

# Analysis Of Time Value Of Money (TVM) As A Tool For Investment Decision-Making In Small And Medium Enterprises During An Economic Slowdown

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## ABSTRACT

The economic slowdown occurring in Indonesia in 2025 has significantly impacted the sustainability of Micro, Small, and Medium Enterprises (SMEs). This article focuses on discussing and analyzing the role of the Time Value of Money (TVM) concept as a crucial tool in investment decision-making for MSMEs amid uncertain economic conditions. Using official secondary data from the Central Statistics Agency and the Ministry of Cooperatives and MSMEs, this analysis demonstrates how the application of Time Value of Money enhances the effectiveness of investment evaluation and capital management within MSMEs. The analysis results indicate that using the Time Value of Money concept can enhance the effectiveness of investment decision-making in SMEs, which is crucial for sustaining business operations in the face of uncertain economic conditions in the future.

## INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) have long been an integral part of Indonesia's economy. According to data from the Ministry of Cooperatives and Small and Medium Enterprises, as of 2023, there are over 66 million MSMEs in Indonesia, contributing significantly to the Gross Domestic Product (GDP) at 61.07%, followed by employment absorption of around 97% of the total national labor force (Kemenkop UKM, 2023). From this data, it can be seen that MSMEs play a crucial role, not only in economic growth but also in creating income equality and social resilience. However, as we enter 2025, it is clear that Indonesia's economy has experienced an economic slowdown. This is evident from the official report by the Central Statistics Agency (BPS), which shows that the national economic growth rate for the first quarter of 2025 was recorded at 4.87% year-on-year, a decrease from the previous quarter's 5.02% and the same period last year's 5.11%. The primary causes of this slowdown include reduced government spending, a decline in private investment, and the ongoing impact of global uncertainty, which continues to overshadow both the trade sector and consumer spending. According to a report by Kompas.com, a decline in purchasing power and the absence of electoral momentum have further weakened domestic consumption, which remains one of the main drivers of national economic growth.

This economic slowdown has greatly affected the sustainability of MSMEs, especially those engaged in consumption and services, due to declining demand and cash flow constraints. Many MSME players are finding it difficult to maintain business operations, as well as to make decisions on investment or expansion. In such circumstances, SMEs are not only required to survive but also to make efficient and appropriate business decisions based on sound financial analysis. The concept of the Time Value of Money (TVM) can facilitate the development of more robust investment plans, as TVM is a fundamental principle

of finance that states the present value of money is higher than the same amount in the future due to the potential for income and risks associated with time. This concept is highly suitable and important for evaluating both short-term and long-term investments, as it accounts for the time value of future cash flows and assists business owners in determining the viability of an investment decision.

### The Concept of Time Value of Money (TVM)

Time Value of Money (TVM) is one of the fundamental principles in financial management because the statement of Time Value of Money is that the value of money today is more valuable than the same amount of money in the future, indicating that money in the future may decrease due to the potential income and risks inherent in time. This concept forms the basis for various investment evaluation methods such as Net Present Value (NPV), Internal Rate of Return (IRR), and Payback Period.

According to Cote (2022), TVM is a core principle in finance that means the amount of money is more valuable now than in the future. This is because of the potential for that money to generate income or interest over time. Additionally, TVM is very important in investment decision-making and financial planning.

According to Vyasani (2024) in his research, he states that the Time Value of Money is a fundamental concept in finance that is important for making various financial decisions and conducting financial activities. In his research, he offers a comprehensive analysis of the Time Value of Money, examining its principles and influencing factors, along with its practical applications in investment, financing, and valuation.

There are two simple formulas commonly used in TVM:

#### 1) Future Value (FV)

FV focuses on directly calculating the future value of money based on its current value and interest rate.

$$FV = PV \times (1 + i)^n$$

#### 2) Present Value (PV)

PV focuses on calculating the current value of a sum of money expected to be received in the future.

$$PV = \frac{FV}{[1+i]^n}$$

Explanation of

- FV = Future value
- PV = Present value
- i = Interest rate per period
- n = Number of periods

### 2.2 Investment Decision-Making in SMEs

Investment decision-making is a very important process carried out by business actors, including SMEs, to ensure that the capital they have can be used efficiently and effectively. However, some studies show

that most SMEs still fully apply formal financial analysis in decision-making. The main cause is the lack of financial knowledge to access relevant technology and information.

Based on the results of research conducted by Pahlevi and Ahmadi (2025), it is clear that financial literacy and access to finance are important in supporting SME investment decision-making. This research shows that good financial management can improve SME actors' understanding of accessing external funding sources and managing finances, which ultimately supports business growth and continuity.

### Economic Conditions and Challenges for MSMEs in an Era of Economic Slowdown

In the first quarter of 2025, Indonesia's economy grew by 4.87% (year-on-year) compared to the previous year and the same period. However, on a quarterly basis (q-to-q), Indonesia's economy contracted by 0.98%. The agriculture, forestry, and fisheries sectors recorded the highest growth at 10.52%, while the manufacturing and information and communication sectors grew by 4.55% and 7.72%, respectively.

In Indonesia's SMEs, there are also challenges faced in the slowing economic conditions, as follows:

#### 1) Limited Access to Financing

According to the Minister of Cooperatives and SMEs, access to financing remains the primary issue for many SMEs in Indonesia, despite government assistance such as the debt relief program for overdue debts up to Rp500 million. However, most SMEs still face difficulties, particularly in obtaining new financing from formal financial institutions due to strict requirements and insufficient collateral (Kompas.com, 2025).

