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Article

Methodology to measurement of competitiveness in organizations belonging to the auxiliary credit activities of Mexico's financial system: Practical case study SOFOM E.N.R. in Villahermosa, Tabasco

Metodología para la medición de la competitividad de organizaciones que pertenecen a las actividades auxiliares de crédito del sistema financiero en México: Caso práctico SOFOM E.N.R. en Villahermosa, Tabasco

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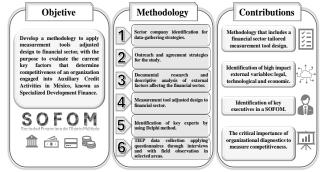


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#### Abstract

In today's business environment, analysing organizational competitiveness has become a critical factor to success and sustainability of companies. In Mexico's financial system structure, exist certain organizations that have revolutionized the financial sector and emerged as alternative funding sources for micro, small, and medium-sized companies, known as Specialized Development Finance, or Auxiliary Credit Activities [SOFOM]. This study focuses on proposing a methodology to help companies in this sector implement sector tairoled measurement tools, with the purpose that these tools will assess their current position relative to external factors, identify key factors of competitiveness that will allow to companies develop optimization strategies and continuous improvement.

#### Methodology to measure competitiveness of a SOFOM.



Methodology, Competitiveness, Multi-Purpose Financial Company [SOFOM]

#### Resumen

En el entorno empresarial actual, el análisis de la competitividad organizacional se ha convertido en un factor crítico para el éxito y la sostenibilidad de las empresas. En México dentro de la estructura del sistema financiero existen organizaciones que han revolucionado el sector financiero y que emergieron como alternativas de fuentes de financiamiento para micro, pequeñas y medianas empresas, denominadas banca de desarrollo o actividades auxiliares al crédito [SOFOM]. El presente estudio se centra en la propuesta de una metodología que permita a las empresas implementar instrumentos de medición adaptados al sector, con la finalidad de identificar la situación actual de la empresa con relación a los factores externos y así poder identificar los factores clave para el logro de la competitividad que les permita generar estrategias de optimización y mejora continua.

#### Metodología para la medición de competitividad de una SOFOM.



Metodología, Competitividad, Sociedad Financiera de Objeto Múltiple [SOFOM]

Area: Promotion of frontier research and basic science in all fields of knowledge

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#### Introduction

This article discusses a methodology for applying a measurement tool that identifies the key factors that make a company competitive in the financial sector.

This methodology is designed so that any company in the sector can implement it.

The proposed measurement tool is an adaptation of the Comprehensive Productivity Assessment Technique [TIEP], originally developed by, which has been adapted with elements relevant to the financial sector, specifically to assess the competitiveness of development banks or credit-related activities.

This study not only validates the usefulness of tools such as PESTEL, DELPHI and TIEP, but also provides a replicable model that allows these organisations to measure their current situation to transform findings into strategies improve concrete to competitiveness in a complex and highly environment, regulated financial thus contributing to the strengthening of a key segment for financial inclusion in Mexico.

Background context in the study of economic variables, one of the main systems in Mexico is the financial system, which incorporates certain entities that form part of this macro-system [Quintana Adriano, E. A. 2018].

According to, the Mexican financial system is made up of the banking sector, the auxiliary organisations and activities sector, the insurance and surety sector, and the savings and popular credit sector.

Considering the thesis of [Carrillo Pérez 2010], it concludes that within the financial structure, private investment is one of the main drivers of the economy and sources of income for any region.

To identify the organisations studied in this research, the structure within the financial system is shown below: Banco de México

Comisión Nacional para la Protección y Defensa de Instituto de Protección al Aborro Bancario (IPAB)

Comisión Nacional Bancaria y de Valores (CNNU)

Fondos y Fideicomisos Públicos

Sector de Aborro para el Retiro (CONNAR)

Sector de Aborro para el Retiro (CONNAR)

Fondos y Fideicomisos Públicos

Sector Bursátil

Organizaciones y Actividades Auxiliares al Crédito

Organizaciones (Crédito Crédito Crédito Crédito Carabico Manciens de Crédito Credito Credito Carabico Manciens de Crédito Credito Credito Carabico Manciens de Crédito Credito Carabico Manciens de Crédito Credito Credito Credito Carabico Manciens de Crédito Credito Credito Carabico Manciens de Credito Carabico Manciens de Credito Credito Carabico Manciens de Carabico Manciens de Credito Carabico Manciens de Carabico Manciens de Carabico Manciens de Carabico Manciens de Credito Carabico Manciens de Carabico Manciens

Figure 1

Structure of the financial system in Mexico Source: Ministry of Finance and Public Credit, [2015].

