

## Productivity for Growth of Small and Medium Enterprises: Case of Indonesian Capital Market

Ossi Ferli<sup>1</sup>, Enny Hatyanti<sup>2</sup>, Sara Immanuella<sup>3</sup>, Dessy Ataulina<sup>4</sup>, Muh. Nurdin Nur Abdi

Kasman<sup>5</sup>, Vasanti Etenia Kusuma<sup>6</sup>

<sup>123456</sup>Indonesia Banking School

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### Article Info

#### Article history:

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#### Keywords:

SME growth,  
productivity,  
profitability,  
debt,  
Indonesia Stock Exchange,  
panel data.

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### ABSTRACT

This study aims to analyze the effect of profitability, productivity, debt, age, and company size on the growth of Small and Medium Enterprises (SMEs) listed on the Indonesia Stock Exchange (IDX) on the Acceleration Board and Development Board during the period 2021–2023. Using the panel data method and the Common Effect Model (CEM) approach, this study found that only the productivity variable has a positive and significant effect on company growth, both for SMEs listed on the Acceleration and Development Boards. Meanwhile, the profitability, debt, age, and company size variables did not show a significant effect on growth. These results emphasize the importance of operational efficiency and asset optimization compared to dependence on profits or external financing in driving SME growth. These findings are expected to be strategic input for business actors, investors, and regulators in formulating policies that support strengthening the SME sector in the capital market.

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#### Corresponding Author:

Name: Ossi Ferli

Institution Address: Kenang Raya 35, South Jakarta, Indonesia

e-mail: [ossi.ferli@ibs.ac.id](mailto:ossi.ferli@ibs.ac.id)

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### 1. INTRODUCTION

Small and Medium Enterprises (SMEs) have a very strategic role in the national economy, including in Indonesia. Their contribution to Gross Domestic Product (GDP) and their ability to absorb labor make this sector an important pillar in creating economic stability. In order to encourage the growth of SMEs, the government through the Financial Services Authority (OJK) and the Indonesia Stock Exchange (IDX) has opened access to financing through the capital market, one of which is by providing a mechanism for listing shares on the stock exchange. Since 2019, the IDX has started listing small and medium-scale public companies through the acceleration board. Referring to OJK Regulation Number 53/POJK.04/2017, the acceleration board is intended for issuers that are included in the small and medium-scale asset category (OJK,

2025). However, the presence of SMEs in the capital market does not necessarily eliminate the challenges they face, especially in terms of maintaining a balance between business growth, profitability, productivity, and financial structure. In financial management studies, the relationship between company growth, profitability, and capital structure is a frequently discussed topic. [1] argues that growth is a more relevant performance indicator for SMEs compared to conventional financial indicators. On the other hand, [2] emphasize that limitations in accessing external financing are a major obstacle to SME growth, considering that most of them still rely heavily on short-term debt for operational needs.

Studies in European Union countries, including Portugal, show that SMEs are highly dependent on banking-based financial systems [3]. In this context, profitability and

productivity play a crucial role as sources of internal financing that can drive business growth. [4] and [5] state that companies with healthy financial conditions are generally able to record positive profits, which will ultimately strengthen business continuity and expansion. This finding is also supported by [6], who found a positive correlation between growth and profitability in various industrial sectors.

