FINANCIAL PLANNING AND DECISION MAKING AS PREDICTORS OF FINANCIAL PERFORMANCE IN MSMES

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**ABSTRACT**

**Purpose:** the present study demonstrates that the combination of financial planning and decision making jointly contribute as predictors of efficient financial performance, permeating into MSMEs’ market sustainability.

**Theoretical Framework:** Micro, small and medium enterprises (MSMEs) currently have a relevant role in gross domestic product and direct job creation in Latin American countries. The literature shows that financial planning is a highly valuable tool for large businesses, facilitating decision making and creating positive impacts on financial performance. However, these studies are centered on businesses classified as large, excluding MSMEs. Recent studies have approached financial planning, decision making, and financial performance in MSMEs on an individualized basis.

**Methodology:** The study carried out was quantitative, non-experimental, correlation, cross-sectional, and explanatory. A total of 308 MSMEs participated, obtained from the National Geography and Statistics Institute (INEGI, 2019), of which 34.41\% were industrial, 32.14\% commercial, and 33.41\% from the service sector. Normal distribution tests were done (Kolmogorov-Smirnov tests), along with symmetry and kurtosis.

**Findings:** The findings suggest that MSMEs which have been around for seven years or more have financial planning knowledge favoring their decision-making and generating efficient financial performance, making time a determining factor.

**Research, Practical & Social Implications:** Our findings have significant implications for generating proper planning based on solid tools, with the effect of assertive decision making which favors financial performance.

**Originality/Value:** The most important contribution from this study to MSMEs is to show that financial planning is not only for large organizations, but can apply to them as well.

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RESUMEN

Objetivo: Esta pesquisa demonstra que a combinação entre planejamento financeiro e tomada de decisão contribuem juntos como preditores de desempenho financeiro eficiente, permeando a sustentabilidade das mini-PMEs no mercado.

Referencial Teórico: As micro, pequenas e médias empresas (mini-PMEs) têm atualmente um papel relevante no produto interno bruto e na criação direta de empregos nos países latino-americanos. A literatura mostra que o planejamento financeiro é uma ferramenta muito valiosa para grandes empresas, facilitando a tomada de decisões e criando impactos positivos no desempenho financeiro. No entanto, estes estudos centram-se em empresas categorizadas como grandes, excluindo as mini-PME. Estudos recentes consideraram o planejamento financeiro, a tomada de decisões e o desempenho financeiro com um método individualizado.

Desenho/Metodologia/Abordagem: Foi realizado um estudo quantitativo, não experimental, transversal, correlacional e explicativo. Participaram 308 mini-PME, com amostra obtida junto do Instituto Nacional de Estatística e Geografia (INEGI, 2019. Nesta amostra, 34,41% eram empresas industriais, 32,14% eram comerciais e 33,41% eram do sector dos serviços. Testes para distribuição normal (Kolmogorov-Smirnov), bem como simetria e curtose.

Resultados: Os resultados indicam que as mini-PME que duram sete anos ou mais têm conhecimentos de planejamento financeiro que apoiam a tomada de decisões e geram um desempenho financeiro eficiente, o que indica que o tempo é um factor determinante.

Pesquisa, Implicações Práticas e Sociais: Nossos resultados têm implicações importantes na geração de um planejamento adequado baseado em ferramentas sólidas, com efeito na tomada de decisões assertivas que favoreçam o desempenho financeiro.

Originalidade/Valor: A contribuição mais valiosa desta investigação para as mini-PME é que demonstra que o planejamento financeiro não se aplica apenas às grandes empresas, mas também pode ser aplicado a elas.

Palavras-chave: Planejamento Financeiro, Tomada de Decisões, Desempenho Financeiro, Mini-PMEs.

PLANIFICACIÓN FINANCIERA Y TOMA DE DECISIONES COMO PREDICTORES DEL DESEMPEÑO FINANCIERO EN LAS MIPYMES

RESUMEN

Propósito: Esta investigación demuestra que la combinación de planificación financiera y toma de decisiones contribuyen en conjunto como predictores de desempeño financiero eficiente, permeando a la sustentabilidad de las mini-PYMEs en el mercado.