In the wake of the 2008 crisis in Mexico, new sources of financing emerged to meet microcredit needs, including Multiple Purpose Financial Institutions [SOFOMs] [Galaz & Ruiz, 2012].

should be noted It that these organisations arose from a business opportunity that was not being met by a large part of the population of small and medium-sized enterprises, mainly in non-urban areas. As mentioned above, competitiveness is related to their skills and knowledge of socio-economic, environmental and political issues [Codas Benítez, M. 2012]. These external variables are used to design sustainable strategies aimed at improving the societies in which they operate.

According to, the application of measurement instruments is important for evaluating the parameters that affect productivity and, therefore, competitiveness.

#### **Problem Statement.**

There is a need to understand in greater depth the factors that ensure the competitive success of organisations in the financial sector and how they can achieve sustainable business growth. This is why research and proposals are needed to analyse the current situation of organisations to propose models for improvement.

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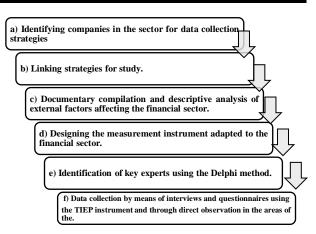
#### Justification and importance of the analysis

The results of this research will have significant theoretical implications, with a proposed methodology for measuring the main factors that influence the competitiveness of credit-related organisations and activities in Mexico and how they can achieve sustainable growth, considering the following:

- Relevance of the financial sector.
- Challenges in a changing business environment.
- Impact on sustainable growth.
- Lack of specific research on this topic.

#### Methodology

#### Box 2



#### Figure 2

Process of applying the measuring instrument Source: Author's elaboration [2025]

#### **Identifying companies in the sector for** a) data collection strategies

#### **Techniques:**

- official registers Consult [CNBV, CONDUSEF, ASOFOM].
- Analyse sectoral databases [Bureau of Financial Institutions, SHCP reports].
- Segment by key variables: size, capital and geographic location.

#### b) Linkage strategies for study

selected Establish agreements with the organisations to facilitate the research.

#### **Techniques:**

✓ Manage meetings with management and compliance areas.

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- ✓ Draw up confidentiality agreements to protect sensitive data.
- ✓ Coordinate with trade associations, such as the Mexican Association of SOFOMES [ASOFOM] for access to aggregate information.

#### Desk review and descriptive analysis of external factors affecting the financial sector

Conduct a comprehensive review of primary and secondary sources to identify and assess the economic, political, technological, social, legal and environmental factors that impact the financial sector.

#### **Techniques:**

External analysis using the PESTEL tool to identify external variables affecting the field of study.

With the results provided by the PESTEL analysis it is possible to have a favourable view when conducting market research, creating strategies, developing products and making better decisions for the organisation [Amador Mercado, 2022].

#### Design of the measurement instrument d) adapted to the financial sector. **Techniques:**

Adaptation of the TIEP tool to reflect the particularities of the financial sector obtained in the PESTEL analysis.

Eliseo Dantés et al. [2024] in their book describes the Integrated Productivity Evaluation Technique, hereafter referred to as TIEP, which is based on 10 priority elements in any organisation, either from an intangible or tangible point of view, as both aspects need to be considered when measuring productivity.

Develop a supporting questionnaire, to guide the tools and their relationship to external variables.

The questionnaire is one of the instruments that are designed for conducting the interview itself and one of the most important factors is the preparation of the interviewers [Muñoz Rocha, 2015].

#### e) Identification of key experts using the Delphi method

The Delphi method allows structuring a communicative process of various experts organised in a panel group in order to shed light on a research problem. [García & Lena, 2018].

#### **Techniques:**

 Apply the Delphi method to identify the key experts in a Credit Support Activities organisation.

According to López Gómez, [2018], the number of experts may vary, but suggests a minimum of 7 experts and a focus on the quality of the collective.

- Validating initial hypotheses on productivity and competitiveness.
- f) Data collection by means of interviews and questionnaires using the TIEP instrument and by direct observation in the areas.

Obtain qualitative and quantitative data on the sector's challenges and opportunities.

#### **Techniques:**

 Conduct a semi-structured face-to-face interview with experts in the selected areas.

The interview is a means of gathering data to verify a hypothesis in the research, which allows for the collection of data on the current situation of the company [Muguira, 2025].

#### Box 3



Figure 3

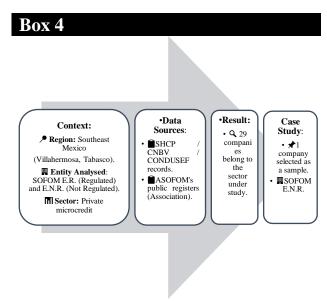
Semi-structured face-to-face interview.

Source:[Muguira, 2025].

