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Scientific articles

El desempeño financiero empresarial en el estado de Zacatecas su relación con la planeación estratégica y las prácticas de gestión financiera

***Business financial performance in Zacatecas state: relationship with
strategic planning and financial management practices***

***O desempenho financeiro das empresas no estado de Zacatecas e sua
relação com o planejamento estratégico e as práticas de gestão financeira***

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Resumen

La falta de una planeación estratégica centrada en la gestión financiera representa un desafío crítico para las empresas en la ciudad de Zacatecas. Una gestión financiera ineficaz puede originar la pérdida de valor económico y organizacional de las empresas, incrementando significativamente la tasa de mortalidad empresarial. El objetivo principal de este trabajo fue examinar la correlación existente entre la planeación estratégica, las prácticas de gestión financiera y el desempeño financiero empresarial del estado. Para llevar a cabo este análisis, se recopilaron datos de un total de 48 empresas, principalmente micro, pequeñas y medianas (MIPYMES). Se utilizó el software IBM SPSS Statistics como herramienta de análisis estadístico, mediante el cual se aplicó el análisis factorial y de correlación entre las variables de estudio. Entre los resultados más relevantes se encontró una correlación estadísticamente significativa entre el desempeño financiero empresarial y las prácticas de gestión financiera. Estos hallazgos muestran la relevancia de integrar la planeación estratégica como eje central en la gestión empresarial y financiera, especialmente en el contexto de las MIPYMES, donde la optimización de recursos y la toma de decisiones estratégicas pueden marcar la diferencia en su sostenibilidad y crecimiento.

Palabras Clave: desempeño financiero empresarial, planeación estratégica, gestión financiera, MIPYMES.

Abstract

The lack of strategic planning focused on financial management poses a critical challenge for businesses in Zacatecas. Ineffective financial management can lead to the loss of economic and organizational value, significantly increasing the business mortality rate. The main objective of this study was to examine the correlation between strategic planning, financial management practices, and corporate financial performance within the state. To conduct this analysis, data were collected from a total of 48 companies, primarily micro, small, and medium-sized enterprises (MSMEs). IBM SPSS Statistics software was used as the statistical analysis tool, through which factor analysis and correlation analysis were applied to the study variables. Among the most relevant findings, a statistically significant correlation was identified between corporate financial performance and financial management practices. These results highlight the importance of integrating strategic planning as a central component of business and financial management, particularly in the

context of MSMEs, where resource optimization and strategic decision-making can make a substantial difference in sustainability and growth.

Keywords: corporate financial performance, strategic planning, financial management, MSMEs.

Resumo

A falta de planejamento estratégico com foco na gestão financeira representa um desafio crítico para as empresas na cidade de Zacatecas. A gestão financeira ineficaz pode levar à perda de valor econômico e organizacional para as empresas, aumentando significativamente a taxa de falência. O principal objetivo deste estudo foi examinar a correlação entre planejamento estratégico, práticas de gestão financeira e desempenho financeiro empresarial no estado. Para realizar essa análise, foram coletados dados de um total de 48 empresas, principalmente micro, pequenas e médias empresas (MPMEs). O software IBM SPSS Statistics foi utilizado como ferramenta de análise estatística, aplicando análise fatorial e análise de correlação entre as variáveis do estudo. Entre os resultados mais relevantes, foi encontrada uma correlação estatisticamente significativa entre o desempenho financeiro empresarial e as práticas de gestão financeira. Esses achados demonstram a importância de integrar o planejamento estratégico como eixo central na gestão empresarial e financeira, especialmente no contexto das MPMEs, onde a otimização de recursos e a tomada de decisões estratégicas podem fazer toda a diferença em sua sustentabilidade e crescimento.

Palavras-chave: desempenho financeiro empresarial, planejamento estratégico, gestão financeira, MPMEs.

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Introduction

To the best of the authors' knowledge, this study represents one of the first empirical investigations of this kind conducted in the state of Zacatecas. The results provide valuable information to Zacatecas-based micro, small, and medium-sized enterprises (MSMEs) and similar businesses regarding the importance of strategic planning and financial management, and their potential impact on financial performance. Furthermore, it could support decision-makers in designing policies that promote strategic planning and financial management, thereby contributing to the state's economic development.

This study analyzes micro, small, and medium-sized enterprises (MSMEs) in the trade and services sectors, which are the two main economic activities in the country after manufacturing, according to the latest census by the National Institute of Statistics and Geography (INEGI) (2020), representing 42.20% of the total. In terms of employment, services rank first at 37.5%, followed by trade at 27.6%, making them the sectors with the highest number of employees nationwide. In today's business world, many companies face difficulties staying afloat and growing sustainably. This situation is particularly concerning when we observe that business failure is frequently attributable not to insufficient ideas or products. But to inadequate financial resource management.

According to the National Statistical Directory of Economic Units (DENUE) of the National Institute of Statistics and Geography (INEGI, 2024), the state of Zacatecas has 69,637 economic units, making it one of the states in Mexico with the fewest establishments. At the national level, retail trade is the sector with the highest number of registered economic units, totaling 2,122,600 (INEGI, 2024).