Marco Referencial: Las micro, pequeñas, y medianas empresas (mini-PYMEs) actualmente tienen un papel relevante en el producto bruto interno y la creación directa de empleos en países latinoamericanos. La literatura demuestra que la planificación financiera es una herramienta muy valiosa para las empresas grandes, facilitando la realización de decisiones y creando impactos positivos sobre el desempeño financiero. Sin embargo, estos estudios están centrados en negocios categorizados como grandes, excluyendo las mini-PYMEs. Estudios recientes han contemplado la planificación financiera, la toma de decisiones, y el desempeño financiero con un método individualizado.

Metodología: Se realizó un estudio cuantitativo, no-experimental, transversal, correlacional, y explicativo. Un total de 308 mini-PYMEs participaron, con una muestra obtenida del Instituto Nacional de Estadística y Geografía (INEGI, 2019. En esta muestra, el 34,41% fueron negocios industriales, el 32,14% fue comercial, y el 33,41% del sector de servicios. Se realizaron pruebas de distribución normal (Kolmogorov-Smirnov), además de simetría y curtosis.

Hallazgos: Los resultados indican que las mini-PYMEs que han durado siete años o más tienen conocimientos de planificación financiera que les brinda apoyo en la toma de decisiones y genera desempeño financiero eficiente, lo cual indica que el tiempo es un factor determinante.

Implicaciones de la Investigación: Nuestros hallazgos tienen implicaciones importantes en la generación de planificaciones adecuadas a base de herramientas sólidas, con el efecto de tomar decisiones assertivas que favorecen el desempeño financiero.

Originalidad/Valor: La contribución más valiosa de esta investigación para las mini-PYMEs es que demuestra que la planificación financiera no es solamente para las empresas grandes, sino que puede aplicarse para ellas también.

Palabras clave: Planificación Financiera, Toma de Decisiones, Desempeño Financiero, Mini-PYMEs.
1 INTRODUCTION

Although MSMEs around Latin America are a major employment source, and their contribution to the gross domestic product represents a major value, both praxis and the literature show that MSMEs do not receive the support they need from governments in their three levels. This fact impedes their operational and competitive development. In this dynamic, financial planning is a key tool, since it has helped large companies to reach their organizational objectives. Therefore, studies including Morales, López, Díaz and Huerta (2023) and Castillo (2022) maintain that financial planning is directly tied with companies’ sustained economic growth. These points are echoed by Barrios-Hernández, Figueroa-Saumet, Niebles-Bárcenas and Palacios-Pérez (2022), who showed that financial planning is directly related with savings, which generates auto-funding if needed. The results from Parra (2020) show that proper financial planning allows for better accommodation of the wide range of eventualities which can occur. Based on this scheme, authors including Villalta and Cueva (2022), Valle (2020), and Delgado-Vélez (2021), consider that financial planning is one of the most important business tools, since it allows for a better vision of the company with a more comprehensive focus. Reus (2020), Atlatenco et al. (2022) and Gámez et al. (2020) approach planning as a powerful instrument to carry out activities which can effectively control, organize, and direct resources. Préstamo et al. (2021) indicated that financial planning simplifies decision making and contributes to organizational success. Similarly et al. (2021) and Prieto-Tibaduiza, Rocha-Vega et al. (2019) indicated that using planning aids in making assertive decisions, which is why these variables are closely associated. In this context, financial planning is related with the aforementioned variables. Álvarez-Aros and Bernal-Torres (2022) argue that financial performance is related with decision making, while Panchi et al. (2023), Gualipa and Urbina (2021), and Mayett et al. (2022) highlight that financial performance is tied with the use of financial and planning tools to make effective decisions. This is why Loor et al. (2023) consider it crucial to evaluate companies’ economic performance. The literature shows that access to funding for this type of enterprise is limited. This is the context (Endris & Kassegn, 2022; Long et al., 2020; Zubair et al., 2020) which has centered on the investment behavior of small and medium enterprises (SMEs), concluding that lower bank credit availability and the use of internal financing affects these business’ investments. They also contribute significantly to sustainable development objectives and impact enterprises’ financial performance. Therefore, funding type is a determining factor for investment. These authors have not considered every
dimension of financial planning, nor have they related their results with decision making. Various researchers (Esubalew & Raghurama, 2020; Fauzi et al., 2020; Menne et al., 2022; Al-Mamary et al., 2020; Chrysafis et al., 2024; Civelek et al., 2022; Yadegaridehkordi et al., 2023) highlight in their studies that financial performance in MSMEs and funding help achieve sustainable growth, with funding being a predictor for financial performance. This implies that they need to generate efficient financial planning to achieve capital growth, taking advantage of crises in the environment and having alternatives to invest liquidity, bringing together human resources and business diversification, permeating towards innovation and competitiveness which promote better financial performance. There should thus be a mediating effect between banking finance and financial performance in these organizations, turning business orientation into an element which positively affects it, and developing efficient financial literacy to turn them into competitive companies. However, it has been shown that these studies have an isolated approach to the dimensions of the variables proposed in the present study. They do not consider that financial planning is a determinant for achieving efficient financial performance, and that it is related with decision-making. The present investigation is thus highly important, given that the extant literature does not offer evidence of a combination of the proposed variables and how they can contribute to sustainable business competitiveness, showing the relevance of considering these findings in administering these types of businesses. These results can also help generate possible future studies by combining the dimensions of each variable with the objective of determining which ones are more relevant in achieving efficient financial performance. Our study approaches elements not fully considered by other research, since the scientific presents no other investigations similar to our proposal and which demonstrate their effectiveness in MSME administration.