#### Case study SOFOM E.N.R.

The application of the methodology is carried out in the city of Villahermosa, in the State of Tabasco applying the methodology:

a) Identifying companies in the sector for data collection strategies.



#### Figure 4

Process of identification of credit support activities in Villahermosa, Tabasco, Mexico.

Source: Author's elaboration [2025]

#### b) Linkage strategies for study

#### Box 5

A meeting is arranged with the director of a SOFOM E.N.R. with whom agreements will be established in March 2025 for the application of the instrument in the organisation.



2. The Mexican Association of SOFOMES (ASOFOM) is contacted for a brief interview with experts in the area.

#### Figure 5

Strategies for linking with SOFOM E.N.R. Source: Author's elaboration [2025]

c) Desk review and descriptive analysis of external factors affecting the financial sector.

The PESTEL analysis was conducted based on documentary research, where each factor is rated on a scale of 1 to 5, where: 1 = Low impact - 5 = High impact.

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#### Box 6

#### Table 1

Detailed PESTEL Analysis for the financial sector

FACTOR	EVAL.	CAL.	%	
POLITICAL FACTORS	22			
Government regulation of interest rates	Favourable	5		
Political stability	Neutral	3		
Financial inclusion policies  Corruption in the financial sector	Defiant	1		
Relations between government and institutions	Favourable Neutral	5 3		
Consumer protection legislation	Defiant	1	11.64%	
Fiscal incentives for microcredit	Defiant	1		
Government control of external financing	Defiant	1		
Labour reforms impacting hiring	Defiant Defiant	1		
Competition laws in the financial sector	1			
ECONOMIC FACTORS		34		
Inflation	Neutral	3		
Exchange rate	Neutral	3		
Unemployment rate	Favourable	5		
Availability of credit in the market	Neutral	3		
Economic growth of the country	Favourable	5	17.99%	
Central bank monetary policy	Neutral	3		
Accessibility to international financing Operating costs	Defiant Defiant	1		
Stability of the banking system	Favourable	5		
Demand for microcredit by SMEs	Favourable	5		
•				
SOCIO-CULTURAL FACTORS	l .v	31		
Level of financial education in the population	Neutral	3		
Attitudes towards indebtedness  Population growth rate	Favourable Neutral	5		
Change in family structure	Favourable	5	16.40%	
Unemployment	Defiant	1		
Preference for technology in financial services	Defiant	1		
Poverty levels	Neutral	3		
Income inequality	Neutral	3		
Rural-urban migration	Defiant	1		
Savings culture vs. immediate consumption	Neutral	3		
Culture of conformity	Neutral	3		
Culture of conformity  TECHNOLOGICAL FACTORS	Neutral	30		
	Neutral Defiant			
TECHNOLOGICAL FACTORS Access to financial technology platforms Security and data protection technologies	Defiant Neutral	30 1 3		
TECHNOLOGICAL FACTORS  Access to financial technology platforms  Security and data protection technologies  Automation of financial processes	Defiant Neutral Favourable	30 1 3 5		
TECHNOLOGICAL FACTORS  Access to financial technology platforms  Security and data protection technologies  Automation of financial processes  Innovations in mobile applications	Defiant Neutral Favourable Neutral	30 1 3 5 3		
TECHNOLOGICAL FACTORS  Access to financial technology platforms Security and data protection technologies Automation of financial processes Innovations in mobile applications Investment in technology infrastructure	Defiant Neutral Favourable Neutral Favourable	30 1 3 5 3 5	15.87%	
TECHNOLOGICAL FACTORS  Access to financial technology platforms Security and data protection technologies Automation of financial processes Innovations in mobile applications Investment in technology infrastructure Artificial intelligence for credit analysis	Defiant Neutral Favourable Neutral Favourable Defiant	30 1 3 5 3 5 1	15.87%	
TECHNOLOGICAL FACTORS  Access to financial technology platforms Security and data protection technologies Automation of financial processes Innovations in mobile applications Investment in technology infrastructure Artificial intelligence for credit analysis Internet availability in rural areas	Defiant Neutral Favourable Neutral Favourable	30 1 3 5 3 5	15.87%	
TECHNOLOGICAL FACTORS  Access to financial technology platforms  Security and data protection technologies  Automation of financial processes  Innovations in mobile applications  Investment in technology infrastructure  Artificial intelligence for credit analysis  Internet availability in rural areas  Use of cybersecurity in financial transactions  Development of digital payment systems	Defiant Neutral Favourable Neutral Favourable Defiant Neutral	30 1 3 5 3 5 1 3	15.87%	
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TECHNOLOGICAL FACTORS  Access to financial technology platforms  Security and data protection technologies  Automation of financial processes  Innovations in mobile applications  Investment in technology infrastructure  Artificial intelligence for credit analysis  Internet availability in rural areas  Use of cybersecurity in financial transactions  Development of digital payment systems  Ability to monitor payments in real time  ECOLOGICAL-ENVIRONMENTAL FACT  Financing policies for sustainable projects  Impact of climate change on local businesses	Defiant Neutral Favourable Neutral Favourable Defiant Neutral Neutral Oefiant Favourable Defiant Defiant Favourable ORS Defiant Defiant	30 1 3 5 3 5 1 3 3 1 5 26 1	15.87%	
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TECHNOLOGICAL FACTORS  Access to financial technology platforms Security and data protection technologies Automation of financial processes Innovations in mobile applications Investment in technology infrastructure Artificial intelligence for credit analysis Internet availability in rural areas Use of cybersecurity in financial transactions Development of digital payment systems Ability to monitor payments in real time  ECOLOGICAL-ENVIRONMENTAL FACT Financing policies for sustainable projects Impact of climate change on local businesses Micro-credit initiatives for green projects Natural disasters affecting operations Environmental standards Energy consumption of offices and systems Environmental impact of business travel Social pressure for sustainable practices Resource scarcity in rural areas Changes in agriculture affecting customers  LEGAL FACTORS Data Protection Act compliance Changes in lending regulations Financial consumer protection laws Legal liability for customer defaults Employment regulations Credit agreement regulations	Defiant Neutral Favourable Neutral Favourable Defiant Neutral Defiant Favourable ORS Defiant Defiant Defiant Defiant Defiant Neutral Favourable Defiant Neutral Favourable Defiant Neutral Favourable Favorable	30 1 3 5 3 5 1 3 3 1 5 26 1 1 3 5 1 3 5 1 3 5 1 3 5 1 3 5 1 3 5 5 6 7 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	13.76%	
TECHNOLOGICAL FACTORS Access to financial technology platforms Security and data protection technologies Automation of financial processes Innovations in mobile applications Investment in technology infrastructure Artificial intelligence for credit analysis Internet availability in rural areas Use of cybersecurity in financial transactions Development of digital payment systems Ability to monitor payments in real time  ECOLOGICAL-ENVIRONMENTAL FACT Financing policies for sustainable projects Impact of climate change on local businesses Micro-credit initiatives for green projects Natural disasters affecting operations Environmental standards Energy consumption of offices and systems Environmental impact of business travel Social pressure for sustainable practices Resource scarcity in rural areas Changes in agriculture affecting customers  LEGAL FACTORS Data Protection Act compliance Changes in lending regulations Financial consumer protection laws Legal liability for customer defaults Employment regulations for employees Tax regulations Credit agreement regulations Anti-money laundering compliance Unfair competition law	Defiant Neutral Favourable Neutral Favourable Defiant Neutral Defiant Favourable ORS Defiant Defiant Neutral Defiant Neutral Favourable Defiant Neutral Favourable Favorable	30 1 3 5 3 5 1 3 3 1 5 26 1 1 3 5 1 3 5 1 3 5 1 3 5 1 5 5 5 5 5 5 5 5 5 5 5 5 5	13.76%	

