the year to be reported with respect to the immediately preceding year, which indicates non-compliance with the international standards for the presentation of financial statements for SMEs (Section 3 of IFRS for SMEs).

When contrasting these answers with the one related to the production of a financial analysis report, a certain deviation was found; however, 36 % of the respondents indicated that they had access to the mentioned report or were aware of it. However, in order to apply the horizontal analysis tool, it is necessary to have comparative financial information from previous periods, which suggests that the percentage of application of the economic-financial diagnosis may be much lower.

Based on the above corollaries, there is evidence of a tendency to underutilize the information in the financial statements as an input for decision-making in small and medium-sized enterprises.

On the other hand, the level of access to information and communication technologies is limited; although all the SMEs consulted have computer equipment, it was verified that not all of them have permanent access to the Internet, 45 % have begun to issue electronic invoicing, only 4 of the companies have a web page. None of them use the QR coding system for inventory management and only 37 % manage their merchandise stock with the permanent system, that is, they load or unload the units with purchases and sales in each of their establishments or branches. When contrasting this data with the percentage of companies that have integrated software, apparently there is a distortion, however, when comparing the answers in relation to the economic activity, it was detected that 19 % of the difference is originated by those companies that are dedicated to the provision of services, which having integrated software, do not require managing stocks.

Discussion

The study made it possible to identify incidences related to the presentation of financial statements, in accordance with Figure 3; likewise, to highlight the presence or not of tools for the administration of accounting information, with the insufficiencies already described, which lead to the perception that the level of compliance or application of international financial reporting standards is deficient.

In correspondence with the results presented, it can be affirmed that the proportion in which the information contained in the financial statements of the SMEs of Boyacá is used for decision making ranges between 19 % (percentage of companies that generate the four financial statements and the notes) and 36 % (percentage of entrepreneurs that affirm that they obtain the financial analysis report), which is significantly low; this is attributed to four factors:

(i) The information generated through financial statements in 67 % of SMEs, does not comply with IFRS parameters and, therefore, with the quality required to be the adequate basis for financial analysis; since, in order to generate reliable and comparable indicators, compliance with the information attributes referred to above is required. This criterion correlates with Rodríguez (2016) who conducted an analysis of 137 references, 17 of them related to financial management; the author identifies situations of insolvency or lack of liquidity, which are associated with the absence of policies in the financial area for the management of cash, accounts receivable among other assets; similarly, lack of planning and lack of knowledge of managers regarding the proper management of resources. In the IFRS implementation processes, once the business diagnosis has been made, the step to follow, precisely, is the implementation of policies consistent with the organizational needs, and coherent with international standards, to which compliance is given in the transactional evolution of the company as Hýblová (2019) sustains.

(ii) 64 % of the entrepreneurs do not prepare or ask their accountants to present a financial report that serves as a diagnosis for the formulation of

the budget, the design of strategic objectives and the setting of goals to be followed and controlled. This finding is contrasted with the deduction of the study presented by Kengne (2015), Ramírez-Urquidy, Aguilar-Barceló and Portal-Boza (2018), in which the relationship between the financial report and management is analyzed; identifying some weaknesses, such as lack of investment, monitoring and implementation of innovation. These similar circumstances were observed especially in manufacturing companies, which, brings as a consequence scarce new project. In service companies, although external competencies are developed, there is no evidence of resource management for the generation and promotion of new ideas that promote the growth of the economic units.

According to a study for Shamin and Yanping (2018), the owners of SMEs that make use of financial statements in decision making have greater capacity and experience. With the above, the importance of analyzing this information and projecting goals based on the results obtained is evident. This stage is followed by execution and analysis, to give way to control and decision making, thus achieving a cyclical management.

Similarly, an analysis to evaluate the improvement of financial indicators in companies in the mineral extraction sector, compared indicators from two periods, finding significant improvements in ROA (Return on Assets), asset turnover, level of indebtedness —NE—, which served as a reference for decision making (De La Hoz, Fontalvo y Morelos, 2018). Once again, the importance of performing a financial diagnosis is demonstrated, making use of the different economic-financial tools, to plan management and project goals with measurable indicators, which will allow the monitoring and control of financial management.

The consolidation of accounting or financial reports is carried out in principle to comply with fiscal, legal or external control regulations. A high percentage does not comply with IFRS parameters. Under this context, it is admissible to defer that while there is a wide development of knowledge in financial analysis and management through bibliographic sources, small and medium-sized companies in Boyacá are not applying these notions in their strategy towards

business performance. There is also a lack of knowledge of the financing lines offered by banks, such as leasing, factoring, “second-tier banks” and lines of credit to SMEs. Likewise, according to the study in Boyacá by Romero and Vega (2015) the circumstances of financial area were evaluated, categorizing factors such as accounting and tax management, cost management and environment, analysis and financial management. Although in the first two, it obtained a good classification; in the financial area, it presents a dwindling proportion of companies that make financial analysis and report to the partners.

Internal management is fundamental, it takes into account the adequate use of resources, measurable through the cost systems, and at the end of the period, it is possible to calculate the gross margin as the ratio of gross profit divided by net sales. If a proper review and incorporation of production costs has been carried out, this indicator helps to visualize the contribution in percentage terms that was obtained with respect to the income of the operation. For its part, the operating margin and the Ebitda, contribute to visualize the capacity of the economic entity to generate profits and cash flows, respectively (Ortiz, 2018).

