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### THE IMPLICATIONS OF INTEREST CAPITALIZATION ON THE PROFITABILITY OF MICROCREDIT OPERATIONS: A CASE STUDY OF TXI MICROCRÉDITO IN NAMPULA (2022–2024)

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**Abstract :** This study focuses on the implications of the interest capitalization process on the profitability of microcredit operations, using Txi Microcrédito in the city of Nampula as a case study for the period from 2022 to 2024. The overall objective of the research was to analyze how interest capitalization affects the profitability of microcredit operations. Specifically, it sought to characterize the interest capitalization process, identify the determinants of profitability, and interpret the relationship between capitalization and financial indicators. Methodologically, the study adopted a qualitative approach, framed within an interpretive paradigm, using the inductive method and case study. The research participants included credit supervisors, credit analysts, portfolio managers, administrative assistants, and a regional coordinator from Txi Microcrédito. Data collection was carried out through semi-structured interviews, direct observation, and document analysis, with the data being processed using thematic content analysis. The results reveal that interest capitalization, especially under the monthly compound interest regime, contributes significantly to strengthening institutional profitability, reflecting positively on financial indicators such as operating margin, ROA, and ROE. However, it was found that frequent capitalization increases the effective cost of credit, affecting borrowers' ability to pay and increasing the likelihood of default. It is concluded that interest capitalization has an ambivalent effect, strengthening the financial sustainability of the institution but posing challenges to its social function. The study suggests the adoption of capitalization models that are more adjusted to the socioeconomic reality of customers, greater transparency, and investment in financial education.

**Keywords:** Capitalization, interest; Implications; Microcredit; Profitability.

## Context

This study, entitled “*The Implications of the Interest Capitalization Process on the Profitability of Microcredit Operations: Case Study of Txi Microcredit in Nampula (2022–2024)*,” falls within the field of microfinance and analyzes how interest capitalization simultaneously influences the economic sustainability of microcredit institutions and the payment capacity of their clients. Microcredit has been widely recognized as an instrument for financial inclusion and the promotion of socioeconomic development, but recent studies show that its impacts depend on the design of financial products, the level of financial literacy, and the regulatory framework (Armendáriz & Morduch, 2010; Cull, Demirgüç-Kunt & Morduch, 2018). In this context, interest capitalization, although relevant to ensuring the profitability and continuity of microfinance institutions, can increase the effective cost of credit and weaken the social function of microcredit when applied frequently and in a non-transparent manner (Schicks, 2013). In Mozambique, particularly in the city of Nampula, the intensification of monthly interest capitalization by Txi Microcrédito since 2022, in response to adverse macroeconomic factors, highlights the tension between financial sustainability and social inclusion, making empirical analysis of this practice relevant to support institutional management, sector regulation, and the advancement of scientific knowledge in microfinance.

## Justification

The choice of the theme “*The Implications of the Interest Capitalization Process on the Profitability of Microcredit Operations: A Case Study of Txi Microcrédito in Nampula (2022–2024)*” is based on personal, social, academic, and economic reasons, giving scientific and practical relevance to this research.

On a personal and social level, the motivation stems from the researcher’s direct contact with the socioeconomic reality of Nampula, where microcredit is a central source of financing for small businesses and informal activities. Observing the difficulties borrowers have in making payments and the cumulative effects of frequent interest capitalization sparked an interest in understanding the impact of these practices on families’ repayment capacity and well-being in a context marked by low levels of financial literacy.

In academic terms, the study is justified by the scarcity of empirical research in the Mozambican context that analyzes the relationship between interest capitalization, institutional profitability, and clients’ ability to pay. The analysis of real data from Txi Microcrédito contributes to the advancement of scientific knowledge in the field of microfinance.

At the economic and institutional level, the research is relevant in view of the sustainability challenges faced by microfinance institutions in a context of high inflation, significant operating costs, and increased regulation of the financial sector. The results of the study may support the improvement of credit granting practices and the promotion of financially viable and socially responsible microcredit.

## Objectives

### General Objective

To analyze the implications of the interest capitalization process on the profitability of Txi Microcrédito’s microcredit operations.