Source: Author's elaboration [2025]

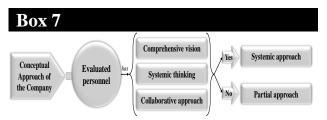
#### d) Design of the measurement instrument tailored to the financial sector

#### Integrated Productivity Evaluation Technique [TIEP]

Eliseo Dantés et al., [2024], mentions that the first step we must take as evaluators is to have a systemic and integral approach, if this aspect does not exist, we must really consider that we will have biases.

Proposed elements.

#### 1. Conceptual approach to the company:



#### Figure 6

Description of the company's conceptual approach.

Source: Author's elaboration [2025]

#### Box 8

#### Table 2

Proposed evaluation for the financial sector of the firm's conceptual approach

Element	Evaluation in the financial						
	sector						
Systemic approach	<ul> <li>✓ Assess that all areas have strategies aligned with the integral vision of the organisation.</li> <li>✓ Assess that there is coordination between areas with systemic thinking.</li> <li>✓ Evaluate that there is fluid communication between areas with a collaborative approach.</li> </ul>						

Source: Author's elaboration [2025]

#### 2. Knowledge of processes:

## Knowledge of processes Evaluated personnel Knows and understands Integral processes Sources of information

#### Figure 7

#### 2. Process knowledge

Source: Author's elaboration [2025]

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Romero-Hernández, Anaid, Notario-Priego, Ezequiel, Pérez-Vázquez, Adrián and Can-Salazar, Montserrat. [2025]. Methodology to measurement of competitiveness in organizations belonging to the auxiliary credit activities of Mexico's financial system: Practical case study SOFOM E.N.R. in Villahermosa, Tabasco. Journal Economic Development. 12[32]1-11: e31232111.