It should be noted that, according to INEGI (2020) data, the state of Zacatecas belongs to the Central-Western region, and according to the 2019 Economic Census, the commercial sector accounts for 22.9% of economic units, 22.8% of employment, and 19.4% of income. Of these units, 96.5% are micro-enterprises, 2.5% are small, 0.7% are medium-sized, and 0.2% are large. Regarding employment, 62% is concentrated in micro-enterprises, 12.8% in small, 11.1% in medium-sized, and 14.1% in large companies.

The service sector accounts for 23.5% of businesses, 18.9% of employment, and 14.1% of total revenue, of which 95.2% are micro-enterprises, 4.1% small, 0.4% medium-sized, and 0.3% large. Regarding employment, 48.9% is concentrated in micro-enterprises, 17.8% in small, 5.7% in medium-sized, and 27.6% in large enterprises.

Furthermore, it is essential to consider that the strategic management process is a set of commitments, decisions, and actions that a company requires to achieve strategic competitiveness and obtain above-average performance. To achieve this, the first step is to analyze both its external and internal environment (Kitsios et al., 2019).

Planning constitutes a structured form of decision-making through which managers define the desired future state of their organizations. To achieve this, specific and measurable goals must be established, with a set deadline for their completion (Gomera et al., 2018; Mora et al., 2015). These goals provide a sense of direction for achieving the proposed objectives, allow for focused efforts by setting priorities, guide plans and

decisions, and serve to evaluate progress as a fundamental part of control. There are two main types of plans: strategic plans, designed by senior managers who define the overall goals of the organization, and operational plans, which contain the details for implementing the daily activities that the organization must carry out (Williams et al., 2020).

This study aims to analyze and describe how financial performance correlates with strategic planning and financial management through investment, financing, and profit distribution decisions in companies in Zacatecas, primarily measured by profit generation and market presence. It seeks to answer the question of whether a real and measurable correlation exists between companies' financial performance and their strategic planning and financial management practices. More specific questions include: Do companies that plan strategically have better financial performance? How important is it to integrate financial management into strategic planning? Is this relationship especially critical for micro, small, and medium-sized enterprises (MSMEs) in Zacatecas?

The research hypothesis posits that effective strategic planning practices and financial management are positively and significantly correlated with business financial performance in MSMEs in Zacatecas. It is further proposed that improved strategic financial management is associated with lower business failure rates and greater value creation. This perspective aligns with the findings of Gomera et al. (2018), who found a significant relationship between strategic planning and financial performance in small and medium-sized enterprises.

In examining the responses to the questionnaire administered to the selected companies, beyond reviewing and/or establishing their vision, mission, and values, the study verified whether they tend to achieve growth and higher profits, thereby ensuring their continued presence in the market and generating financial value. More specifically, the study sought to verify whether managerial decisions generate financial value; that is, it is important to analyze whether the companies make decisions that lead to profits exceeding the cost of capital. As Gaytán (2021) points out, financial strategy must be based on sound theories and models that guide decision-making toward maximizing business value.

Financial theorists have widely argued that the objective of decision-making is to maximize firm value (Ross et al., 2018; Brealey et al., 2020). This foundational premise motivates the present investigation, which seeks to determine whether firms can increase their profits and generate value through the application of strategic planning and sound financial management practices. In an increasingly competitive and dynamic business

environment, organizations are constantly seeking strategies to improve their financial performance and ensure their long-term sustainability (Williams et al., 2020). In this sense, strategic planning and financial management practices have become fundamental tools for achieving these objectives (Mayett et al., 2022; Musah et al., 2018). Gaytán (2021) maintains that a financial strategy, based on established theories and models, is a critical element for creating business value.

Strategic planning allows companies to establish a clear vision of the future, define specific objectives, and develop action plans to guide them (Williams et al., 2020). Through an analysis of the internal and external environment, companies can identify opportunities and threats, as well as strengths and weaknesses, enabling them to make timely decisions aimed at achieving their goals (Mora et al., 2015).

Leyva et al. (2018) argue that strategic planning is a fundamental internal factor in the competitiveness of MSMEs, as it facilitates the alignment of resources and capabilities with the demands of the environment. On the other hand, Kitsios et al. (2019) identify that the critical factors of strategic planning include the systematic analysis of the organizational context, allowing companies to proactively adapt to market changes.

According to Saavedra et al. (2016), financial management in SMEs presents particular characteristics that require special attention, particularly in the Mexican context. Furthermore, García et al. (2019) provide an analytical framework that identifies the main problems and diagnostic perspectives in the financial management of small and medium-sized enterprises.