### Specific Objectives

- Characterize the interest capitalization process applied in Txi Microcrédito’s microcredit operations, focusing on its structure and frequency;
- Identify the determining factors of profitability in microcredit operations and their relationship with the practice of interest capitalization;
- Interpret the relationship between interest capitalization and profitability, highlighting the effects of this practice on the institution’s main financial indicators.

## Problem

Microcredit has established itself as one of the main instruments for financial inclusion and the promotion of socioeconomic development, by facilitating access to credit for populations excluded from the formal banking system. However, the sustainability of microfinance institutions requires financial mechanisms that guarantee profitability and risk control, especially in a context of high operating costs and default risk.

In this context, interest capitalization plays a central role, allowing interest to be periodically added to the outstanding prin-

cial, strengthening the financial margin and improving indicators such as Return on Assets (ROA) and Return on Equity (ROE). However, when associated with high rates and low levels of financial literacy, this practice can lead to over-indebtedness among borrowers, compromising the social function of microcredit.

In Mozambique, and particularly in Nampula, this tension between financial sustainability and social inclusion became more evident from 2022 onwards, when Txi Microcrédito intensified the application of compound interest with monthly capitalization in response to adverse macroeconomic factors. Although this strategy contributed to improved profitability indicators, there was a simultaneous increase in defaults and payment difficulties on the part of borrowers.

This reality highlights a gap in the literature and institutional practice, as the concrete impacts of interest capitalization on the profitability of institutions and the payment capacity of clients remain unclear, especially in African contexts marked by economic instability. Thus, the experience of Txi Microcrédito in Nampula, from 2022 to 2024, provides a privileged field for empirical analysis of this issue.

This leads to the following central research question:

**How does interest capitalization influence the profitability of microcredit operations at Txi Microcrédito?**

### Research questions

✓ How is the interest capitalization process applied in Txi Microcrédito's microcredit operations characterized in terms of structure, regime, and periodicity?

✓ What are the determining factors of profitability in Txi Microcrédito's microcredit operations (e.g., interest rate, capitalization frequency, term of operations, interest regime, default rate, and operating costs) and how do these factors interact with each other?

✓ How does interest capitalization relate to the institution's profitability indicators, namely Return on Assets (ROA), Return on Equity (ROE), and operating profit margin?

## LITERATURE REVIEW

This chapter presents a review of the literature on microcredit, highlighting its historical evolution, theoretical foundations, and institutional framework. It addresses simple and compound interest regimes and interest capitalization in financial operations.

### Microcredit

Microcredit is widely conceptualized in the literature as an innovative response to the limitations of traditional banking systems, especially in contexts marked by structural financial exclusion. In addition to its economic function, microcredit takes on a relevant social and community dimension by providing access to finance for individuals traditionally excluded from the formal financial system.

According to Yunus (2006), microcredit consists of granting small loans without collateral requirements, aimed at promoting self-employment and economic autonomy among beneficiaries (p. 34). This definition is widely adopted in the literature because it emphasizes the inclusive nature of microcredit, which is particularly relevant in

contexts such as Nampula. Armendáriz and Morduch (2010) expand on this concept by arguing that microcredit should be understood as a social and relational process based on trust, solidarity, and community commitment, distinguishing it from conventional banking practices (p. 57). This approach is particularly relevant in countries such as Mozambique, where social and cultural networks play a central role in the functioning of economic activities.

From a historical perspective, microcredit evolved from informal community credit practices, gaining international prominence in the 1970s with the creation of Grameen Bank in Bangladesh (Yunus, 1999). In the following decades, it expanded globally through non-governmental organizations and formal financial institutions, consolidating itself as a public policy tool to combat poverty (Armendáriz & Morduch, 2010). Subsequently, the sector diversified, integrating social and commercial models, and began to coordinate with national development strategies (Cull, Demirgüç-Kunt & Morduch, 2009; Ledgerwood, 2013; Robinson, 2001). However, authors such as Bateman (2010) warn of the risks of financializing poverty and using microcredit for consumption, with limited impact on sustainable development.

