

## Do liquidity, solvency, and profitability affect technology firm growth? Evidence from Indonesia

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### ABSTRAK

Penelitian ini bertujuan menganalisis pengaruh likuiditas, solvabilitas, dan profitabilitas terhadap pertumbuhan perusahaan teknologi yang terdaftar di Bursa Efek Indonesia selama periode 2020–2024. Penelitian menggunakan pendekatan kuantitatif dengan data panel yang diperoleh dari laporan keuangan tahunan 47 perusahaan teknologi sehingga menghasilkan 235 observasi melalui teknik *purposive sampling*. Likuiditas diproksikan menggunakan *Current Ratio* (CR), solvabilitas menggunakan *Debt to Equity Ratio* (DER), dan profitabilitas menggunakan *Return on Assets* (ROA), sedangkan pertumbuhan perusahaan diukur menggunakan *asset growth*. Analisis data dilakukan menggunakan regresi data panel dengan *Fixed Effect Model* yang dipilih berdasarkan uji Chow dan uji Hausman. Hasil penelitian menunjukkan bahwa secara parsial likuiditas, solvabilitas, dan profitabilitas tidak berpengaruh signifikan terhadap pertumbuhan perusahaan teknologi. Namun, secara simultan ketiga variabel berpengaruh signifikan terhadap pertumbuhan perusahaan, yang menunjukkan bahwa kondisi keuangan secara keseluruhan tetap berperan penting dalam mendukung ekspansi perusahaan. Nilai koefisien determinasi menunjukkan bahwa model mampu menjelaskan sebagian besar variasi pertumbuhan perusahaan. Temuan ini mengindikasikan bahwa pertumbuhan perusahaan teknologi lebih dipengaruhi oleh karakteristik spesifik perusahaan, strategi inovasi, dan model bisnis digital dibandingkan rasio keuangan tradisional secara individual.

**Kata Kunci:** likuiditas; solvabilitas; profitabilitas; pertumbuhan Perusahaan; perusahaan teknologi

### ABSTRACT

*This study aims to analyze the influence of liquidity, solvency, and profitability on the growth of technology companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The study used a quantitative approach with panel data obtained from the annual financial reports of 47 technology companies, resulting in 235 observations through a purposive sampling technique. Liquidity was proxied using the Current Ratio (CR), solvency using the Debt to Equity Ratio (DER), and profitability using Return on Assets (ROA), while company growth was measured using asset growth. Data analysis was conducted using panel data regression with a Fixed Effect Model selected based on the Chow and Hausman tests. The results showed that partially, liquidity, solvency, and profitability did not significantly influence the growth of technology companies. However, simultaneously, all three variables significantly influenced company growth, indicating that overall financial condition remains important in supporting company expansion. The coefficient of determination value indicates that the model is able to explain most of the variation in company growth. This finding indicates that technology company growth is more influenced by company-specific characteristics, innovation strategies, and digital business models than individual traditional financial ratios.*

**Keyword:** liquidity; solvency; profitability; company growth; technology company

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## 1. INTRODUCTION

The rapid expansion of the digital economy has accelerated the growth of technology-based companies across emerging and developed markets, including Indonesia. The increasing adoption of digital platforms, *cloud computing*, *fintech* services, and *e-commerce* ecosystems has positioned technology firms as one of the fastest-growing sectors in capital markets. In the Indonesian context, technology companies listed on the Indonesia Stock Exchange have attracted significant investor attention due to their high growth potential, scalability, and innovation-driven business models. However, unlike traditional industries, technology firms typically exhibit volatile earnings, high investment intensity, and substantial reliance on intangible assets, making financial performance assessment more complex and less predictable. These characteristics require a more comprehensive analysis of financial fundamentals to understand how internal financial conditions influence corporate growth in technology-driven environments (Demir et al., 2017; Brown et al., 2012; Hall & Lerner, 2010; Carpenter & Petersen, 2002; Audretsch & Belitski, 2020).