The relevance of this research lies in the specific context of micro, small, and medium-sized enterprises (MSMEs) in Mexico, where, according to Dini and Stumpo (2018), these businesses exhibit fragile performance that requires new approaches in development policies. The situation has become more critical considering the impact of COVID-19 on business demographics, as documented by INEGI (2022) in its analysis of MSME establishments during the pandemic. Specifically, regarding the city of Zacatecas, INEGI (2021a) provides relevant information on the region's geographic and economic aspects, while data on Gross Domestic Product by state (INEGI, 2021b) demonstrate the region's economic importance and the need to strengthen local business performance.

Therefore, this study aims to demonstrate that synergy between strategic planning and financial management is not only possible but also essential for companies seeking to improve their financial performance in a competitive market, offering business leaders in

Zacatecas tools and strategies to boost the growth and sustainability of their organizations. This perspective is supported by research such as that of Mayett et al. (2022), which analyzes financial management and performance in Colombian and Mexican SMEs, providing empirical evidence of the importance of these practices in the Latin American context.

Materials and methods

The research unit comprises companies located along the heavy traffic bypass in the municipality of Guadalupe, Zacatecas, classified as MSMEs according to the number of employees (INEGI, 2020). In addition, three large enterprises (>100 employees) that participated in the pilot test were retained in the final sample due to the significance of their responses for instrument validation purposes. Their inclusion is acknowledged as a limitation.

The investigation is quantitative, using data collection to test hypotheses based on numerical measurement and statistical analysis, to establish patterns of behavior and test theories (Hernández et al., 2019). This methodological approach is consistent with empirical studies conducted in the context of MSMEs, where its effectiveness in analyzing relationships between financial and strategic variables has been demonstrated (Musah et al., 2018; Sooriyakumaran et al., 2022).

In the specific context of the study conducted in the municipality of Guadalupe, Zacatecas, questionnaires were administered in person to micro, small, and medium-sized enterprises (MSMEs) through direct interviews. This in-person methodology has been successfully used in similar research on financial management in MSMEs (García-Pérez and Juárez-Lugo, 2017; Saavedra et al., 2016).

The approach adopted in this research is non-experimental and cross-sectional (Hernández et al., 2019), since the study variables—financial performance, strategic planning, and financial management—were observed without manipulation at a single point in time, consistent with a cross-sectional, non-experimental design (Vega et al., 2022). By focusing on a single moment, the study examines how these variables relate to one another and how they behave in this particular context. This cross-sectional design is widely used in studies of micro, small, and medium-sized enterprises (MSMEs) due to its effectiveness in capturing relationships between variables at a specific point in time (Argüelles et al., 2020; Mayett et al., 2022), and it is consistent with previous research that has analyzed the

relationship between strategic planning and financial performance in SMEs (Gomera et al., 2018; Mora et al., 2015).

The scope of this study is correlational, as its purpose is to understand the relationship or degree of association between two or more concepts, categories, or variables in a particular sample or context (Hernández et al., 2019). In this sense, the relationship between strategic planning and financial management in companies is analyzed with respect to their financial performance. This type of correlational analysis has been successfully applied in studies on SMEs to identify critical success and survival factors (Williams et al., 2020).

The questionnaire, administered face-to-face by trained personnel, consists of two sections. The first section gathers general information about the company and the respondent. The second section includes 18 questions using a five-point frequency scale ranging from 1 ('Very frequently') to 5 ('Never'). These questions allow the collection of information on aspects of the companies' financial performance, strategic planning, and financial management. The instrument underwent validation through a pilot test, yielding a Cronbach's alpha reliability coefficient of 0.87, indicating adequate internal consistency. The use of Likert-type scales in studies of micro, small, and medium-sized enterprises (MSMEs) has proven effective in capturing perceptions of financial management practices and strategic planning (Harianti et al., 2021; Setianingsih et al., 2022).

Finally, the questionnaire concludes with an open-ended question to gather qualitative information on whether the COVID-19 pandemic affected business operations. This addition is relevant considering the significant impact the pandemic had on Mexican SMEs (Arrona, 2022; INEGI, 2022). Each of the 18 items in the second section of the instrument corresponds to an indicator that explains the variables used. The final sample consisted of 48 companies that completed the questionnaire in its entirety.

The data collected from the questionnaire were compiled in Excel for subsequent analysis using IBM SPSS Statistics version 25. Exploratory factor analysis was applied with principal component extraction and Varimax rotation to identify the underlying structure of the variables and reduce the dimensionality of the data (Galicía et al., 2020; Valenzuela et al., 2019). The Kaiser-Meyer-Olkin (KMO) criterion (eigenvalues greater than 1) was used for factor retention, and sample adequacy was verified through KMO and Bartlett's test of sphericity.

Subsequently, Spearman's rank-order correlation coefficient was computed as a non-parametric alternative appropriate for ordinal data derived from five-point frequency scales (Siegel & Castellan, 1988). This technique calculates the correlation coefficient, which indicates the strength and direction of the relationship between the variables. Given the ordinal nature of the data obtained through the Likert scale, this method was used instead of Pearson's correlation. A significance level of $\alpha = 0.05$ was established for all statistical tests. This methodological approach is consistent with previous studies that have analyzed relationships between financial and strategic variables in SMEs (Lievano, 2021; Soboleva et al., 2018).