In addition, other factors such as labor productivity, company scale, and level of technology adoption also contribute to SME growth [7]. [2] Emphasized that productivity is the main determinant in driving growth, in line with the Pecking Order Theory (POT) view which emphasizes the importance of internal financing in supporting business expansion [3]. However, most previous studies still focus on the context of developed countries such as Portugal, so the results cannot necessarily be generalized to SMEs in developing countries. The Indonesia Stock Exchange (IDX) provides several listing boards, including the Development Board and the Acceleration Board. The Development Board is intended for companies that have developed but have not yet met the requirements to enter the main board, while the Acceleration Board is specifically intended for Micro, Small, and Medium Enterprises (MSMEs) and startups that have growth prospects but are limited in business scale and profitability (IDX, 2020). The Acceleration Board provides convenience in the form of lighter requirements, such as minimum assets of IDR 5 billion and is not required to make a profit. In contrast, the Development Board requires a larger asset and equity size and relatively stable financial performance (OJK, 2019). This comparison is important because it reflects an alternative financing path for MSMEs through the capital market. The Acceleration Board is a strategic initial step for MSMEs to go public, while the Development Board can be a medium-term goal when MSMEs have experienced significant growth. Therefore, this study aims to fill the gap in the literature by analyzing the relationship between growth, profitability, and leverage in MSMEs listed on the Indonesia Stock

Exchange. This study will specifically compare the growth performance of MSMEs listed on the acceleration board and the development board in order to gain a more comprehensive understanding of the role of financial factors in supporting MSME business expansion in Indonesia. It is hoped that the results of this study can provide real contributions to business actors, stakeholders, and policy makers in designing more effective and contextual financial strategies to strengthen MSME growth in Indonesia.

## 2. LITERATURE REVIEW

### Theoretical background

#### *Signaling Theory*

According to [8], Signaling Theory is used to understand the phenomenon of information asymmetry that occurs between two parties due to an imbalance of knowledge in various organizational and business contexts [9]. The information conveyed represents management's commitment to realizing the interests of shareholders as company owners, so that it is expected to increase the trust of investors and other stakeholders (Amaliyah & Herwiyanti, 2020). However, as stated by Spence (1973), signals are basically uncertain and cannot be observed directly, so their interpretation still requires careful consideration. Agency Theory Jensen and Meckling (1976) stated that the core of agency theory lies in the agency relationship between the principal and the agent. This relationship is based on a formal agreement stated in the form of a contract (Kurniawansyah et al., 2018). Within the framework of this theory, it is assumed that each individual acts to fulfill their personal interests. Therefore, the difference in interests between the principal and the agent encourages each party to maximize their own profits (Lesmono & Siregar, 2021). Thus, agency theory explains the dynamics of the relationship between capital owners as principals and company management as agents, including potential conflicts that may arise due to differences in goals between the two (Soimah et al., 2021).

#### *Growth and Profitability*

Sales are one of the fundamental elements in measuring the level of profitability of a company and function as the main indicator of business operational activities [15]. For SMEs, increasing sales volume is a strategic factor that supports business sustainability and increasing competitiveness in the market. Sales growth or increasing market share reflects management's perception of business opportunities that should be utilized to expand market coverage and improve financial performance [16].

A number of studies have shown a significant relationship between sales growth and company profitability. A study by [17] showed that sales growth has a positive effect on profitability, indicating that increased sales contribute to increasing company profits.

Another study by [5] also supports these findings, showing a positive correlation between business growth and profitability levels. However, more complex findings were presented by [3], who found that at low levels of profitability, growth and profitability actually showed a negative relationship. This means that companies with low profitability tend to experience slow growth. In this case, SME owners begin to allocate internal resources more optimally to encourage business growth [3].

Based on the theoretical and empirical reviews, the hypothesis proposed in this study is:

**H1:** There is a positive influence between profitability and growth.

### ***Growth and Productivity***

Small and Medium Enterprises (SMEs) have a significant contribution to the Indonesian economy, one of which is through their ability to absorb more than 97 percent of the total national workforce (Ministry of Finance of the Republic of Indonesia, 2025). This shows that SMEs not only play a central role in job creation, but also in encouraging innovation and increasing competitiveness in various sectors.