Firm growth represents a critical indicator for evaluating corporate sustainability, competitive positioning, and long-term value creation. Growth is commonly measured through increases in assets, sales, or earnings, with *asset growth* being particularly relevant for technology firms due to their continuous investment in digital infrastructure, research and development, and platform expansion. In technology-based companies, *asset growth* reflects not only physical investment but also strategic scaling, ecosystem development, and innovation capacity. Therefore, understanding the financial determinants of firm growth becomes essential for explaining how technology companies expand under conditions of uncertainty and rapid technological change. Prior studies emphasize that internal financial strength plays a crucial role in enabling firms to finance innovation, manage operational risk, and sustain long-term expansion, especially in high-growth sectors such as technology (Penrose, 1959; Higgins, 1977; Coad, 2009; Delmar et al., 2003; Capasso et al., 2015).

Liquidity reflects a firm's ability to meet short-term obligations and maintain operational flexibility. Firms with strong liquidity positions are generally better able to support working capital requirements and finance expansion opportunities. However, in technology companies, high liquidity does not necessarily translate into *asset expansion* because funds are often allocated to research and development, product innovation, and market acquisition strategies. As a result, the relationship between liquidity and firm growth may vary depending on strategic priorities and business models. Some studies suggest that liquidity enhances growth by reducing financial constraints, while others argue that excessive liquidity may indicate inefficient capital allocation and lower investment intensity, particularly in innovation-driven industries (Carpenter & Petersen, 2002; Brown et al., 2012; McKelvie & Wiklund, 2010; Demir et al., 2017; Wu & Yeung, 2012).

Solvency reflects the capital structure of a firm and its reliance on debt financing. Higher leverage may provide access to external funding that supports investment and expansion, but it also increases financial risk. In technology firms, debt financing is not always directed toward tangible *asset accumulation* but often toward platform development, technological infrastructure, and strategic acquisitions. Consequently, the effect of solvency on firm growth becomes ambiguous. While some studies argue that leverage supports growth by alleviating financial constraints, others find that high debt levels may hinder growth due to risk exposure and limited financial flexibility, particularly in high-uncertainty industries (Hall & Lerner, 2010; Brown et al., 2012; Coad et al., 2016; Capasso et al., 2015; Audretsch & Belitski, 2020).

Profitability represents a firm's ability to generate earnings from its assets and is often considered an internal funding source for expansion. Firms with higher profitability typically have greater retained earnings, which can be used to finance growth without relying on external funding. However, technology firms frequently prioritize market expansion, user acquisition, and innovation over short-term profitability, especially during early growth stages. As a result, profitability may not directly influence *asset growth* in technology companies. Empirical evidence indicates that the relationship between profitability and firm growth is mixed, with some studies showing positive effects while others report insignificant or even negative relationships, depending on industry characteristics and firm lifecycle stages (Delmar et al., 2003; Coad, 2009; Daunfeldt & Halvarsson, 2015; Demir et al., 2017; Audretsch & Belitski, 2020).

Previous empirical studies have reported inconsistent findings regarding the effects of liquidity, solvency, and profitability on firm growth. Some studies document that financial ratios positively influence corporate expansion, while others find insignificant relationships due to heterogeneity across industries, firm size differences, and innovation intensity. These inconsistent findings highlight a research gap, particularly within the technology sector, which exhibits unique characteristics such as rapid scaling, intangible asset dominance, and innovation-driven competition. Therefore, further investigation is required to examine how financial performance indicators influence the growth of technology companies in emerging capital markets such as Indonesia. Based on these considerations, this study aims to analyze the effects of liquidity, solvency, and profitability on the growth of technology companies listed on the Indonesia Stock Exchange during the period 2020–2024. This research contributes to the literature by providing empirical evidence on the financial

determinants of growth in technology firms and offering insights for investors, managers, and policymakers regarding financial strategies in digital-based industries.