#### **Box 10**

#### Table 3

Proposal for an assessment of process knowledge for the financial sector.

Element	Evaluation in the financial sector
Integral processes	✓ Assess knowledge and understanding of interconnected operational processes between areas.
Comprehensive evaluation	✓ Assess the alignment between areas with the organisation's vision.
Sources of information	✓ Assess knowledge of the origin of information in all processes and its integration with internal and external data.

Source: Author's elaboration [2025]

#### 3. Social scope of the organisation:

#### **Box 11**

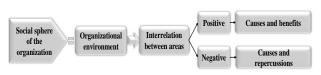


Figure 8

3. Social scope of the organisation

Source: Author's elaboration [2025]

#### **Box 12**

#### Table 4

Assessment proposal for the financial sector of the organisation's social field.

Element	Evaluation in the financial						
	sector						
	✓ Assess the interrelationship						
	and coordination between						
	areas, their causes and						
Organisational	benefits or repercussions.						
environment	✓ Assess operational efficiency						
	and adaptation to change.						
	✓ Assess trust between						
	hierarchical levels.						

Source: Author's elaboration [2025]

#### 4. Planning management:

#### **Box 13**



#### Figure 9

4. Planning management

Source: Author's elaboration [2025]

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#### **Box 14**

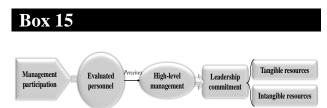
#### Table 5

Proposed evaluation for the financial sector of the Planning Administration.

1 faining Administration.								
Element	Evaluation in the financial sector							
Internal policies	✓ Assess whether they have							
and	guidelines for operating							
organisational	ethically and compliantly,							
culture	aligned with their vision and							
	objectives.							
Project planning	✓ Assess whether they plan, anticipate and evaluate to increase profitability with clear action plans.							
Indicator	✓ Assess whether the company							
monitoring	has key performance							
KPI's	indicators in place, adjusting tactics accordingly.							

Source: Author's elaboration [2025]

#### 5. Management participation:



#### Figure 10

5. Management participation

Source: Author's elaboration [2025]

#### **Box 16**

#### Table 6

Proposed assessment for the financial sector of managerial involvement.

Element	Evaluation in the financial sector
Tangible	✓ Assess the physical and
resources	financial components that
	support operations.
Intangible	✓ Assessing non-material
resources	components that influence
	performance and external
	perception.
Leadership	✓ Assess the degree of senior
commitment	management involvement in
	operational strategies.

Source: Author's elaboration [2025]

#### 6. Organisational Creativity and Innovation:



#### Figure 11

#### 6. Organisational Creativity and Innovation

Source: Author's elaboration [2025]

Romero-Hernández, Anaid, Notario-Priego, Ezequiel, Pérez-Vázquez, Adrián and Can-Salazar, Montserrat. [2025]. Methodology to measurement of competitiveness in organizations belonging to the auxiliary credit activities of Mexico's financial system: Practical case study SOFOM E.N.R. in Villahermosa, Tabasco. Journal Economic Development. 12[32]1-11: e31232111.

https://doi.org/10.35429/JED.2025.12.32.3.1.11

#### **Box 18**

#### Table 7

Proposal for the evaluation of organisational creativity and innovation in the financial sector.

Element	Evaluation in the financial sector								
Responsiveness to challenges	✓ Assess skills to identify opportunities and threats and capacity to implement solutions.								
Continuous improvement	✓ Assess systemic process optimization and quality and efficiency standards.								
Cross-cutting application	✓ Evaluate the integration of innovation at all hierarchical levels.								

Source: Author's elaboration [2025]

#### 7. Knowledge of the client[s]:

## Knowledge of the client(s) Personnel evaluated Figure 12 Internal External

7. Knowledge of the client[s]

Source: Author's elaboration [2025]

#### **Box 20**

#### Table 8

Proposed assessment of customer knowledge for the financial sector [s].

imanciai sector [s	<u> </u>								
Element	<b>Evaluation in the financial sector</b>								
Cross-cutting strategy	✓ Assess whether all areas in addition to promoters, coordinators and credit have knowledge of the clients and the processes being used.								
Understanding customers	✓ Assess whether all areas understand the customer's needs, behaviours and risk profile.								
Omnichannel	✓ Assess whether there is integration of channels, physical, digital or telephonic.								

Source: Author's elaboration [2025]

#### 8. Technological development:

## Technological development Process systematization across all levels Process systematization and investment and investment specialized talent Strategic requirements

#### Figure 13

8. Technological development

Source: Author's elaboration [2025]

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#### **Box 22**

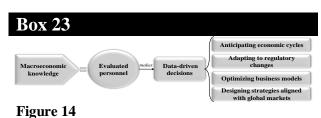
#### Table 9

Proposal for a financial sector assessment of technology development.