In the context of measuring productivity, both subjective approaches through perception and objective approaches

can be used to assess the level of efficiency and business performance [10]. Increased productivity contributes to improving work systems, improving production techniques, and improving workforce skills. Companies that have high levels of productivity generally show more profitable performance and are able to generate large amounts of retained earnings, which can then be used as a source of funding to support business growth [3]. In line with this, [11] emphasized that a high level of productivity is positively correlated with company profitability. Furthermore, [12] stated that increasing productivity not only strengthens the company's financial position but also has implications for increasing the need for labor, which contributes to more inclusive and sustainable economic growth. According to [13], financial management and productivity are some of the factors that can cause financial distress in MSMEs. This finding refers to a previous study by [14], which identified productivity and profitability as factors that contribute to financial distress. Based on the empirical and theoretical basis, the hypothesis proposed in this study is:

**H2:** There is a positive influence between productivity and growth.

### ***Growth with debt/leverage***

One of the factors that significantly affects the development of Small and Medium Enterprises (SMEs) is access to capital [18]. Many SMEs face internal constraints in running their businesses, including limited capital and limited access to financing [19]. Therefore, a comprehensive understanding of how the use of debt affects the growth of SMEs, and vice versa, is very important in supporting strategic decision-making related to capital structure and the direction of business expansion.

In the context of financial structure, financial leverage—which is generally measured by the debt-to-equity ratio—has a crucial role in influencing the composition of capital and the overall financial performance of the company [20]. [21] Found that the existence of public debt that exceeds a certain threshold can have a negative impact on

economic growth. Conversely, when the debt level is within reasonable limits, debt actually contributes positively to growth. The relationship between debt and growth is non-linear, and the level of influence is highly dependent on the economic conditions and fiscal capacity of each country.

Another study by Badi and [22] revealed that access to debt-based financing has a significant positive impact on the profitability of SMEs, as measured by the Return on Assets (ROA), Gross Profit Margin (GPM), and Return on Equity (ROE) indicators. The results of the study concluded that properly managed debt financing can help SMEs overcome financial constraints and improve overall business performance. Thus, adequate access to debt not only strengthens the financial position of SMEs but also increases their contribution to economic growth and job creation.

Based on this description, the hypothesis proposed in this study is:

**H3:** There is a positive influence between debt and growth.

### ***Growth with Age***

Company age refers to the operational period of a business entity since its establishment until now. This variable is seen as an important indicator in assessing business sustainability against market changes, and taking advantage of available economic opportunities [23]. Generally, companies that have been operating for a long

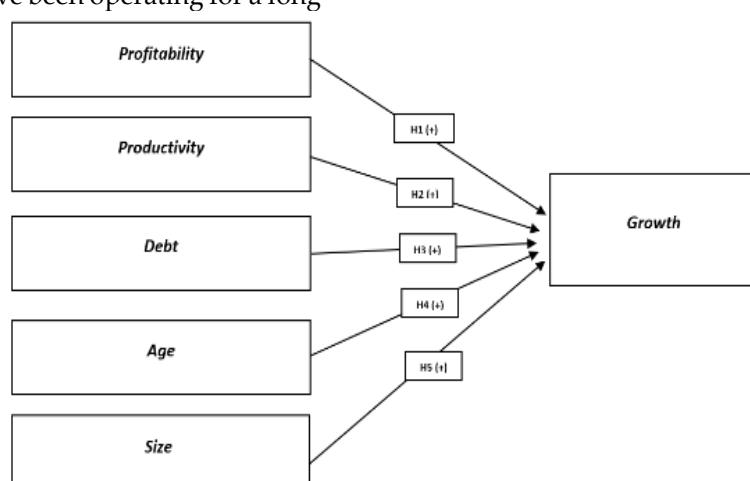
time are considered to have higher value. The availability of greater assets increases the potential for investment returns which strengthens the market's perception of the company's viability. An increase in stock prices as a market response to operational stability also indicates investor confidence in the company's sustainability. Research by [24] shows that company age has a positive effect on increasing company value, indicating that companies that have been operating for a long time have greater appeal to investors.