(iii) Access to information and communications technology —ICT—, is moderate; although, the use of computers and smart cell phones is widespread, not all companies use these means to boost sales and manage stocks; neither is it applied for proper customer service through pre- and post-sales service; this could be stimulated with specific coding or the use of QR codes, with data on location, balances, specifications of items that make up the property plant and equipment or merchandise of the businesses. In agreement with Pérez, Urquía and Rautiainen (2018), the assertion that the use of ICT, can be a determining factor in the growth of small businesses and regional economic development is supported. Likewise, software for business management is a fundamental tool for organizations.

Consequently, it is necessary for entrepreneurs of Boyacá to project their companies to both the domestic and foreign markets, taking care of their image, both for their customers and specially to identify their weaknesses from within, in order to work to overcome them and turn them into opportunities. Having the ability to envision a

future of growth for their companies, either by expanding their institutional capacity, expanding geographically, or innovating with products or services that offer comparative advantages (Shashi et al., 2019).

All these growth prospects require investment, and this is where financial management acquires a relevant role, starting with the diagnosis and review of the financial statements and identifying the results of the fiscal year (Ganga-Contreras et al., 2015), in order to decide how to allocate profits towards the constitution of reserves and the investment of the expansion, renovation or growth objectives that have been set (Diegtiar et al., 2021). However, at this point, demotivation may arise when finding that the available resources may not be enough to cover the projected investments, it is then the time to make room for multiple sources of financing, both those offered by the financial sector, as well as those originated by the expansion in the portfolio of suppliers, new placements of the partners or incorporation of new investors, among other options.

These initiatives are also supported by Špička and Kontsevaya (2016), who show that companies that generate higher profitability, in the case study of the dairy sector, have a more organized cost management, have greater advances in production technologies, among other factors, but also their capital structure is focused on long-term financing and shareholder investment. Therefore, in companies that are more financially strengthened, and leveraged by long-term financing, liquidity is not a problem, on the contrary, SMEs have working capital that allows financing technologies needed in their production processes and, in turn, favour the generation of economic returns on investment, increasingly significant; these statements are supported by Dungey, Doko and Yanotti, (2018).

Taking into consideration the precisions obtained through the study, it is considered unavoidable to implement training strategies and appropriation of financial knowledge by managers and owners of SMEs (Eniola and Entebang, 2017), in order to be adapted to the needs of each entity, facilitating the budget projection, strategic planning and monitoring of the proposed goals, so that in the future, business development and economic growth of the region can be evidenced.

It is promoted that businessmen contribute with information from accounting students, who are formulating their degree projects, and who can apply their knowledge in finance, for the benefit of business progress and in this way produce research with propositional scope and high degree of usefulness; with which, the trend identified in a previous work by Molina, Tobón and Fonseca (2019), in which a very low incidence of university accounting research was found in the companies in which it was applied, would be counteracted.

Likewise, the subject treated in this research opens the doors to new studies that allow detecting the influence of the economic-financial management practices, treated in this study, as well as of the financial education, capital structure and investment strategies, supported by several authors.

Limitations related to the method of application of the instrument through virtual means are recognized, since it could be glimpsed that, in several cases, the answers were given by the same accountants of the organizations, and not by the owners or managers, who in principle were the ones summoned. This situation generates a bias to be taken into account, since, being the accounting consultant, the one responsible for the financial information of the company (Lechuga et al., 2018) the shortcomings in his professional practice are not always highlighted; however, neither did the study try to reach criticism in the performance of the accounting consultant's work (Tahat and Alhadab, 2017).

In future related studies, it is prudent to directly contact the administrators, either in their role as directors or owners, in order to achieve the maximum attainment of the objective, transversal to this research. However, with the information obtained and analyzed, it is possible to confirm the hypothesis raised, about the low level of use of financial information for decision making and to attribute the circumstances identified, both to the lack of knowledge of the usefulness of the information in investment and financing decisions, and to the lack of agreement with financial consultants, the presentation of a report and support in financial management.

To control what was predicted in the confirmed hypothesis, it is sought to raise awareness among entrepreneurs about the usefulness of financial information in decision making, encouraging the use of horizontal and vertical analysis tools and the application of financial ratios or indicators, as a fundamental input the financial diagnosis; which serves as a basis for the formulation of the budget, management plans and economic decision making (Martínez-Martínez et al., 2017), that support the growth of businesses and prevent them from losing competitiveness (Tascón, Castaño and Castro, 2018). All this supported by their accounting and/or financial advisors.

Conclusions

At least 64 percent of SME entrepreneurs do not make, nor do they ask their accounting advisers to present a financial report. Therefore, this high number of companies do not make use of economic and financial information in decision-making, which must begin by evaluating performance, formulating the budget, establishing strategic objectives and setting goals to follow and control.

The information presented through the financial statements of SMEs, 67 % does not comply with international financial information standards; and therefore, it does not have the quality required to be the adequate basis for financial analysis and business decision making.

The consolidation of accounting or financial reports is carried out in principle, to comply with regulations of a fiscal, legal or external control nature. It is promoted to change this paradigm and begin to give a real utility to financial reports, take advantage of the advancement of access to information, and learn about economic-financial management issues, in order to project companies to growth and development.

Finally, it is convenient to take greater advantage of ICT, especially to benefit the relationship with customers, which are the fundamental axis of business development.

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