Element	Evaluation in the financial sector
Use of technology	<ul> <li>✓ Assess the use and knowledge of basic technology tools.</li> <li>✓ Assess the % of automated processes.</li> <li>✓ Assess technology certifications.</li> </ul>
Culture of innovation	✓ Assess whether they encourage a pro-technology mindset at all levels.

Source: Author's elaboration [2025]

#### 9. Macroeconomic knowledge:



9. Macroeconomic knowledge

Source: Author's elaboration [2025]

#### **Box 24**

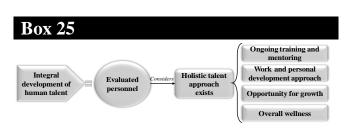
#### Table 10

Proposed assessment of macroeconomic knowledge for the financial sector.

Element	<b>Evaluation in the financial sector</b>							
Anticipation of	✓ Assess knowledge and							
economic	understanding of							
cycles	macroeconomic trend analysis							
	in order to generate strategies.							
Adaptation to	✓ Evaluate the implementation of							
regulatory	new regulations derived from							
changes	the monitoring of fiscal and							
	monetary policies.							
<b>Optimisation of</b>	✓ Assess the adaptability of							
business	product supply and							
models	profitability, derived from							
	inflation, interest rate, trade							
	balance and exchange rate							
	conditions.							
Strategy design	✓ Assess national and global							
	macroeconomic knowledge at							
	all levels and design strategies.							

Source: Author's elaboration [2025]

#### 10. Integral development of human talent:



#### Figure 15

10. Integral development of human talent

Source: Author's elaboration [2025]

Romero-Hernández, Anaid, Notario-Priego, Ezequiel, Pérez-Vázquez, Adrián and Can-Salazar, Montserrat. [2025]. Methodology to measurement of competitiveness in organizations belonging to the auxiliary credit activities of Mexico's financial system: Practical case study SOFOM E.N.R. in Villahermosa, Tabasco. Journal Economic Development. 12[32]1-11: e31232111. https://doi.org/10.35429/JED.2025.12.32.3.1.11

<u>Article</u>

#### **Box 26**

#### Table 11

Proposal for the financial sector to evaluate the integral development of human talent.

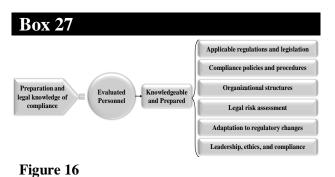
Element	Evaluation in the financial						
	sector						
Ongoing training	✓ Assessing the vision for						
and mentoring	strategic investment in						
	intellectual capital						
	✓ Assessing skills training in the						
	financial sector.						
Work and personal	✓ Assess integration of						
development	professional goals with						
approach	individual development plans.						
Opportunity for	✓ Assess whether a clear merit-						
growth	based promotion and internal						
	mobility structure is in place.						

Source: Author's elaboration [2025]

Two new elements are proposed to be added to the TIEP tool, derived from the PESTEL analysis, which identifies that the legal environment has a greater impact on the financial sector, since the TIEP does not consider the legal aspect. The new elements are presented below:

#### 11. Legal compliance preparation and knowledge:

All areas of a financial organisation must know and understand the applicable guidelines and regulations, processes and customer relations. Failure to understand these could lead to errors and even legal non-compliance, which directly affects the company's ability to meet the requirements of funding companies and valuation companies [Galaz & Ruiz, 2012].



11. Preparation and legal knowledge of compliance *Source: Author's elaboration [2025]* 

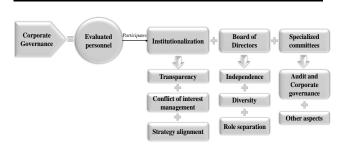
#### 11. Corporate governance:

Corporate governance has become critically important in today's financial sector, where the adoption of best practices not only generates value and competitive advantages, but also responds to market regulatory requirements [Galaz & Ruiz Urquiza, 2009].

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#### **Box 28**



#### Figure 17

12. Corporate governance

Source: Author's elaboration [2025]

#### **Design of the TIEP measurement tool:**

It is important to consider that each company is different, so the weight of the element may vary, and it is recommended to adapt it to the specific needs of the organisation.

Below is how the scores are assigned to each factor for SOFOM E.N.R.