**H4:** There is a positive influence between company age and growth.

### ***Growth with Size***

Company size can be defined as the size of a company's operational scale, which is generally measured by total assets, sales value, or equity. The larger the size of a company, the greater its relationship to strategic funding decisions aimed at optimizing the company's value [23]. Based on the perspective of signaling theory, companies that have good fundamental quality will provide a positive signal to the market to show credibility and long-term performance. Empirical findings from research by [24] and [23] strengthen this argument, by showing that company size has a positive and significant relationship to increasing company value.

**H5:** There is a positive influence between company size and growth.



**Figure 1.1 Framework of thought**  
source: Data processed by the author (2025)



Based on the framework in Figure 1.1, this study was conducted to determine the effect of profitability, productivity, debt, company age, and company size on the dependent variable, namely the growth of MSMEs listed on the Indonesia Stock Exchange on the Acceleration board and Development board. This study aims to analyze the relationship between internal company factors and growth performance, using the panel data regression method for the period 2021-2023. Previous research conducted by [25] showed The conclusion of this study is that profitability affects company value. Profitability has a significant positive effect on company value. Meanwhile, growth opportunity and company age have no effect on company value. Other research conducted by [26], shows that company size does not have a significant negative effect on company value. The size of a company cannot be used as a reference for investors to invest in the company. Then in research [27] shows that the factors that have the greatest influence on MSME growth are capital, quality of human resources and increased competitiveness. This study will replicate and develop previous studies by changing the research object to SMEs listed on the Indonesian capital market, so that it is expected to provide relevant empirical contributions to the development of literature in the field of SME financial management.

### 3. METHODS

#### Data Collection and Samples

This study utilizes secondary data sourced from the annual financial reports of small and medium-sized companies (SMEs) listed on the Acceleration Board and Development Board on the Indonesia Stock Exchange (IDX). Data were collected through official IDX publications, company annual reports, and references from relevant research and academic journals.

Referring to Law of the Republic of Indonesia Number 20 of 2008 concerning Micro, Small, and Medium Enterprises, the classification of SMEs is based on the amount of assets and annual income, namely: (1)

micro businesses have a maximum net worth of IDR 50 million or an annual turnover of up to IDR 300 million; (2) small businesses have assets of more than IDR 50 million to IDR 500 million or a turnover of between IDR 300 million and IDR 2.5 billion; and (3) medium businesses have assets above IDR 500 million to a maximum of IDR 10 billion or a turnover of between IDR 2.5 billion and IDR 50 billion [28].

The Acceleration Board is a special listing segment on the IDX intended for small and medium-sized companies to obtain funding from the capital market with more flexible provisions than other boards (IDX, 2018). This board is intended as a medium for accelerating business growth before the company moves up to a higher listing board. On the other hand, the Development Board is intended for companies with high growth potential that do not yet meet the criteria to be listed on the Main Board, but have a larger business scale compared to companies on the Acceleration Board (IDX, 2018).

This study uses a purposive sampling method with the criteria for the completeness of the company's annual financial report for the period 2021-2023. The selection of this period is based on two main considerations: first, although the IDX Acceleration and Development Boards have been launched since 2019, the number of companies listed at the beginning of the launch was still limited; second, 2021 marks the beginning of economic recovery after the COVID-19 pandemic, so data for this period is considered more representative. Of the total 42 companies listed on the Acceleration Board, only 21 companies met the criteria for completeness of financial reports for three consecutive years and were used as research samples, and of the 49 companies on the development board, only 38 companies met the criteria.

#### Estimation Method

This study adopts a panel data estimation method to analyze the influence of independent variables consisting of profitability, productivity, and debt on the dependent variable, namely company

growth. The panel data model was chosen because it is able to integrate time (time series) and individual (cross section) dimensions, allowing researchers to observe the dynamics of the relationship between variables in a more representative period. This approach can also increase estimation efficiency, control unobserved heterogeneity, and produce more accurate and comprehensive findings

regarding the determinants of SME growth listed on the Indonesian capital market.