Regarding the **objectives of microcredit**, the literature identifies three central dimensions: social, economic, and institutional. Yunus (2007) highlights the eradication of structural poverty as the main objective, through the promotion of income-generating activities and economic autonomy (p. 88). Armendáriz and Morduch (2010) add social empowerment, particularly of women, and the strengthening of community solidarity networks as fundamental objecti-

ves (p. 115). Ledgerwood (2013), in turn, emphasizes that the effectiveness of microcredit depends on institutional sustainability, arguing that programs should be based on economically viable models that ensure operational continuity and financial resilience (p. 65).

In summary, microcredit is a multi-dimensional instrument of financial inclusion, whose impact depends on the balance between its social function, the promotion of local economic development, and the sustainability of the institutions that implement it.

In this research, the objectives of microcredit are understood as integrating three dimensions: (i) social, which aims to eradicate poverty and empower beneficiaries; (ii) economic, which seeks to foster entrepreneurship and the generation of sustainable income; and (iii) institutional, which ensures the viability of financing entities. In the context of Mozambique, particularly Nampula, the analysis of these objectives must consider the potential and limitations, as well as the risks associated with over-indebtedness and the sustainability of microcredit institutions.

## Impacts of Microcredit

Microcredit is widely recognized in the literature as an instrument of financial inclusion with significant economic, social, and cultural impacts. However, studies show that these impacts are neither homogeneous nor automatic, requiring critical and contextualized analysis.

From an **economic** point of view, microcredit is associated with income generation, the stimulation of self-employment, and the revitalization of local economies.

Yunus (2006) argues that microcredit enables small entrepreneurs to start economic activities and achieve financial autonomy (p. 93), while Ledgerwood (2013) highlights its contribution to increasing household liquidity and consumption and investment capacity (p. 131). However, Cull, Demirgüç-Kunt, and Morduch (2009) warn that these benefits depend on the sustainability of microfinance institutions, as institutional instability compromises the continuity of credit and reduces the socioeconomic gains of borrowers (p. 112). Critically, Bateman (2010) argues that, in many contexts, microcredit generates low-productivity subsistence activities and is insufficient to promote lasting structural change. Thus, the economic impacts tend to be significant in the short term but limited in the long term.

**Socially**, microcredit contributes to financial inclusion, community strengthening, and women's empowerment. Armendariz and Morduch (2010) highlight that access to credit increases women's control over economic resources and family decisions (p. 141). However, D'Espallier, Guérin, and Mersland (2013) point out that this empowerment can be limited when effective control of loans remains in the hands of men (p. 764). Ledgerwood (2013) also highlights the strengthening of solidarity networks and community cooperation (p. 145), while Banerjee and Duflo (2019) point to the contribution of microcredit to reducing social exclusion (p. 231). In contrast, Bateman (2010) warns of the risk of social tensions arising from over-indebtedness (p. 67). Thus, the social impacts are ambivalent.

In terms of **cultural impacts**, microcredit influences consumption habits, savings practices, and attitudes toward financial

management. Yunus (2006) associates microcredit with the promotion of a culture of financial responsibility and the valorization of self-employment (p. 97). Ledgerwood (2013) observes the emergence of new patterns of community organization and collective discipline (p. 152), while Banerjee and Duflo (2019) identify changes in behaviors related to risk and financial planning (p. 235). However, Bateman (2010) warns that the imposition of exogenous cultural models may conflict with traditional practices of solidarity (p. 72).

In summary, the impacts of microcredit must be understood in an integrated and critical manner. Although it is an important tool for financial inclusion, its effects depend on complementary policies, namely financial education, institutional monitoring, and adaptation to local sociocultural realities, so that it can contribute sustainably to economic and social development.

## Interest Capitalization Process

Interest capitalization is a central concept in finance, related to how interest accrues on capital over time and influences the profitability of financial transactions, including microcredit. In general terms, it corresponds to the process by which interest generated in a given period can be incorporated into the capital, producing different effects on the evolution of the amount owed or invested. The literature classically distinguishes between two capitalization regimes: the simple interest regime and the compound interest regime.

According to Gitman (2015), interest capitalization represents the mechanism by which interest is applied to the initial capital and, in the case of compound interest, also

to the accumulated interest, forming the basis of financial mathematics (p. 39). Complementarily, Ross, Westerfield, and Jaffe (2017) point out that capitalization incorporates the time value of money, with the distinction between simple and compound interest being decisive for financial decision-making (p. 27). This research adopts this perspective, recognizing that the capitalization regime used by microcredit institutions in Mozambique directly influences the costs borne by borrowers, access to credit, and the sustainability of operations.