Analyzing other studies which stand out for being more specific and regional, it is notable that Cull et al. (2015) and Chen et al. (2023) studied businesses’ financial performance in Africa and Russia. Their findings indicated that financial performance incentivizes business growth and is related with monetary policy, with a preponderant role in financial connectivity. Choung, Chatterjee and Pak (2022), Davydov and Vähämaa (2013), and Xinlan et al. (2023), both found a positive relation between bank debt as a funding source with financial performance, with environmental practices having the most influence in corporate performance, conditioned by the moderating effect of family control. Their results helped in establishing action lines to improve financial performance in family businesses or MSMEs. Sarkar and Slarka (2021), Battaglia and Gallo (2015), and Algahtani et al. (2022) showed different
variables from those present in our study, although they did focus on this type of business. In this context, female leadership, corporate governance mechanisms, and multiple positions associated individually with financial performance, finance banking, and financial decisions. The preceding authors show that financial performance is more effective if these variables are strengthened and multiple roles are avoided. These measures contribute strongly, since they help understand the behavior of some dimensions of the studied variables in other contexts which do not share cultural characteristics, but which in themselves do show a family-type management, which is the most important characteristic highlighted in the group of companies studied. In this way, the results obtained from this study could be compared with some variables since their context is similar. However, these scenarios also do not have a study which manages the variables jointly. Instead, they are all managed separately, allowing us to provide novel information which can be replicated.

2 METHODS

The study carried out was quantitative, non-experimental, correlation, cross-sectional, and explanatory. The objective of this research was to determine whether financial planning and decision-making act as predictors for financial performance in Micro, Small, and Medium Enterprises from Tierra Blanca, Veracruz, and was carried out in the City of Tierra Blanca, Veracruz. The businesses considered as micro, small, and medium enterprises (MSMEs) were comprised of a sample by finite populations with a margin of error of 5% and a confidence level of 95%.

3 DATA

A total of 308 MSMEs participated, obtained from the National Geography and Statistics Institute (INEGI, 2019), of which 34.41% were industrial, 32.14% commercial, and 33.41% from the service sector. Sampling took place during the months of August-October 2022. Inclusion criteria were being an MSME and having been in the market for over 7 years. For ethical reasons, participating MSMEs’ details are kept confidential as well as the use of data for research purposes.

Measurement was done using the instrument validated by Joseph (2018). Reliability and quality tests were carried out via applying the Cronbach’s α method, obtaining a value of .955
for the financial planning variable, .911 for decision-making, and .910 for financial performance. The instrument was constructed on a Likert scale. The hypothesis under consideration affirmed that financial planning and decision-making are not predictors for financial performance among participating MSMEs. The SPSS 25 tool was applied for data analysis, and after data debugging a hypothesis test was done via a multiple linear regression model. Normal distribution tests were done (Kolmogorov-Smirnov tests), along with symmetry and kurtosis.

4 RESULTS

4.1 OUR RESULTS APPEAR HEREINAFTER

To begin, normality tests were done by applying a Kolmogorov-Smirnov test, which is determined for tests above 50 data points. The results obtained (see table 1) demonstrated a p-value of .000 for the dependent variable of financial performance, while the independent variables Financial Planning and Decision Making had a p-value of .000, meaning that the variables’ values did not follow a normal distribution in relation to the sample, as this was below .05. However, analyzing the symmetry and kurtosis tests (Table 2) we can see that the independent variable Financial Planning showed a value of -.719 and -.507, and for Decision Making the asymmetry is -.490 and kurtosis is -.863 falling within the tolerance range for symmetry and kurtosis values at -2 and 2 for both. With regards to the dependent variable, the resulting values are -.689 and -.391 respectively, meaning that we can visualize that the 3 variables maintain a normal distribution in the population according to the selected sample.