## 2. LITERATURE REVIEW

### A. *Pecking Order Theory*

*Pecking Order Theory* explains that firms follow a hierarchical financing preference, beginning with internal funding, followed by debt, and finally issuing new equity. This theory emphasizes that firms with higher liquidity and profitability tend to rely on retained earnings as the primary source of financing because internal funds involve lower asymmetric information costs compared to external financing. In the context of technology companies, internal financing becomes particularly important due to high uncertainty, innovation-based investments, and the dominance of intangible assets that are often difficult to use as collateral for debt financing. Therefore, technology firms with strong liquidity and profitability are expected to have greater financial flexibility to support *asset growth* and business expansion. Empirical studies suggest that firms with higher internal cash availability tend to grow faster because they are less dependent on external financing and can respond more quickly to investment opportunities, particularly in innovation-intensive industries such as digital technology (Myers, 1984; Fazzari et al., 1988; Carpenter & Petersen, 2002; Denis & Sibilkov, 2010; Almeida et al., 2004).

### B. *Trade-Off Theory*

*Trade-Off Theory* explains that firms determine their optimal capital structure by balancing the benefits of debt usage and the costs of financial distress. Debt financing provides advantages such as *tax shields* and additional funding sources for investment; however, excessive leverage increases the risk of bankruptcy. In technology companies, capital structure decisions become more complex due to substantial funding requirements for expansion, research, and technological development. Firms with optimal solvency levels can utilize debt to increase investment capacity and accelerate firm growth. Conversely, excessive leverage may hinder growth because of increased financial risk and reduced financial flexibility in the future. Previous studies indicate that the relationship between leverage and firm growth is often non-linear, where moderate debt levels may enhance growth, while excessive leverage may reduce performance and hinder expansion, particularly in high-volatility industries such as technology firms (Kraus & Litzenberger, 1973; Rajan & Zingales, 1995; Titman & Wessels, 1988; Hennessy & Whited, 2007; Lemmon et al., 2008).

### C. *Signaling Theory*

*Signaling Theory* explains that financial performance information provides signals to investors regarding future growth prospects. Financial ratios such as liquidity, solvency, and profitability are commonly used by investors to evaluate financial stability and expansion potential. Firms with high liquidity signal their ability to meet short-term obligations, while solvency reflects efficient capital structure management. High profitability also signals the firm's ability to generate earnings and finance sustainable expansion. In technology companies, financial performance signals become particularly important because investors often face uncertainty regarding digital business models and long-term growth prospects. Empirical studies indicate that strong financial ratios increase investor confidence, reduce the cost of capital, and encourage firm growth through improved access to financing and expansion opportunities (Spence, 1973; Ross, 1977; Leland & Pyle, 1977; Rajan & Zingales, 1995; Frank & Goyal, 2009).

### D. *The Effect of Liquidity on Firm Growth*

Liquidity reflects a firm's ability to meet short-term obligations and provide funds for operational activities and expansion. Firms with higher liquidity levels have greater financial flexibility to finance investments without relying heavily on external funding. In technology companies, liquidity plays an important role in supporting investments in digital platform development, technological infrastructure, and market expansion. However, excessive liquidity may also indicate inefficient asset utilization if firms hold large cash balances without productive investment. Therefore, the relationship between liquidity and firm growth may be positive or insignificant depending on financial management strategies. Several studies suggest that liquidity enhances firm growth by increasing investment capacity, although in technology sectors the effect is often influenced by innovation intensity and expansion strategies (Opler et al., 1999; Bates et al., 2009; Almeida et al., 2004; Denis & Sibilkov, 2010; Brown et al., 2009).

H1: Liquidity affects firm growth.

### E. *The Effect of Solvency on Firm Growth*

Solvency reflects a firm's ability to utilize debt as a financing source for investment. An optimal capital structure allows firms to increase investment capacity and accelerate *asset growth*. In technology companies, debt may be used to finance technological development, digital market expansion, and operational capacity improvements. However, excessive leverage increases financial risk and limits flexibility in obtaining additional financing. Previous studies indicate that solvency has mixed effects on firm growth, where moderate

leverage may enhance growth through increased investment capacity, while high leverage may hinder growth due to rising financial costs and bankruptcy risk. Therefore, examining the relationship between solvency and firm growth is particularly important in technology sectors characterized by high funding requirements and business risk (Myers, 1984; Rajan & Zingales, 1995; Titman & Wessels, 1988; Lang et al., 1996; Hennessy & Whited, 2007).