In this study, financial performance is defined as the dependent variable, while strategic planning and financial management are considered independent variables. As shown in Table 1, each item is associated with an indicator that justifies the variables analyzed.

Table 1. Description of variables and sub-variables

Variable type	Variable	Subvariable	Indicator	Item
Dependent	Financial performance	Profit generation	Profitability	1
			Financial indicators	2
			Working capital	3
		Business valuation	Value creation	4
Independent	Strategic planning	Strategic plan design	Mission, business vision	5
			Strategic and financial plan	6
			SWOT Analysis	7
		Formulation of financial objectives and goals	Decision-making	8
			Control mechanisms	9
			Independent	Financial management
Innovation investments	11			
Financial investments	12			
Financing decisions	Type of financing used	13		
	Cost of capital	14		
	Required rate of return	15		
	Capital structure	16		
Profit distribution decisions	Cash flow	17		
	Profit distribution	18		

Source: Own elaboration

Financial performance, as a dependent variable, is explained by the sub-variables of profit generation and business valuation. Both reflect the company's financial health and profitability, as well as its generation of economic value in the market. Measuring financial performance in SMEs has been addressed by various authors, who have highlighted the importance of considering multiple indicators for a comprehensive evaluation (Afrifa and Tingbani, 2018; Carrión et al., 2019; Argüelles et al., 2020; Musah et al., 2018). Business valuation as a component of financial performance has gained relevance in the context of SMEs, especially in terms of value creation (Téllez, 2015; Tovar, 2018).

The design of the strategic plan and the formulation of financial objectives and goals are two essential sub-variables that are intrinsically related to the independent variable of strategic planning. Both sub-variables play a fundamental role in defining the company's strategic direction and approach, as well as in determining its financial goals. The literature has consistently demonstrated the importance of strategic planning in the performance of SMEs (Gomera et al., 2018; Mora et al., 2015; Williams et al., 2020). The design of the strategic plan, which includes elements such as mission, vision, and SWOT analysis, has been identified as a critical success factor (Oña and Vega, 2018). Leyva et al. (2018) confirmed that strategic planning and managerial skills constitute key internal factors determining business competitiveness in SMEs in our country. Kitsios et al. (2019) noted that the critical factors of strategic planning include the clear formulation of objectives and the systematic analysis of the environment, elements that facilitate effective strategic decision-making.

On the other hand, investment, financing, and profit distribution decisions are essential sub-variables closely related to the independent variable of financial management. These decisions reflect how companies manage their financial resources to maximize shareholder value and achieve their financial and strategic objectives. Investment decisions in SMEs have been extensively studied, highlighting the importance of expansion, replacement, and innovation investments (León et al., 2019; López et al., 2018). Regarding financing decisions, the literature has emphasized the relevance of the type of financing used and the capital structure to the performance of SMEs (Belas et al., 2018; Daskalakis et al., 2017; Flores-Hernández, 2020; Londoño and Sánchez, 2017). Finally, profit distribution decisions, including cash flow management, have been identified as fundamental elements of financial management in SMEs (Martínez et al., 2018; Saavedra and Uribe, 2018; Aguilar et al., 2017; Wang, 2019).

The inclusion of a question about the impact of the COVID-19 pandemic on business operations, classified as a contextual variable, responds to the need to contextualize the results within the framework of the health and economic crisis that significantly affected Mexican MSMEs (World Bank, 2020; International Monetary Fund, 2020). The pandemic generated differentiated impacts on MSMEs, particularly affecting their financial management and strategic planning capabilities (Galicía et al., 2020; Mancilla, 2022). Government economic support implemented during the pandemic also influenced the financial performance of these businesses (Salas et al., 2020).

Results

The following section presents the results derived from statistical analyses conducted using IBM SPSS Statistics v.25. These results provide partial answers to the research questions posed, which are presented below:

General Question: What is the relationship between the financial performance of MSMEs in the state of Zacatecas, strategic planning, and financial management practices?

Specific Questions: How does the design of the strategic plan influence the improvement of financial performance in companies in Zacatecas? How does the formulation of financial objectives and goals within strategic planning contribute to the financial performance of companies in Zacatecas? How do investment decisions affect the financial performance of companies in Zacatecas? What is the impact of financing decisions on the financial performance of companies in Zacatecas? How do profit distribution decisions influence the financial performance of companies in Zacatecas?

The study includes a total of 48 companies, classified by size based on the number of employees. Sixty-seven percent of the companies are micro-enterprises, indicating a strong representation of this segment. Nineteen percent are small businesses, while medium and large companies represent 8% and 6%, respectively, totaling 100%. These data reflect the predominance of smaller organizations, as is the case nationally and in the state of Zacatecas, which may have significantly influenced the study's results by providing a more focused perspective on the characteristics and challenges of micro, small, and medium-sized enterprises (MSMEs). It should be noted that the three large companies included participated in the pilot test and were incorporated into the final sample given the relevance of their responses for validating the instrument.