#### 2) Dependence on Export Markets

SMEs focused on exports are impacted by global uncertainties, including exchange rate fluctuations and trade barriers such as import tariffs. This affects the competitiveness of SME products in global markets (Detik.com, 2025)

#### 3) Low Level of Digitalization

The use of digital technology by SMEs remains limited due to a lack of skills, capital, and education. This indicates that SMEs have limited capacity to expand their markets and improve business efficiency (Kompas.com, 2025)

#### 4) Limited Human Resource Capacity

MSME practitioners or human resources still face challenges in marketing, managerial, and technological skills, which limits their ability to compete in developing their businesses (Kompas UMKM, 2024).

With the above background explanation, it is hoped that this article can analyze how the concept of Time Value of Money can be used as a tool in making investment decisions by MSMEs in conditions of economic slowdown. This study takes the topic of financial literacy for MSME players and how important the application of financial principles in modern times, such as Time Value of Money, is for business resilience, specifically in facing future economic conditions.

## RESEARCH METHOD

This article uses secondary data analysis methods with a qualitative content analysis approach to examine the application of Time Value of Money (TVM) as an investment decision-making tool for MSMEs in the era of economic slowdown in 2025. The data analyzed comes from several reliable sources, such as the

latest economic news, official government reports, and is supported by scientific articles and documentation related to MSMEs and investment concepts.

Qualitative content analysis was conducted by reading the entire text and categorizing or grouping the data into main themes such as the application of TVM, challenges faced by SMEs, and the impact of the economic slowdown. This information was then interpreted to draw conclusions that are sufficiently relevant to the article's explanations. To ensure the validity of the data, this article employs source triangulation by comparing information from various recent sources.

## **RESULTS AND DISCUSSION**

### **The Application of Time Value of Money (TVM) in Investment Decision-Making for SMEs**

Secondary data analysis from various news sources and reports indicates that some SME operators have already adopted the concept of Time Value of Money (TVM) in making investment decisions. TVM simplifies the calculation of the present value of money compared to its future value, thereby making investment decisions more logical and systematic. Therefore, the concept of Time Value of Money is particularly important in an uncertain or unstable economic environment due to economic slowdown.

However, the application of Time Value of Money is still not widely adopted by many SMEs. For example, smaller-scale SMEs or micro-SMEs still rely on experience and knowledge in making investment decisions. This is due to low financial literacy and limited access to training or technology supporting financial analysis.

#### **Challenges for SMEs in implementing TVM**

The implementation of the Time Value of Money (TVM) concept in investment decision-making for SMEs faces various challenges. In addition to common factors such as low financial literacy and limited access to training, there are several new challenges that can be considered highly influential, including:

##### **1) Limited time and operational focus**

SME operators who are still busy managing their own businesses from production to marketing find it difficult to allocate time to learn or apply financial concepts such as Time Value of Money.

##### **2) Local market uncertainty**

In general, MSMEs in Indonesia still often experience market conditions that are constantly changing or unpredictable, for example, fluctuations in the price of raw materials in demand. This makes it difficult for MSME players to predict the results of their investments because they are still hesitant to use long-term financial analysis such as Time Value Of Money.

##### **3) A business culture that relies more on feelings/instincts or trust.**

There are still some SME operators who rely on their instincts or thoughts based on their experience in making decisions rather than applying financial analysis methods, which they consider too difficult for them.

##### **4) Lack of direct support from the business environment.**

This refers to the lack of training and education from the government or related institutions, which continues to hinder SMEs in understanding and applying the concept of Time Value of Money.

## **The Impact of Economic Slowdown on Investment Decision-Making in SMEs**

The economic slowdown over the past few years, both nationally and globally, has significantly influenced the decision-making process of SMEs in the micro, small, and medium enterprise (SME) sector. The actual conditions often observed include rising prices, leading to reduced consumer interest in purchasing power, and increased production costs, which have caused many businesses to experience a decline in revenue, particularly cash flow.

In this situation, many SME operators have chosen to be more cautious in making investment decisions. They prefer to cancel business expansion plans, avoid purchasing fixed assets, and even reduce speculative operational activities. The Time Value of Money (TVM) is the most important tool to help SMEs evaluate whether the investments they plan to undertake are appropriate and viable in the long term.

However, not all SMEs have the ability to select the appropriate capacity or effectively apply the TVM concept, nor can they fully consider its implications. Most small businesses are unable to conduct more in-depth financial analysis, resulting in investment decisions often being based on short-term considerations, personal judgment, or situational pressure.

On the other hand, SMEs that adopt financial concepts like TVM tend to be more adaptive in managing their financial strategies. They can identify the potential differences in investment decisions, considering the risk of currency devaluation due to continuous price increases and economic uncertainty. As a result, the decisions they make are often more rational and take into account the sustainability of their businesses over the long term.

Therefore, the impact of economic slowdown has driven SMEs to adopt more structured financial analysis methods, though their implementation remains limited to SMEs with adequate literacy and access.

## **CONCLUSION**

The application of Time Value of Money (TVM) in investment decision-making for MSMEs, especially in Indonesia, is still limited and relatively rare, particularly among small MSMEs (micro MSMEs). The economic slowdown has made MSMEs more cautious in investing. A good understanding and use of TVM will certainly help them make more accurate decisions and reduce the risk of loss.

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