H2: Solvency affects firm growth.

#### **F. The Effect of Profitability on Firm Growth**

Profitability reflects a firm's ability to generate earnings that can be used as internal financing to support expansion. Firms with higher profitability have greater investment capacity without relying on debt financing. In technology companies, profits are often used for innovation development, digital platform improvement, and market expansion. However, during early growth stages, technology firms often sacrifice profitability to increase market share, making profitability not always a significant determinant of firm growth. Previous studies indicate that profitability plays an important role in promoting firm growth through enhanced investment capacity; however, in high-growth firms, innovation and expansion strategies often dominate short-term profitability considerations (Carpenter & Petersen, 2002; Brown et al., 2009; Demirgüç-Kunt et al., 2020; Rajan & Zingales, 1995; Lang et al., 1996).

H3: Profitability affects firm growth.

#### **G. Simultaneous Effect of Liquidity, Solvency, and Profitability on Firm Growth**

Liquidity, solvency, and profitability represent key indicators that collectively reflect a firm's overall financial condition. The combination of these ratios illustrates a firm's ability to meet short-term obligations, manage capital structure, and generate earnings to support expansion. In technology companies, firm growth is not influenced by a single financial ratio but rather by the interaction among liquidity, solvency, and profitability simultaneously. Firms with strong liquidity, optimal capital structure, and high profitability possess greater investment capacity to accelerate *asset growth* and business expansion. Empirical evidence suggests that the simultaneous combination of financial ratios provides stronger explanatory power for firm growth than individual effects, particularly in high-growth industries such as technology (Fazzari et al., 1988; Carpenter & Petersen, 2002; Brown et al., 2009; Rajan & Zingales, 1995; Lemmon et al., 2008).

H4: Liquidity, solvency, and profitability simultaneously affect firm growth.

### **3. RESEARCH METHOD**

This study employs a quantitative approach aimed at analyzing the effects of liquidity, solvency, and profitability on the growth of technology companies listed on the Indonesia Stock Exchange. The quantitative approach is selected because the research utilizes numerical data derived from corporate financial statements and analyzes them using econometric statistical models. The type of research conducted is *explanatory research*, which seeks to examine causal relationships among variables through panel data regression analysis. The use of panel data allows the study to combine *time-series* and *cross-sectional* dimensions, thereby increasing the number of observations, reducing potential bias, and capturing heterogeneity across technology firms included in the sample.

The population of this study consists of all technology sector companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The sampling technique used is *purposive sampling* with the following criteria: (1) technology sector companies continuously listed during the observation period, (2) companies that publish complete annual financial statements from 2020 to 2024, (3) companies with available financial ratio data required for this study, and (4) companies that were not *delisted* during the observation period. Based on these criteria, a sample of 47 technology companies was obtained with a five-year observation period, resulting in 235 panel data observations used in the analysis.

The data used in this study are secondary data obtained from annual financial reports, company annual reports, and official publications of the Indonesia Stock Exchange. Data were collected using documentation techniques by accessing the official website of the Indonesia Stock Exchange and the respective company websites. The collected data include total assets, current assets, current liabilities, total debt, total equity, and net income, which are used to calculate the research variables. The use of secondary data enables the study to obtain objective, measurable, and comparable financial information across firms within the same period.

The dependent variable in this study is firm growth measured using *asset growth*. *Asset growth* is calculated by comparing total assets in the current year with total assets in the previous year. The independent variables consist of liquidity, solvency, and profitability. Liquidity is proxied by the *Current Ratio* (CR), calculated as current assets divided by current liabilities. Solvency is proxied by the *Debt to Equity Ratio* (DER), calculated as total debt divided by total equity. Profitability is proxied by *Return on Assets* (ROA), calculated as net income divided by total assets. These ratios are selected because they comprehensively represent the firm's financial condition from liquidity, capital structure, and profitability perspectives.