Regarding the participants who answered the questionnaire, 35% were female, while 65% were male. This data reflects a greater representation of men in the study, which could be related to the organizational structure of the participating companies.

Regarding the age of the respondents, 10.42% were young people between 16 and 29 years old, while 31.25% were between 30 and 39 years old, representing a significant proportion of adults in the early stages of their careers. The largest group, at 33.33%, was between 40 and 49 years old, suggesting a predominance of people with established professional experience. Finally, 25% were between 50 and 59 years old, reflecting a significant presence of people in advanced stages of their careers. This data enriches the study by considering different levels of experience and professional stages.

Regarding the respondents' academic level, the data reflects a diverse distribution encompassing various levels of education. 4.17% of participants hold a doctoral degree; 14.58% have a master's degree. Meanwhile, 47.92% of respondents have a bachelor's degree, making them the most representative group, which highlights the relevance of this educational level in the context of the study. Finally, 33.33% have only basic education, demonstrating a considerable number of individuals with minimal educational attainment.

The positions held by the respondents within the company reflect a diversity in the hierarchical levels of the participants, providing a comprehensive perspective on organizational dynamics. 22.92% of the questionnaires were answered by owners or partners, who represent the strategic vision and key decision-making within the organizations. Meanwhile, 33.33% were from directors or managers, a group that contributes a perspective focused on operational and strategic management. Finally, 43.75% of the responses came from employees, adding a view from the operational level and enriching the analysis by including the experiences and perceptions of those who carry out the daily activities.

Continuing with the information gathered on the participating companies, the distribution by economic sector reveals a preponderance of organizations dedicated to the service sector, representing 50% of the total. This data underscores the relevance of this sector in the sample studied, reflecting its impact and dynamism in the economy. On the other hand, 48% of the surveyed companies belong to the commercial sector, highlighting its role as a key pillar for the exchange of goods and products. Finally, only 2% correspond to the industrial sector, indicating a lower representation of this activity.

Analysis of the age range of the surveyed companies shows that the majority are

organizations with up to 10 years of operation, representing 41.67% of the total. Companies with 11 to 20 years of operation, as well as those with 21 to 30 years of operation, each comprise 20.83% (10 companies in each case). Companies with 31 to 40 years of operation and those with more than 40 years of operation each represent 8.33% of the total (4 companies in each range). This demonstrates that the predominant group consists of relatively young companies.

Regarding the impact of the COVID-19 pandemic, 58% of the surveyed companies indicated that they did not experience a significant negative impact. According to the data from the open-ended question included in the questionnaire, these companies considered this situation an opportunity for adaptation and business growth. Meanwhile, 42% stated that they were indeed affected by the pandemic.

Using ANOVA statistical analysis with IBM SPSS Statistics software, it was identified that age, gender, company age, and the impact of the COVID-19 pandemic did not show statistically significant differences in their averages. However, statistically significant evidence was found regarding the position: the owner or partner perceives the application of strategic planning ($F(2, 45) = 3.85, p = .025$) and financial management ($F(2, 45) = 4.12, p = .040$) as more important than directors/managers and employees.

Frequency analysis by variable

According to the percentages corresponding to the frequencies of the items in the applied questionnaire, regarding financial performance, it is noteworthy that the surveyed companies prioritize profitability and working capital management. With respect to strategic planning, it is striking that the companies have defined and formalized their mission, vision, values, and organizational policies, as well as the formulation of financial objectives and goals, through decision-making and the use of control mechanisms.

The percentages for items related to financial management practices show that the surveyed companies consider cash flow analysis important, prepare budgets to anticipate potential surpluses or deficits, and plan the necessary actions. They also plan the acquisition of fixed assets such as equipment or machinery to achieve innovation in products, processes, marketing, or business models.

Types of financing used

Regarding the types of financing used, the results reveal five main strategies. Bank or savings institution loans and supplier credit each account for 35.42% of cases, making them the most frequently used financing mechanisms. Partner or owner contributions and profit reinvestment represent 16.66%, reflecting owners' confidence in their businesses' growth potential. Finally, informal loans and the absence of any external financing needs each represent 6.25% of respondents.

Exploratory factor analysis

To analyze the relationship between business financial performance in the state of Zacatecas, strategic planning, and financial management practices, IBM SPSS Statistics software was used to carry out exploratory factor analysis (EFA). The variables were grouped into three factors for better understanding and interpretation.

The Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity were performed to verify the adequacy of the data. The KMO measure yielded a value of 0.785, indicating acceptable sample adequacy (Hair et al., 2019), meaning there is sufficient correlation between the variables to justify the use of factor analysis.

At the same time, Bartlett's test of sphericity yielded an approximate chi-square value of 667.264 with a significance level of $p < 0.001$, indicating that the test is statistically significant. This establishes that there is sufficient correlation between the variables to justify factor analysis.

Using the principal axis factorization extraction method with Varimax rotation, three factors were identified that explain 70.493% of the variance observed in the study. Table 2 shows the percentage of variance for each component, as well as the cumulative percentage.