#### **Box 29**

#### Table 12

TIEP [Integrated Productivity Evaluation Technique].]									٠]			
	Economic	Variable	Political Variable		Environmen al Variable		Variable Culture		Technologic: Variable		Variable Social	
Element	Weight	Ev.	Weight	Ev.	Weight	Ev.	Weight	Ev.	Weight	Ev.	Weight	Ev.
1. Conceptual approach to the company.	0.22	E	0.00	Е	0.05	Е	0.20	E	0.10	Е	0.25	Е
2. Knowledge of the processes.	0.23	E	0.18	Е	0.14	E	0.20	E	0.15	Е	0.10	Е
3. Social scope of the organisation.	0.12	Е	0.10	Е	0.14	Е	0.25	Е	0.05	Е	0.34	Е
4. Planning management.	0.25	Е	0.25	Е	0.25	Е	0.10	Е	0.05	Е	0.10	Е
5. Management participation.	0.25	Е	0.20	Е	0.05	Е	0.14	Е	0.05	Е	0.31	Е
6. Creativity, organisational and open innovation.	0.12	E	0.10	E	0.05	E	0.17	Е	0.25	Е	0.31	Е
7. Knowledge of the client[s].	0.14	Е	0.10	Е	0.35	Е	0.10	Е	0.05	Е	0.26	Е
8. Technological development.	0.14	E	0.05	E	0.05	E	0.10	E	0.45	E	0.21	Е
9. Macroeconomic knowledge.	0.20	Е	0.25	Е	0.25	Е	0.18	E	0.05	Е	0.07	Е
10. Integral development of human talent.	0.12	E	0.10	Е	0.05	Е	0.2	E	0.35	Е	0.18	Е
11. Legal preparation and knowledge of compliance.	0.23	E	0.26	E	0.05	E	0.14	Е	0.18	Е	0.14	E
12. Corporate governance.	0.25	Е	0.15	Е	0.05	Е	0.25	Е	0.05	Е	0.25	Е

Source: Author's elaboration [2025], based on TIEP., Eliseo Dantés et al., [2024]

#### Questionnaire design

For the application of the questionnaire, it is suggested to avoid generic or ambiguous questions, questions for a questionnaire should be short, simple, clear and precise [García Alcaraz et al., 2006].

Romero-Hernández, Anaid, Notario-Priego, Ezequiel, Pérez-Vázquez, Adrián and Can-Salazar, Montserrat. [2025]. Methodology to measurement of competitiveness in organizations belonging to the auxiliary credit activities of Mexico's financial system: Practical case study SOFOM E.N.R. in Villahermosa, Tabasco. Journal Economic Development. 12[32]1-11: e31232111.

https://doi.org/10.35429/JED.2025.12.32.3.1.11

#### **Box 30**

#### Table 13

Examples of generic vs. specific questions applicable to the financial sector.

Generic question	Specific question
What do you think of the company's vision?	How have you adapted the company's vision in the face of regulatory changes?
Do you know the processes in your area?	What changes have you implemented in your processes due to the current volatile economy?
What do you consider the working climate of the company to be like?	How does labour turnover impact the retention of key talent?
Do they know their customers?	How has insecurity in the state affected your risk analysis strategies?
Do they train their staff?	What certification programmes have you created to adapt to the CNBV 2024 compliance regulations?

Source: Author's elaboration [2025].

#### e) Identification of key experts using the Delphi method.

A meeting is held in March 2025 in which a meeting is held with 5 expert managers, identifying the following areas:

Compliance Officer, General Management, Legal, Credit, Portfolio, Companies, Funding, Treasury, Accounting, Human Resources and Materials and IT and Systems, who are part of the senior management of the company.

## ASAMBLEA DE ACCIONISTAS CONSEJO DE ADMINISTRACIÓN COMITÉ DE COMITÉ DE CARTERA OFICIAL DE CUMPLIMIENTO DIRECTOR GENERAL JURÍDICO ASISTENTE DE DIRECCIÓN CRÉDITO FONDEO CONTABILIDAD EMPRESAS CARTERA TESORERÍA RECURSOS HUMANOS Y MATERIALES

Figure 18

Organigram SOFOM E.N.R.

Source: SOFOM E.N.R. [2025].

f) Data collection by means of interviews and questionnaires using the TIEP instrument and by direct observation in the areas.

It is suggested that the interviews be conducted in a maximum of 60 minutes, in order to allow managers to feel comfortable and have the time to participate at ease.

#### **Box 32**

#### Table 14

Structure of the Scheduled Interview Agenda

Time	Activity	Method
0 to 10	Presentation of the	-
minutes	study	
10 to 15	Structured	Quantitative
minutes	questionnaire	
25 to 50	Discussion of	Semi-
minutes	responses	structured
		interview
50 to 60	Closing the interview	-
minutes		

Source: Author's elaboration [2025].

To apply the tool, a Gantt chart is drawn up. This is a graphical and visual aid used for planning, in this case with the aim of applying the tools to the selected areas of the organisation [Terrazas Pastor, 2011].