The following is a model that will be estimated using the panel data model approach:

$$GROW_i,t = \alpha + 1PROF_i,t-1 + 2PROD_i,t-1 + 3EBT_i,t-1 + 4SIZE_i,t-1 + 5AGE_i,t-1 + i,t$$

**Tabel 3.2.1 panel data model approach**  
source: Data processed by the author (2025)

		Measurement
<b>Dependent variable</b> Growth (GROW)		$\frac{ATO_t - ATO_{t-1}}{ATO_{t-1}}$
<b>Independent Variabel</b> Debt (DEBT)		$\frac{Total\ Liability}{Total\ Equity}$ $\frac{Total\ Leverage}{Total\ Asset}$
<b>Productivity (PROD)</b>		$\frac{Total\ Sales}{Total\ Asset}$
<b>Profitability (PROF)</b>		$\frac{EBIT}{Total\ Asset}$
<b>Size (SIZE)</b>		In total asset
<b>Age (AGE)</b>		In age

#### 4. RESULTS AND DISCUSSION

##### *Descriptive statistics*

Table 4.1 shows the results of descriptive statistics of the independent and dependent variables considered in this study.

**Table 4.1 Descriptive Statistics Results**  
source: Data processed by the author (2025)

Variable	obs	Average	Standard Dev.	Minimum	Maximum
<b>GROWTH</b>	63	20.82212	158.3241	-0.9756	1257.376

<b>PROF</b>	63	-0.00029	0.191265	-0.80666	0.66599
<b>PROD</b>	63	0.727424	0.734031	0.0046	4.0506
<b>DEBT</b>	63	0.373088	0.313969	0.01681	1.3497
<b>SIZE</b>	63	25.13405	0.894486	22.73138	26.64926
<b>AGE</b>	63	2.299389	0.737462	0.69315	3.73767

in table 4.1. it is shown that the average growth of accelerated SMEs is around 20,822, with an average age of 2,299 and an average asset of 25,13405. Meanwhile, the average profitability shows -0.00029, this does not indicate profitability. Productivity from sales is 72.74%. The average debt in the sample is 37.3%. Based on the descriptive results above,

the volatility of several variables is relatively low, indicated by the standard deviation value which is below the average. Meanwhile, the growth, profitability, and productivity variables show a higher level of volatility, as reflected by the standard deviation which exceeds the average value.

**Table 4.2 Correlation Matrix**  
source: Data processed by the author (2025)

	PROF	PROD	DEBT	SIZE	AGE	GROWTH
<b>PROF</b>	1.0000					
<b>PROD</b>	0.211870	1.0000				
<b>DEBT</b>	0.258617	0.24140	1.0000			
<b>SIZE</b>	0.162960	-0.04548	0.00557	1.0000		
<b>AGE</b>	0.200521	-0.01969	0.34478	0.17351	1.0000	
<b>GROWTH</b>	0.026361	0.57841	-0.00037	-0.00782	-0.09091	1.0000

More completely, table 4.2 shows the correlation matrix, namely the correlation between the research variables.

Profitability, and productivity show a positive correlation to the growth variable with a statistical significance of 5%. However, debt, size and age show a negative correlation with growth. [29] Concluded that the problem

of collinearity between independent variables is not very relevant when the correlation coefficient is not above 50%. Based on finding a coefficient of 50%, we conclude that the issue of correlation between the variables does not seem to be very relevant.

#### ***Data Panel dan Model Estimations***

Based on the results of the model selection test including the Chow test, Hausman test, and Lagrange Multiplier (LM) test, it can be concluded that the best model to use in this study is the Common Effect Model (CEM).