Table 2. Total variance explained

Component	Total	% Of the variance	% Cumulative
1	9.123	53.666	53.666
2	1.618	9.516	63.182
3	1.243	7.311	70.493

Source: Prepared by the author using data obtained from the applied questionnaire. The three identified factors explain 70.493% of the observed variance, indicating that they capture most of the variability present in the analyzed data. The first factor explains

53.666% of the variance, the second factor contributes an additional 9.516%, and the third factor contributes 7.311%. Table 3 describes the composition of each factor, including the items that comprise it, the corresponding Cronbach's alpha, and the variance explained.

Table 3. Exploratory factor analysis: factor composition

Factor	Cronbach's alpha	Variance explained	Item	Indicator
Factor 1 (Performance and planning)	0.930	53.666%	1	Profitability
			2	Financial indicators
			3	Working capital
			4	Value creation
			5	Mission, business vision
			6	Strategic and financial plan
			7	SWOT Analysis
			8	Decision-making
			9	Control mechanisms
Factor 2 (Investment and cash flow decisions)	0.872	9.516%	10	Expansion or replacement investments
			11	Innovation investments
			12	Financial investments
			17	Cash flow
Factor 3 (Financing decisions)	0.764	7.311%	13	Type of financing used
			14	Cost of capital
			15	Required rate of return
			16	Capital structure
			18	Profit distribution

Source: Prepared by the author using data obtained from the applied questionnaire

Discussion

The results obtained from this research provide significant empirical evidence on the relationship between strategic planning, financial management, and financial performance in micro, small, and medium-sized enterprises (MSMEs) in the state of Zacatecas, contributing to knowledge in several relevant dimensions. The findings are consistent with theoretical propositions outlined in the international literature regarding the importance of strategic planning for business performance, grounded in the specific Mexican context. This had previously been considered in the theoretical literature, but with limited regional empirical evidence.

The statistically significant evidence found between strategic plan design and financial performance, as well as between the formulation of financial objectives and goals and business profitability, strengthens the postulates established in the literature on strategic planning as a determining factor of business success. This study provides specific empirical evidence by demonstrating that these relationships remain valid even in the context of Mexican small and medium-sized enterprises (SMEs), which operate in an economic environment characterized by informality and volatility—distinctive aspects of the Zacatecas context that have not been sufficiently explored in previous research.

Recent research in Latin American contexts has found similar results. Brenes et al. (2016) reported that the quality of strategic planning is positively related to profitability and growth indicators, although these authors also noted that the institutional context plays an important moderating role. The findings of the present study extend these results to the specific context of Zacatecas, confirming that strategic planning remains relevant as a management tool. Mora et al. (2015) identified in micro, small, and medium-sized enterprises (MSMEs) in the retail sector in Bogotá that strategic planning is positively related to levels of business competitiveness. This background reinforces the validity of the results obtained and suggests that the relationship between the variables in this study transcends geographical boundaries within the Latin American context.

A noteworthy finding concerns the non-significant correlation between external financing decisions (items 13 and 16: type of financing and capital structure) and financial performance. This result suggests that, among the surveyed MSMEs in Zacatecas, reliance on external financing does not appear to be a determining factor for financial performance, contrasting with findings from studies focused on large corporations. A plausible explanation is that these businesses exhibit a strong preference for internal financing sources

— such as retained earnings and owner contributions — which may reflect cultural factors, limited access to formal credit markets, and institutional barriers characteristic of the Mexican business context. This interpretation is consistent with the findings of Daskalakis et al. (2017), who demonstrated that capital structure determinants in small businesses vary significantly depending on the macroeconomic environment, and Belas et al. (2018), who noted that the specific characteristics of small businesses significantly shape their financing decisions.

This preference for internal financing has been previously documented in the literature on MSMEs. Daskalakis et al. (2017) found that the behavior of capital structure determinants in small businesses varies significantly depending on the macroeconomic environment. Belas et al. (2018) noted that the specific characteristics of small businesses significantly impact their capital structure decisions. This research is consistent with these observations, where factors such as business informality and institutional barriers to accessing formal credit reinforce the preference for self-financing. Martínez et al. (2018) confirmed that MSMEs maintain higher cash levels and exhibit specific adjustment rates in their financial structure.

The research also reveals the critical importance of strategic investment decisions in the financial performance of SMEs, a finding that aligns with existing literature on corporate financial management. This research is consistent with the work of Ross et al. (2018), who emphasize that capital investment decisions are the most decisive factor in long-term business value. Similarly, Brealey et al. (2020) noted that even in contexts of limited resources, the quality of investment analysis and project selection are fundamental to business success. However, this study adds specificity by demonstrating that the quality of investment decisions maintains a significant positive impact on profitability, indicating that resource limitations do not necessarily compromise the effectiveness of investment decisions when they are well-founded and aligned with the business strategy.