The application of the tool is scheduled over a period of 16 weeks, beginning with interviews at management level and followed by direct observation of how the areas operate.

#### Box 33

ACTIVITIES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Interview design																
Interview application (area one)																
Interview application (area two)																
Interview application (area three)																
Interview application (area four)																
Interview application (area five)																
Interview application (area six)																
Interview application (area seven)																
Interview application (area eight)																
Interview application (area nine)																
Interview application (area ten)																
Interview application (area eleven)																
Technical report development																
Executive presentation development																

Figure 19

Instrument application schedule

Source: Author's elaboration [2025].

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Once the data has been obtained using the TIEP instrument, a comprehensive analysis must be carried out with the aim of validating the information, verifying the quantitative data through statistical data with qualitative data through interviews, in order to identify biases in the responses obtained [López & Eliseo, 2017], The results must then be interpreted in order to finally design an improvement proposal with models that include strategic solutions applicable to organisations in the sector and actions based on the findings collected.

#### **Results**

The study proposes a methodology for measuring the current competitiveness of a SOFOM E.N.R. in Villahermosa, Tabasco. The key findings were:

# 1. Critical factors of financial sector competitiveness: • High legal and regulatory impact (24.3%): They must be adaptable to regulatory compliance (AML, CNBV) and adapt to legislative changes. • High technological impact (15.9%): They must automate processes and adopt digital tools to stay ahead of the curve. • High macroeconomic impact (17.9%): They must manage strategies to adapt to interest rates, inflation and economic cycles.. 2. Hypotheses of identified gaps: • Low open innovation. • Lack of technological integration. • Lack of regulatory knowledge. 3. Identified areas of opportunity: • Human talent management. • Corporate governance. • Compliance management and risk mitigation. • Comprehensive systemic approach.

Figure 20

Results obtained in the research

Source: Author's elaboration [2025].

#### Conclusions

This study demonstrates that the competitiveness of credit-related activities in Mexico depends critically on three interconnected pillars: regulatory adaptability, technological transformation, and strategic talent management.

The results reveal that SOFOMs that adopt a comprehensive approach based on innovation, macroeconomic analysis, and corporate governance will not only mitigate operational risks but will also be able to capitalise on opportunities in markets underserved by traditional banks, thereby differentiating themselves from the competition.

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The proposed methodology is supported by a PESTEL analysis, which confirms that productivity in this sector is directly linked to the interrelationship between areas and the legal context. This allows for the adaptation of measurement tools such as the TIEP to evaluate critical variables, provided that the particularities of the external environment are taken into account.

The case study in Villahermosa shows that, in the face of the advance of fintech, SOFOMs must evolve from simple credit providers inclusive financial solution to managers, institutionalising their operations to comply with increasingly demanding regulations. This work lays the foundation for applying these findings in other regions of Mexico, using key performance indicators [KPIs] to measure productivity in a dynamic and highly competitive market.

Future research will analyse the specific results of the methodological application, with the potential to generate key factors for competitiveness that are transformative for the financial sector.

#### **Declarations**

#### **Conflict of interest**

The authors declare that they have no conflict of interest. They have no known competing financial interests or personal relationships that could have appeared to influence the article reported in this article.

#### **Contribution of authors**

Romero-Hernández, Anaid: Documentary compilation of instruments, adaptation of measurement tools and methodology.

Notario-Priego, Ezequiel: Supervision.

Pérez-Vázquez, Adrián: Supervision.

*Can-Salazar, Montserrat:* Contribution of ideas for the adaptation of the TIEP.

#### Availability of data and materials

Publicly available.

#### **Funding**

#### No funding.

Romero-Hernández, Anaid, Notario-Priego, Ezequiel, Pérez-Vázquez, Adrián and Can-Salazar, Montserrat. [2025]. Methodology to measurement of competitiveness in organizations belonging to the auxiliary credit activities of Mexico's financial system: Practical case study SOFOM E.N.R. in Villahermosa, Tabasco. Journal Economic Development. 12[32]1-11: e31232111.

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#### **Abbreviations**

ASOFOM Asociación de Sociedades Financieras de Objeto Múltiple en México A.C. [Association of Multiple Purpose Financial Companies in Mexico].

CNBV National Banking and

Securities Commission.

CONDUSEF Comisión Nacional para la

protección y Defensa de los Usuarios de Servicios Financieros [National Commission for the Protection and Defence of Financial

Services Users].

KPIs Key Performance Indicators.
PESTEL Political, Economic, Social,

Technological, Ecological and

Legal.

SOFOM Sociedad Financiera de Objeto

Múltiple.

TIEP Integrated Productivity

Assessment Technique.

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