## Implications of Interest Capitalization on Microcredit Profitability

Interest capitalization is one of the most decisive factors in the profitability of microcredit operations, simultaneously influencing the financial sustainability of institutions and the effective cost borne by borrowers. The capitalization regime adopted (simple or compound), as well as its frequency, conditions the evolution of financial charges, and can amplify both institutional gains and beneficiaries' payment difficulties.

### Interest Regimes

| Aspect                          | Simple Interest   | Compound Interest   |
|---------------------------------|---|---|
| <b>Definition</b>               | Interest is calculated only on the initial capital.   | Interest is charged on the principal plus accrued interest.                                       |
| <b>Amount Formula</b>           |   |   |
| <b>Where:</b>                   |   |   |
|                                 | ( M ): Final amount<br>( C ): Initial capital<br>( i ): Interest rate ( n ):<br>Number of periods | ( M ): Final amount<br>( C ): Initial capital<br>( i ): Interest rate ( n ):<br>Number of periods |
| <b>Effect of Capitalization</b> | Interest is not capitalized.  | Interest is capitalized each period.  |
| <b>Growth of Amount</b>         | Linear  | Exponential   |
| <b>Applicability</b>            | Short-term operations with lower risk and predictability.   | Medium/long-term operations; reflects the contemporary financial reality.                         |
| <b>Advantages</b>               | Simplicity and predictability.  | Reflects the actual cumulative effect of interest.  |
| <b>Disadvantages</b>            | May underestimate the actual cost of long-term credit.  | Significantly increases the amount payable over time.   |
| <b>Reference Authors</b>        | Assaf Neto (2014, p. 88)  | Gitman (2015, p. 42); Ross, Westerfield, and Jaffe (2017, p. 30)                                  |
| <b>Relevance in Microcredit</b> | Suitable for short contracts and small amounts.   | Most commonly used in current microfinance practices in Mozambique.                               |

Adapted by the author (2026)

From an **institutional** point of view, the literature shows that frequent compound capitalization contributes to increased profitability by raising the effective rate of return above the announced nominal rate (Gitman, 2015, p. 102). The adoption of short capitalization periods allows for greater predictability of cash flows and strengthens the liquidity of institutions, constituting a relevant strategy in contexts of high operational risk, such as microfinance in Mozambique (Brigham & Ehrhardt, 2016, p. 113). Associated with the principle of the time value of money, interest capitalization increases the economic attractiveness of credit for lending institutions, ensuring the continuity and sustainability of operations (Ross, Westerfield & Jaffe, 2017, p. 119).

However, from **the borrowers'** perspective, frequent capitalization implies a significant increase in the effective cost of credit. Assaf Neto (2014) emphasizes that increasing the frequency of capitalization compromises the ability to settle debt and increases the potential for over-indebtedness (p. 96), especially in contexts of low financial literacy. Banerjee and Duflo (2019) add that compound capitalization can generate cumulative charges that are disproportionate to the real income of beneficiaries, limiting the expected positive effects of microcredit (p. 244). More critically, Bateman (2010) warns that, in certain African contexts, high interest capitalization can transform microcredit into a mechanism of exploitation, dissociated from its social function (p. 150).

Given this tension, several authors argue for the need to strike a **balance between profitability and social sustainability**. Ledgerwood (2013) argues that the effectiveness of microcredit depends on the adoption of transparent capitalization models

that are adjusted to the reality of borrowers (p. 167). Cull, Demirgüç-Kunt, and Mor-duch (2009) point out that the effects of capitalization vary according to the client's profile, favoring borrowers with greater financial capacity and penalizing those with seasonal or unstable incomes (p. 193). Robinson (2001) stresses that the definition of the capitalization regime must be linked to economic development policies, preventing microcredit from contributing to the perpetuation of poverty (p. 103).