Research on Latin American MSMEs has previously explored this relationship. León et al. (2019) identified the main factors determining productive investment in MSMEs, highlighting the importance of systematic project evaluation. Williams et al. (2020) indicated, using a configurational approach, that strategic management practices in small businesses have significant effects on performance. The results of this study confirm that strengthening investment analysis and selection capabilities has a tangible return in terms of financial performance, specifically in improving profitability and value creation

indicators.

The context of the COVID-19 pandemic in which this research was conducted adds another dimension to the findings. The results suggest that strategic planning and sound financial management may serve as protective factors during crisis periods, as evidenced by the relatively stable relationships observed among the study variables in this post-pandemic context, suggesting that SMEs with robust strategic planning and financial management practices achieved greater resilience and adaptability. It is important to note that, although 58% of the companies reported not experiencing a significant negative impact, this does not negate the existence of the crisis, but rather reflects the adaptability and ability to capitalize on opportunities by those organizations with better management practices. This validates the importance of these administrative tools not only under normal operating conditions, but also in contexts of uncertainty and crisis.

The results are consistent with recent studies on the impact of the pandemic on MSMEs. Bartik et al. (2020) showed that small US businesses with more sophisticated financial practices were more likely to survive during the first months of the pandemic. Fairlie (2020) found that companies with cash reserves and robust financial planning coped better with the economic disruptions caused by COVID-19. In the Latin American context, Dini and Stumpo (2020) observed that MSMEs with more developed management capabilities showed greater adaptability during the health crisis. Galicia et al. (2020) analyzed the survival and performance strategies of MSMEs in uncertain environments, confirming the relevance of strategic management. Arrona (2022) studied the impact of critical survival factors on MSMEs during 2020–2021 in the presence of COVID-19. The present research extends these observations, confirming that strategic planning and sound financial management function as protective factors even in conditions of extreme crisis.

The statistically significant evidence found between profit distribution decisions and financial performance, particularly in terms of working capital, constitutes a substantial contribution to the understanding of financial management in SMEs. This result suggests that decisions related to cash flow management and profit distribution have a direct impact on the operational financial health of these companies, an aspect that has been little explored in the literature focused on the context of Mexican small and medium-sized enterprises. While item 17 (cash flow) loaded onto Factor 2 alongside investment decisions in the exploratory factor analysis, its theoretical affinity with working capital management (Factor 3 conceptually) warrants cautious interpretation and represents an area for refinement in

future instrument development and distribution decisions, which is consistent with financial theory that emphasizes the interdependence between these decisions.

This relationship has been explored by several authors from different perspectives. Afrifa and Padachi (2016) noted in a study of small manufacturing companies that efficient working capital management has a significant positive impact on profitability. Afrifa and Tingbani (2018) identified that working capital management, cash flow, and the performance of small businesses are closely related. Musah et al. (2018) found that financial management practices are significantly associated with the growth and profitability of small businesses. Soboleva et al. (2018) highlighted the importance of monitoring operations through cash flow analysis. More recently, Sooriyakumaran et al. (2022) demonstrated the association between financial management practices and the performance of small businesses. This study confirms the relationship within the context of Zacatecas-based MSMEs, emphasizing that decisions regarding profit reinvestment versus distribution have direct implications for operating liquidity and, consequently, for financial performance.

Among the practical implications, the results obtained raise important questions for MSME entrepreneurs and for the design of supportive public policies. The confirmation that formal strategic planning positively impacts financial performance suggests the need to develop training and support programs that strengthen managerial skills in this area. This recommendation is supported by the literature on business development. Leyva et al. (2018) indicated that strategic planning and managerial skills significantly influence the competitiveness of SMEs as internal factors. Kitsios et al. (2019) identified critical factors of strategic planning in the logistics management of small businesses. Mayett et al. (2022) analyzed financial management and its relationship to performance in Colombian and Mexican MSMEs, confirming the importance of managerial practices.

Likewise, the finding regarding the preference for internal financing indicates the importance of developing strategies that improve access to external financing and promote a more sophisticated financial culture among MSME entrepreneurs. This need has been emphasized by various international organizations. The World Bank (2020) has pointed out that financing is one of the main constraints on MSME growth in Latin America. García et al. (2019) analyzed the financial management framework in small businesses, identifying problems and diagnostic perspectives. Harianti et al. (2021) highlighted the importance of financial literacy in small businesses. Setianingsih et al. (2022) studied the effect of financial knowledge and planning on the financial management behavior of small

businesses. This research reinforces the relevance of these recommendations for the Zacatecas context and Mexico in general.

Among the research limitations is its specific geographic focus on the state of Zacatecas, which may limit the generalizability of the results to other Mexican regional contexts. This limitation is recognized in the methodological literature on regional studies. Yin (2018) argues that while case studies or those with a specific geographic focus limit statistical generalizability, they allow for a deep understanding of phenomena in their natural context, facilitating analytical or theoretical generalization. Nevertheless, the study's methodological robustness and the consistency of its findings primarily provide a solid foundation for future research that can replicate and extend these results to other contexts. The research makes a significant contribution to knowledge, as it provides specific empirical evidence on the financial and strategic dynamics of Mexican MSMEs, filling an important gap in the national literature on business management in small and medium-sized enterprises.