The analytical model used in this study is panel data regression. The research model is formulated as follows:

$$AG_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 DER_{it} + \beta_3 ROA_{it} + \varepsilon_{it} \quad (1)$$

where AG represents *asset growth*, CR represents *current ratio*, DER represents *debt to equity ratio*, ROA represents *return on assets*,  $i$  denotes the firm,  $t$  denotes the time period,  $\beta_0$  represents the constant,  $\beta_1$ – $\beta_3$  represent regression coefficients, and  $\varepsilon$  represents the *error term*. Panel data regression is selected because it simultaneously captures variations across firms and over time, producing more efficient estimates compared to separate *cross-sectional* or *time-series* regression models.

The data analysis procedure begins by determining the most appropriate panel regression model using three approaches: *Common Effect Model*, *Fixed Effect Model*, and *Random Effect Model*. Model selection is conducted using the Chow test to determine the best model between the *Common Effect Model* and *Fixed Effect Model*. Subsequently, the Hausman test is performed to determine the best model between the *Fixed Effect Model* and *Random Effect Model*. The selected model is then used as the primary regression model in this study. The *Fixed Effect Model* is employed when unobserved firm-specific characteristics are assumed to influence the growth of technology companies. Hypothesis testing is conducted using the *t-test* to examine the partial effect of each independent variable on the dependent variable and the *F-test* to examine the simultaneous effects of independent variables on firm growth. In addition, the coefficient of determination ( $R^2$ ) is used to measure the model's ability to explain variations in the growth of technology companies. The significance level used in this study is 5 percent. All data processing procedures are conducted using *EViews* econometric software to obtain accurate and reliable panel data regression estimates.

#### 4. RESULTS AND DISCUSSION

This study aims to analyze the effects of liquidity, solvency, and profitability on the growth of technology companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The research employs secondary data derived from the annual financial statements of technology firms and applies a panel data approach for analysis. The sample consists of 47 technology sector companies selected using *purposive sampling* criteria, with a five-year observation period. Consequently, the total number of observations used in this study is 235 panel data points, representing a combination of *cross-sectional* and *time-series* dimensions. The use of panel data enables a more comprehensive analysis by capturing both inter-firm variations and temporal changes in firm performance, thereby improving estimation efficiency and reducing potential bias associated with purely *cross-sectional* or *time-series* analyses (Baltagi, 2021; Wooldridge, 2010; Gujarati & Porter, 2009; Hsiao, 2014; Greene, 2012).

The dependent variable in this study is firm growth, proxied by *asset growth*. *Asset growth* is used as an indicator because technology companies tend to expand through investments in digital infrastructure, technological development, and operational capacity. Meanwhile, the independent variables consist of liquidity, solvency, and profitability. Liquidity is proxied by the *Current Ratio* (CR), which reflects the firm's ability to meet short-term obligations. Solvency is proxied by the *Debt to Equity Ratio* (DER), representing the firm's capital structure in terms of debt relative to equity. Profitability is proxied by *Return on Assets* (ROA), which measures the firm's ability to generate earnings from its assets. These three variables are selected because they collectively represent the firm's financial condition in terms of liquidity management, capital structure, and operational performance, which are essential in explaining firm growth, particularly in innovation-driven industries such as technology (Penrose, 1959; Higgins, 1977; Coad, 2009; Delmar et al., 2003; Demir et al., 2017).

Data analysis is conducted using panel data regression to examine the effects of liquidity, solvency, and profitability on the growth of technology companies. The panel regression approach is chosen because it increases the number of observations, reduces multicollinearity issues, and accommodates heterogeneity across firms. Furthermore, panel data models allow the study to identify the effects of independent variables on firm growth more accurately compared to separate *cross-sectional* or *time-series* approaches. The estimation results from panel data regression are then used to evaluate both partial and simultaneous effects of liquidity, solvency, and profitability on the growth of technology companies included in the sample. This approach provides more robust and efficient parameter estimates and enables a deeper understanding of financial determinants influencing firm growth in the technology sector (Baltagi, 2021; Wooldridge, 2010; Hsiao, 2014; Greene, 2012; Gujarati & Porter, 2009).