In summary, interest capitalization has ambivalent effects on the profitability of microcredit: it strengthens the financial sustainability of institutions, but can compromise accessibility and borrower retention when applied excessively. In the context of Nam-pula, its analysis is essential to understanding the dynamics between institutional viability and financial inclusion, requiring regulatory and management approaches that ensure social justice and economic sustainability.

## Determinants of Profitability in Microcredit Operations

The profitability of microcredit operations results from the interaction of financial, operational, social, and institutional factors, which simultaneously condition the costs, returns, and sustainability of micro-finance institutions. Among the most relevant factors are the interest rate charged, the frequency and capitalization regime, the term of the operations, the level of default, operating costs, product diversification, and interest reinvestment.

The **interest rate** is the main source of income for microfinance institutions (Ledgerwood, 2013, p. 172) and is a determining factor for profitability. However, high

rates, while strengthening institutional sustainability, increase the risk of default and financial exclusion (Gitman, 2015, p. 106). Brigham and Ehrhardt (2016) emphasize that rates should be adjusted to market conditions, reflecting costs and risks, without compromising access for the most vulnerable groups (p. 118).

The **frequency of capitalization** directly influences the effective cost of credit and the profitability of operations. Assaf Neto (2014) and Gitman (2015) point out that more frequent capitalizations increase institutional returns, but also the burden borne by borrowers (pp. 93; 111). Ross, Westerfield, and Jaffe (2017) warn that a lack of transparency in this process exacerbates customer vulnerability, especially in contexts of low financial literacy (p. 37).

The **term of the transactions** conditions the risk and the accumulated margin. Short terms reduce exposure to default but limit gains, while longer terms can amplify the socioeconomic impact, although they increase the risk of default (Ledgerwood, 2013; Robinson, 2001). Thus, the term should be tailored to the type of activity being financed and the borrower's profile.

The **interest rate regime** adopted directly influences the cost of credit and the confidence of beneficiaries. The compound regime, which is predominant in microfinance, maximizes institutional profitability but imposes greater burdens on borrowers (Assaf Neto, 2014; Gitman, 2015). Ross, Westerfield, and Jaffe (2017) argue that clarity in communicating the interest rate regime is essential for contractual fairness and trust in the financial system (p. 42).

The **level of default** represents one of the main risks to profitability, as it compro-

mises the sustainability of institutions and can generate a vicious cycle of rising interest rates (Cull, Demirgüç-Kunt & Morduch, 2009; Ledgerwood, 2013). Robinson (2001) associates default with a lack of technical support and financial education, advocating proximity approaches.

**Operating costs**, which are generally high in microcredit due to the small size of loans and geographical dispersion, reduce profit margins (Armendáriz & Morduch, 2010). Digitization and mobile payments emerge as relevant strategies for improving operational efficiency (Ledgerwood, 2013).

**Diversification of products and revenue sources** contributes to risk reduction and increased profitability (Ledgerwood, 2013; Brigham & Ehrhardt, 2016) and should be accompanied by customer segmentation and adaptation to urban and rural realities (Robinson, 2001). Finally, **reinvesting interest** allows for expansion of the capital base and credit supply, provided that it is balanced with liquidity and solvency needs (Gitman, 2015; Assaf Neto, 2014).

## Relationship between Interest Capitalization and Profitability

The relationship between interest capitalization and profitability is central to the analysis of microcredit, as it determines both institutional financial indicators and the final cost borne by borrowers. Capitalization, especially when compound and frequent, tends to strengthen the net interest margin, return on assets (ROA), return on equity (ROE), and operational sustainability of institutions (Gitman, 2015; Ledgerwood, 2013).

Brigham and Ehrhardt (2016) point out that capitalization directly influences

the financial spread, while Ross, Westerfield, and Jaffe (2017) highlight that greater frequency accelerates the capital return cycle, reducing liquidity risks (pp. 127; 122). However, from the borrowers' point of view, frequent capitalization increases the effective interest rate and the probability of default (Assaf Neto, 2014, p. 95).

Banerjee and Duflo (2019) warn that excessive capitalization can compromise the social function of microcredit, reducing households' ability to generate net income (p. 245). Bateman (2010) deepens this criticism by associating intensive capitalization with the financialization of poverty in African contexts (p. 155). In turn, Cull, Demirgüç-Kunt, and Morduch (2009) emphasize that short-term gains may be offset in the long term if defaults intensify (p. 199).