Table 1

Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th></th>
<th>Fin_Plan</th>
<th>Dec_Mak</th>
<th>Fin_Perf</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>106</td>
<td>106</td>
<td>106</td>
</tr>
<tr>
<td>Normal parameters a, b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>3.7264</td>
<td>3.2547</td>
<td>3.5943</td>
</tr>
<tr>
<td>Dev. Deviation</td>
<td>1.23853</td>
<td>1.28775</td>
<td>1.25568</td>
</tr>
<tr>
<td>Maximums differences extremes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absolute</td>
<td>.229</td>
<td>.247</td>
<td>.212</td>
</tr>
<tr>
<td>Positive</td>
<td>.152</td>
<td>.130</td>
<td>.131</td>
</tr>
<tr>
<td>Negative</td>
<td>-.229</td>
<td>-.247</td>
<td>-.212</td>
</tr>
<tr>
<td>Statistical of test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asymptotic sig. (bilateral)</td>
<td>.000c</td>
<td>.000c</td>
<td>.000c</td>
</tr>
</tbody>
</table>

Source: Author. a) Test distribution is normal; b) Calculated based upon data; c) Lilliefors significance correction.
Table 2

Normality tests for asymmetry and kurtosis

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Fin_Plan</th>
<th>Dec_Mak</th>
<th>Fin_Perf</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>106</td>
<td>106</td>
<td>106</td>
</tr>
<tr>
<td>N Lost</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Asymmetry</td>
<td>-.719</td>
<td>-.490</td>
<td>-.689</td>
</tr>
<tr>
<td>Standard asymmetry error</td>
<td>.235</td>
<td>.235</td>
<td>.235</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-.507</td>
<td>-.863</td>
<td>-.391</td>
</tr>
<tr>
<td>Standard kurtosis error</td>
<td>.465</td>
<td>.465</td>
<td>.465</td>
</tr>
</tbody>
</table>

Source: Author.

As Table 3 shows, the multiple linear regression model the predictive variables, as well as the analysis shows that 68.1\% of variance in the Financial Performance dependent variable, R² = 0.681.

Table 3

Hypothesis testing. Financial planning, decision-making, and financial performance

<table>
<thead>
<tr>
<th>Model</th>
<th>R squared</th>
<th>R² adjusted</th>
<th>Standard estimation error</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.749a</td>
<td>.560</td>
<td>.556</td>
<td>.83660</td>
</tr>
<tr>
<td>2</td>
<td>.681b</td>
<td>.675</td>
<td>.71565</td>
<td>2.012</td>
</tr>
</tbody>
</table>

Source: Author.

In order to test the hypothesis, the following Y= X₁ +X₂ model was generated, obtaining according to the multiple linear regression model (Table 4) Y= .484 +.429X₁ +.464X₂ For the linear regression model, the results obtained in the financial planning model (t=5.557, p=.000), while for decision making (t=6.255, p=.000). The variance factor (VIF) 1.875 and 1.875 indicated that the non-collinearity assumption is fulfilled by showing values above 0.000 indicating a significant influence, since none of the values was above 10, and overall they approach 1 (Table 4).

Table 4

Coefficient determination

<table>
<thead>
<tr>
<th>Model</th>
<th>Non-standardized coefficients</th>
<th>Standardized coefficients</th>
<th>T</th>
<th>Sig.</th>
<th>Collinearity statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B Dev. Error Beta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant) .766 .259 .749</td>
<td></td>
<td>2.962</td>
<td>.004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fin_Plan .759 .066 .749</td>
<td></td>
<td>11.513</td>
<td>.000</td>
<td>1.000 1.000</td>
</tr>
<tr>
<td>2</td>
<td>(Constant) .484 .226</td>
<td></td>
<td>2.142</td>
<td>.035</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fin_Plan .429 .077 .423</td>
<td></td>
<td>5.557</td>
<td>.000</td>
<td>.533 1.875</td>
</tr>
<tr>
<td></td>
<td>Dec_Mak .464 .074 .476</td>
<td></td>
<td>6.255</td>
<td>.000</td>
<td>.533 1.875</td>
</tr>
</tbody>
</table>

Source: Author.
Based on the Anova model (table 5) we can confirm the rejection of the null hypothesis, since the regression model with both variables proves that there is a significant improvement in prediction of the dependent variable $F_{(2,103)} = 110.129$, $p = 0.000$.