Table 1. Hypothesis Testing Results Using the Fixed Effect Model (FEM)

Dependent Variable: AG  
Method: Panel Least Squares  
Date: 12/07/25 Time: 19:49  
Sample: 2020 2024  
Periods included: 5

Cross-sections included: 47

Total panel (balanced) observations: 235

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3931.127	793.3218	4.955274	0.0000
CR	59.95930	108.7094	0.551556	0.5819
DER	2.548152	205.6693	0.012390	0.9901
ROA	-0.740935	2.494480	-0.297030	0.7668
Effects Specification				
Cross-section fixed (dummy variables)				
Root MSE	7890.361	R-squared		0.744450
Mean dependent var	4235.696	Adjusted R-squared		0.676763
S.D. dependent var	15641.72	S.E. of regression		8892.931
Akaike info criterion	21.21020	Sum squared resid		1.46E+10
Schwarz criterion	21.94629	Log likelihood		-2442.199
Hannan-Quinn criter.	21.50696	F-statistic		10.99852
Durbin-Watson stat	2.087772	Prob(F-statistic)		0.000000

The initial stage of the analysis involved determining the most appropriate panel data regression model to examine the effects of liquidity, solvency, and profitability on the growth of technology companies. Model selection was conducted using the Chow test and the Hausman test. The Chow test result produced a probability value of 0.0000, which is lower than the 0.05 significance level, indicating that the *Fixed Effect Model* (FEM) is more appropriate than the *Common Effect Model*. Furthermore, the Hausman test yielded a probability value of 0.0174, which is also below 0.05, confirming that the *Fixed Effect Model* is preferable to the *Random Effect Model*. Therefore, the *Fixed Effect Model* was selected as the main regression model in this study because it is capable of capturing unobserved firm-specific characteristics that may influence the growth of technology companies. The use of the *fixed effects* approach is particularly relevant in panel data analysis where heterogeneity across firms is assumed to be correlated with explanatory variables, thus providing more consistent and efficient estimates (Baltagi, 2021; Wooldridge, 2010; Greene, 2012; Hsiao, 2014; Gujarati & Porter, 2009).

The estimation results of the *Fixed Effect Model* indicate that liquidity, proxied by the *Current Ratio* (CR), has a coefficient value of 59.95930 with a probability value of 0.5819. The probability value exceeding 0.05 suggests that liquidity does not have a statistically significant effect on the growth of technology companies. This finding implies that the ability of firms to meet short-term obligations does not directly encourage *asset growth*. In technology companies, liquidity is more likely allocated to maintaining operational stability, financing innovation activities, and supporting digital platform development rather than directly increasing tangible asset investment. Consequently, high liquidity does not necessarily translate into higher firm growth, particularly in innovation-driven industries where capital allocation is oriented toward long-term strategic expansion (Brown et al., 2012; Carpenter & Petersen, 2002; McKelvie & Wiklund, 2010; Demir et al., 2017; Coad et al., 2016).

The solvency variable, measured using the *Debt to Equity Ratio* (DER), shows a coefficient value of 2.548152 with a probability value of 0.9901. The probability value far above the 0.05 significance level indicates that solvency does not significantly affect the growth of technology companies. This result suggests that capital structure, as measured by the proportion of debt to equity, is not the primary determinant of *asset growth* in technology firms. This condition may occur because technology companies tend to rely more on equity-based financing and strategic investments rather than debt financing. Additionally, existing debt usage may not be directly allocated to productive *asset expansion*, but rather to operational scaling, research and development, and digital ecosystem development, thereby weakening the relationship between leverage and firm growth (Hall & Lerner, 2010; Rajan & Zingales, 1995; Titman & Wessels, 1988; Frank & Goyal, 2009; Wu & Yeung, 2012).