In summary, the relationship between interest capitalization and profitability is dialectical: it ensures institutional sustainability, but can compromise financial inclusion when applied excessively or in a non-transparent manner. In the context of Nampula, interest capitalization should be understood as a strategic variable, whose balanced management is essential to ensure both the economic viability of institutions and social justice for borrowers.

## RESEARCH METHODOLOGY

The research is based on the interpretive paradigm, which values the perspectives of the participants, adopts the inductive method as a strategy for knowledge construction, and favors a qualitative approach, with descriptive and contextual analyses. According to Lakatos and Marconi (2017), methodology consists of a structured set of

procedures that guide scientific research, allowing it to be systematic and valid.

## Research Method

This research adopts the **inductive method**, as it allows for the understanding of particular phenomena based on empirical observation of the organizational reality of Txi Microcrédito in Nampula. This method is appropriate when analyzing specific institutional practices and interpreting their financial and social effects based on the experiences of the actors involved (Creswell & Poth, 2018; Guba & Lincoln, 2019).

The choice of the inductive method makes it possible to explore the implications of the interest capitalization process based on the perceptions of the employees directly involved in its operation, favoring a contextualized analysis of institutional profitability and the social function of the organization.

## Research Paradigm

The research fits into **the interpretive paradigm**, which assumes that social reality is constructed by subjects based on their experiences and interactions with the institutional context. This paradigm is particularly suitable for studies in the Applied Social Sciences, as it allows for a critical understanding of organizational practices from the perspective of social actors (Chilisa, 2020; Creswell & Poth, 2021).

In the Mozambican context, the interpretive paradigm allows us to capture the cultural and institutional specificities that influence microcredit practices, enabling an in-depth reading of the effects of interest capitalization at Txi Microcrédito.

## Type of Research

### Regarding the Approach

The research is **qualitative** in **nature**, as it focuses on an in-depth understanding of the perceptions, discourses, and institutional practices associated with interest capitalization. This approach is particularly relevant for the study of organizational realities that are poorly documented in the Mozambican context (Mabunda, 2021; Mucavele, 2022).

### Regarding the Objectives

In terms of objectives, the research is **descriptive**, as it aims to characterize the interest capitalization process and analyze its implications for the profitability of Txi Microcrédito's microcredit operations, without establishing rigid causal relationships (Quivy & Van Campenhout, 2019).

### Regarding the Procedures

In terms of procedures, a **case study** is adopted, complemented by **documentary analysis**. The case study allows for an in-depth examination of the institutional reality of Txi Microcrédito, while the document analysis draws on internal regulations, financial reports, and interest rate application rules, ensuring data triangulation and robustness of the analysis (Yin, 2018; Bowen, 2022).

### Regarding Nature

The research is classified as **basic research**, as its purpose is to expand theoretical knowledge about the implications of interest capitalization on the profitability of microcredit operations, without aiming at

immediate practical application. This type of research contributes to conceptual deepening and the development of future investigations in the field of microfinance in Mozambique (Marconi & Lakatos, 2017; Prodanov & Freitas, 2020).

### Data Collection Instruments

Data collection was carried out through **semi-structured interviews** and **direct non-participant observation**, instruments appropriate to the qualitative approach adopted.

### Semi-Structured Interview

Semi-structured interviews were conducted with **ten Txi Microcrédito employees**, selected based on their direct involvement in the credit granting, monitoring, and management processes. This instrument allowed us to gather perceptions, experiences, and critical judgments about the practice of interest capitalization, its operational challenges, and the perceived impacts on the profitability of operations.

Semi-structured interviews provide a balance between structure and flexibility, allowing for in-depth exploration of relevant topics that emerge during the interaction, and are widely used in qualitative research (Kallio et al., 2019; Castillo-Montoya, 2021). To this end, a previously validated **interview guide** was developed to ensure thematic consistency and suitability for the Mozambican institutional context.

### Direct Observation

As a complement to the interviews, **non-participant direct observation** was used at the Txi Microcrédito facilities in

Nampula. This technique allowed us to capture everyday institutional practices related to the explanation of interest rate regimes, the presentation of effective rates, and interactions between employees and customers.