**Table 5**

*Anova model*

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of squares</th>
<th>Gl</th>
<th>Quadratic mean</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>92.767</td>
<td>1</td>
<td>92.767</td>
<td>132.543</td>
<td>.000$^b$</td>
</tr>
<tr>
<td>1 Residual</td>
<td>72.790</td>
<td>104</td>
<td>.700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>165.557</td>
<td>105</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>112.805</td>
<td>2</td>
<td>56.403</td>
<td>110.129</td>
<td>.000$^b$</td>
</tr>
<tr>
<td>2 Residual</td>
<td>52.751</td>
<td>103</td>
<td>.512</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>165.557</td>
<td>105</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author. a) Dependent variable: Fin_Perf; b) Predictors: (Constant), Fin_Plan; c) Predictors: (Constant), Fin_Plan, Dec_Make-

**5 DISCUSSIONS**

The present study has shown that financial planning is one of the most important tools for any directorate. The study was done via the participation of 308 companies which were family businesses (MSMEs), which carried out a completely empirical administration. The results show that financial planning is highly useful in businesses of any size or characteristic.

In this context, we can visualize that financial planning and decision-making effectively have a strong relation with financial performance. These results align with those obtained by Yadegaridehkordi et al. (2023) who grounded their study in Predictors of environmental, financial, and social performance in SMEs; however, they only concentrated on studying manufacturing companies and their financial performance, without granting any importance to financial planning and decision making. Zubair et al. (2020), Civelek et al. (2022), Menne et al. (2022), and Al-Mamary et al. (2020) were able to find that funding is a determinant for investment, highlighting that reducing financial risks in MSMEs increases their financial performance and favors decision-making. The consulted literature indicates that there are positive relations between financial performance, funding sources, and financial orientation, to cite a few variables. However, they did not show a direct relation between financial planning, financial performance, and decision making. The results of the present study are thus determinant, demonstrating that financial planning and decision making are effectively predictors of financial performance. Therefore, if these companies strengthen their financial planning variable, they could obtain beneficial results for their organization. This will also lead to decreased financial
risk, since the variables studied are considered to be axial and determinant variables for achieving maximal financial performance via assertive decision-making.

6 CONCLUDING REMARKS

Based on the consulted and cited studies, together with the results obtained, we can draw certain conclusions, where major similarities with the aforementioned points appear. The study confirms that there is a high prediction of the financial planning and decision-making variables as a function of financial performance, with statistical proof of their associability. Therefore, if entrepreneurs apply proper financial planning, the consequence will be more assertive decision making, ultimately favoring financial performance.

Another central point to consider is that the MSMEs which participated had all been in the market for over seven years, implying that they all had a stable and defined market. Based on their experience, all these businesses did apply planning tools. It would be interesting to carry out this study among businesses in the same areas but with less than 7 years’ experience. This would help compare results and show whether significant differences existed.

As part of these conclusions, it is also necessary to argue that not every participating business carried out proper planning. These results thus help indicate the importance of planning in making decisions and how this is reflected in financial performance, opening an opportunity for academics to offer training in this matter.

In general, we conclude that financial planning is one of the most important tools for risk minimization and is closely tied with decision making, improving it by increasing assertiveness and permeating towards achieving better financial performance. It has also been shown that the size or area of the businesses in question does not matter, and that it applies to all without exceptions.

The study reveals important implications which allow us to propose implementing objective financial planning based upon the particular tools of the trade, which can lead towards proper decision making and ultimately impacting two important points: financial performance, and decreased financial risk. Financial performance is a highly valuable variable for any organization, based upon maximizing financial resources and leading to the application of scientific administration and significantly avoiding empiricism.

It is recommendable that MSMEs start changing by applying proper planning based on solid tools. They should implement a scientifically-based administration to face the changes
and needs demanded in their globalized context. Therefore, the academy can contribute by closing the gaps between businesses and institutions and working collaboratively to achieve sustainable planning and administration which can face current demands.

REFERENCES