#### *Hypothesis testing*

#### **Relationships between SME growth and profitability, productivity and debt in acceleration companies**

In the Acceleration approach, the results show that the Productivity (Prod) variable consistently has a positive and significant effect on company growth in all three categories (Cem, Fem, and Rem), with a significance value of 0.000. The highest coefficient is in the Fem group (194.2521), indicating that increasing productivity in companies with the Fem strategy has the greatest impact on growth. This supports the research of Ferli et al. (2023a) that increasing productivity can reduce the financial distress of small companies in the Indonesian capital market. Meanwhile, other variables such as Profitability (Prof), Debt, Size, and Age do not show a statistically significant effect (p-value > 0.05) in the three models. The Adjusted R-squared value for this model ranges from

0.3178 to 0.3617, which means that the model is able to explain the variation in company growth by 31%–36%.

#### **Relationships between SME growth and profitability, productivity and debt in acceleration and development companies**

In the Acceleration and Development approach based on Tabel 4.3 Model Formation, Productivity (Prod) also shows a consistent, positive, and significant influence on growth in all categories (Cem, Fem, and Rem), with a p-value of 0.000. This strengthens previous findings that productivity is the main determinant of company growth in both strategy approaches.

The Profitability variable (Prof), although negative in coefficient, does not show a significant influence on growth. Likewise with Debt, Size, and Age, all of which show p-values above 0.05.

The Fem model in the Acceleration and Development approach has the highest Adjusted R-squared value of 0.2667, indicating that this model is able to explain the variation in company growth by 26.67%. The F-statistic probability value for all models is below 0.05, indicating that the regression model is simultaneously significant.

Table 4.3 Model Formation  
source: Data processed by the author (2025)

		Acceleration			Acceleration and Development		
		growth			growth		
		Cem	Fem	Rem	Cem	Fem	Rem
<b>c</b>		-583.6848	-3129.713	-606.1507	-10.07033	949.6116	16.86913
		0.6797	0.4777	0.7083	0.9091	0.1119	0.8522
<b>Prof</b>		-62.12536	-144.2326	-64.80903	-25.74349	159.5039	29.52036
		0.514	0.5219	0.5124	0.6035	0.0774	0.5485
<b>Prod</b>		134.8176	194.2521	137.6598	53.42666	146.4898	57.69996
		<b>0.000</b>	<b>0.000</b>	<b>0.0000</b>	0.000	0.000	0.000
<b>Debt</b>		-61.72339	-48.40297	-61.53749	-0.184369	0.495995	0.269271

	0.305	0.6018	0.3217	0.9787	0.9756	0.9692
<b>size</b>	388.0563	2348.675	402.607	0.533733	48.80811	0.633632
	0.7434	0.4738	0.7288	0.8763	0.0572	0.8572
<b>age</b>	-6.012467	-113.4473	-6.030922	-9.785768	131.3425	9.280976
	0.8135	0.4863	0.8197	0.3394	0.1546	0.3755
<b>adj r squared</b>	0.361668	0.317893	0.3618	<b>0.128606</b>	<b>0.266667</b>	<b>0.133467</b>
<b>prob(F-statistic)</b>	<b>0.000081</b>	<b>0.016531</b>	<b>0.00008</b>	<b>0.000046</b>	<b>0.000818</b>	<b>0.000031</b>

## 5. CONCLUSION

Based on the research results, it can be concluded that productivity is the only factor that consistently has a positive and significant effect on the growth of SMEs listed on the Indonesia Stock Exchange, especially on the Acceleration and Development board. Meanwhile, profitability, debt, size, and age of the company do not show a significant effect on business growth. This finding confirms that operational efficiency and asset optimization are more crucial than dependence on profits or external financing.

The implications of this finding indicate that SMEs need to prioritize

productivity improvement strategies through digitalization, strengthening operational management, and developing the quality of human resources. On the other hand, regulators such as the IDX are expected to play an active role by providing incentives for innovative issuers, opening access to business training, and simplifying regulations to be more adaptive to the characteristics of SMEs. For investors, these results provide a signal that analysis of productivity indicators, such as business turnover, is more relevant in projecting long-term SME growth than just looking at profitability or capital structure alone.

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