The observations were recorded in a field diary, focusing on institutional communication, the use of interest calculation tools, and borrowers' reactions during the service. Direct observation contributed to methodological triangulation, reinforcing the reliability and validity of the data collected (Creswell & Poth, 2018; DeWalt & DeWalt, 2021).

## Research Population and Sample

The research sample consists of 10 employees of Txi Microcrédito de Nampula, selected by intentional and non-probabilistic sampling, considering their direct experience with credit granting, management, and supervision.

The sample includes different functional levels, namely credit supervisors, analysts, portfolio managers, administrative assistants, and a regional coordinator, ensuring a cross-sectional view of institutional practices. This functional diversity allowed for the collection of contextualized and complementary data on the application of the interest capitalization regime and its effects on institutional profitability.

The selection of participants with operational and strategic knowledge ensured relevant and consistent contributions to the analysis of the phenomenon under study, as recommended in qualitative research of an organizational nature (Nhachungue, 2021; Chilala & Bambo, 2022).

## PRESENTATION, ANALYSIS, AND DISCUSSION OF RESULTS

This chapter presents and discusses the empirical results of the study on the implications of the interest capitalization process on the profitability of Txi Microcrédito's microcredit operations in Nampula from 2022 to 2024. The analysis shows that the institution predominantly adopts a compound interest regime, with monthly capitalization, applied in a standardized manner to microcredit operations, supported by automated internal calculation systems.

The results show that interest capitalization is one of the main mechanisms for strengthening the institution's financial sustainability, positively influencing the operating margin and profitability indicators, namely return on assets (ROA) and return on equity (ROE). The frequency of capitalization, associated with the interest rates charged, emerges as a determining factor for revenue generation and financial flow stability.

However, the analysis also reveals ambivalent effects of this practice. The increase in the effective cost of credit resulting from compound capitalization contributes to the worsening of payment difficulties for borrowers, especially those with unstable incomes and low levels of financial literacy. Thus, there is an interdependent relationship between interest capitalization, institutional profitability, and default risk, highlighting a structural tension between economic efficiency and the social function of microcredit.

The discussion of the results confirms that, although interest capitalization strengthens the profitability and sustainability of

microcredit operations, its intensive application can compromise the objectives of financial inclusion when not accompanied by adequate mechanisms for transparency, adjustment of contractual conditions, and financial education. The chapter concludes that the effectiveness of microcredit in the context of Nampula depends on the balance between institutional profitability and social sustainability, positioning interest capitalization as a strategic variable that requires critical and responsible management.

## Conclusion

This study analyzed the implications of the interest capitalization process on the profitability of Txi Microcrédito's microcredit operations in Nampula (2022–2024), showing that the adoption of a compound interest regime with monthly capitalization is a central mechanism for strengthening institutional financial sustainability, reflecting positively on the operating margin and profitability indicators (ROA and ROE). However, the results reveal that intensified capitalization raises the effective cost of credit, affecting borrowers' ability to pay and increasing the risk of default, which exposes a structural tension between financial efficiency and the social function of microcredit. It is concluded that, although indispensable for the economic viability of microfinance institutions, interest capitalization must be managed prudently, transparently, and adjusted to the socioeconomic reality of clients, in order to ensure a sustainable balance between institutional profitability and financial inclusion in the Mozambican context.

## Suggestions

Based on the results of the study, it is recommended that Txi Microcrédito improve its interest capitalization model, adjusting it to the socioeconomic profile of its clients and strengthening transparency in communicating the effective cost of credit through accessible language, financial simulations, and more systematic post-credit monitoring. It is also suggested that the institution prioritize profitability strategies based on operational efficiency and preventive risk management, reducing dependence on intensified capitalization as the main mechanism for financial sustainability. At the regulatory level, it is recommended that the microfinance sector framework be strengthened, with greater emphasis on borrower protection, the promotion of financial literacy, and the creation of institutional risk mitigation mechanisms. Finally, future research could deepen the analysis through quantitative, comparative studies focused on the borrowers' perspective, in order to broaden the understanding of the effects of interest capitalization on institutional profitability and the economic well-being of microcredit beneficiaries.

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