Future lines of research

The findings of this research suggest several avenues for future investigation that will expand and deepen our understanding of the management of Mexican MSMEs. The priority areas identified are presented below:

First, it is necessary to replicate the study in other Mexican states to validate the generalizability of the findings and identify potential contextual variations in the relationships between strategic planning, financial management, and business performance. This comparative approach would allow for the identification of both common patterns and regional characteristics that influence the performance of SMEs in different economic and cultural environments.

A second priority research area involves developing longitudinal studies that analyze the evolution of these relationships over time, particularly in the post-pandemic context, to better understand the long-term effects of management practices implemented during and after the health crisis. This type of temporal analysis would allow for the identification of trends, adaptive changes, and the sustainability of strategies implemented during times of crisis.

Similarly, investigating mediating factors such as human capital, innovation, technological access, and dynamic capabilities could explain the variations in business

performance observed among MSMEs. Understanding these intermediate components would enrich the theoretical model and provide valuable information for designing more effective interventions.

On the other hand, the analysis of sustainability and corporate social responsibility practices constitutes another relevant line of research. Companies are increasingly facing pressure to adopt sustainable practices, and it is important to understand how these initiatives relate to strategic planning and financial performance in the context of Mexican SMEs.

Finally, analyzing the effects of government support programs on the management practices and performance of micro, small, and medium-sized enterprises (MSMEs) represent a line of research with significant implications for public policy. Evaluating the effectiveness of these programs would allow for the identification of best practices and areas of opportunity to optimize institutional support for this business sector.

Additionally, it would be valuable to explore three complementary aspects related to accounting standards and environmental sustainability. First, analyzing the theoretical and practical evolution of accounting standards in terms of their implementation in organizations and among accountants is crucial to achieving a comprehensive understanding of this situation and improving the presentation of information through financial statements. Second, it is important to investigate the level of knowledge accountants have regarding the existence and application of accounting standards applicable to environmental issues. Finally, it is essential to identify whether there has been significant progress in recognizing and measuring the environmental impact of companies, thereby contributing to the prevention of damage or deterioration of the elements that make up the environment.

These lines of research would contribute both to theoretical advancement and to the development of more effective public policies for strengthening the MSME sector in Mexico, fostering its competitiveness, sustainability, and contribution to national and regional economic development.

Conclusions

This study was developed to determine the relationship between strategic planning, financial management practices, and the financial performance of MSMEs in Zacatecas, revealing significant conclusions that contributed to both theoretical knowledge and business practice.

Micro, small, and medium-sized enterprises (MSMEs) in Mexico represent 99.8% of all businesses, according to INEGI data. In the state of Zacatecas, they constitute 99.58% of the business sector. This proportion underscores the crucial need to analyze the factors that allow them to survive and grow. These businesses not only form the backbone of the national economy but also play a vital role at the state level, particularly in job creation, thus becoming essential actors for the country's economic and social development.

The high percentage of micro, small, and medium-sized enterprises (MSMEs) underscore their structural importance and the need to create environments conducive to sustainability. In this context, it is crucial to investigate and understand the internal dynamics that influence their performance, such as strategic planning and financial management practices. The ability of these businesses to implement effective strategies and manage their resources efficiently is critical for their adaptation and resilience in an increasingly competitive market.

The COVID-19 pandemic tested the resilience of micro, small, and medium-sized enterprises (MSMEs) in an unprecedented way. The resulting health and economic crisis demanded rapid adaptation and the implementation of innovative strategies from all businesses, but especially from those in this category, in order to survive. The ability of MSMEs to overcome these challenges further highlighted the importance of sound strategic planning and effective financial management. Those organizations that managed to adapt to the new environment, diversify their sales channels, and optimize their financial resources demonstrated remarkable resilience, allowing them not only to survive but, in some cases, to thrive.

This study makes a significant contribution to existing knowledge by being one of the first investigations to empirically examine the relationship between strategic planning, financial management, and financial performance in micro, small, and medium-sized enterprises (MSMEs) in the state of Zacatecas. While previous literature has focused primarily on large companies or international contexts, this research provides empirical evidence of the behavior of these variables within a specific Mexican regional context.

Therefore, the null hypothesis was rejected ($p < .05$), providing support for the proposed positive relationship between strategic planning, financial management practices, and business financial performance. Statistically significant evidence confirms this relationship in the MSME context of Zacatecas.

This research highlights the importance of a holistic approach that combines strategic planning with efficient financial management practices to improve the financial performance of businesses, primarily micro, small, and medium-sized enterprises (MSMEs) in Zacatecas. Organizations that recognize and apply these management tools can strengthen their market position, ensuring their long-term viability and success. The results obtained provide a solid foundation for future research and the implementation of policies and support programs that promote these practices among MSMEs in the state and, more generally, in any Mexican company seeking to improve its competitiveness and sustainability.

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