Furthermore, profitability proxied by *Return on Assets* (ROA) has a coefficient value of -0.740935 with a probability value of 0.7668. This result indicates that profitability does not significantly affect the growth of technology companies. The finding suggests that the firm's ability to generate earnings does not directly stimulate *asset growth* during the observation period. This condition reflects the nature of technology firms that prioritize long-term growth through market expansion, innovation, and platform development rather than short-term profit maximization. As a result, profitability may not serve as a primary driver of firm growth, particularly for firms operating in early growth stages or pursuing aggressive scaling strategies (Delmar et al., 2003; Coad, 2009; Demir et al., 2017; Audretsch & Belitski, 2020; McKelvie & Wiklund, 2010).

Although liquidity, solvency, and profitability do not exhibit significant partial effects on firm growth, the simultaneous test results indicate an *F-statistic* value of 10.99852 with a significance level of 0.0000. This result demonstrates that liquidity, solvency, and profitability jointly have a significant effect on the growth of technology companies. Additionally, the coefficient of determination (*R-squared*) value of 0.744450 indicates that 74.45% of the variation in firm growth can be explained by the research model, while the remaining 25.55% is influenced by other variables outside the model such as innovation intensity, firm size, expansion

strategy, and industry-specific characteristics. These findings suggest that the combined financial condition of firms plays a more important role in explaining growth than individual financial ratios considered separately (Fazzari et al., 1988; Carpenter & Petersen, 2002; Brown et al., 2009; Frank & Goyal, 2009; Lemmon et al., 2008).

Overall, the results indicate that the growth of technology companies listed on the Indonesia Stock Exchange during the 2020–2024 period is largely influenced by firm-specific characteristics captured by the *fixed effects* rather than by individual liquidity, solvency, and profitability ratios. This finding implies that technology firm growth is heterogeneous and strongly driven by internal factors such as innovation strategy, managerial capability, digital business models, and expansion policies. Therefore, analyzing the growth of technology companies requires a more comprehensive approach that incorporates both financial and non-financial factors simultaneously, particularly in industries characterized by rapid technological change and high uncertainty (Penrose, 1959; Coad, 2009; Demir et al., 2017; Audretsch & Belitski, 2020; McKelvie & Wiklund, 2010).

#### **A. The Effect of Liquidity on Technology Firm Growth**

The results indicate that liquidity, proxied by the *Current Ratio*, does not have a significant effect on the growth of technology companies listed on the Indonesia Stock Exchange. This finding suggests that a firm's ability to meet short-term obligations does not directly encourage *asset growth*. In technology companies, high liquidity is often not allocated to physical *asset expansion* but rather to technology development, platform improvement, research and development, and user acquisition strategies. These characteristics cause liquidity to play a limited role in driving *asset growth* in technology firms. Moreover, technology companies tend to maintain large cash holdings as buffers against business uncertainty, meaning that higher liquidity levels are not necessarily followed by significant *asset investment*.

From a theoretical perspective, *Pecking Order Theory* suggests that firms with higher liquidity possess greater internal financing capacity, which should support firm growth. However, in technology firms, internal funds are frequently directed toward strengthening digital business models rather than expanding conventional assets. As a result, the relationship between liquidity and firm growth becomes insignificant. Previous studies also indicate that liquidity does not always directly affect firm growth, particularly in innovation-intensive firms where liquid funds are primarily used for technological development instead of *asset expansion*. Additionally, firms with high liquidity may experience *idle cash holdings*, leading to inefficient asset utilization and limited growth impact. These findings suggest that liquidity in technology companies functions more as financial stability support rather than a direct driver of firm growth (Opler et al., 1999; Bates et al., 2009; Almeida et al., 2004; Denis & Sibilkov, 2010; Brown et al., 2009).

#### **B. The Effect of Solvency on Technology Firm Growth**

The findings show that solvency, proxied by the *Debt to Equity Ratio*, does not significantly affect the growth of technology companies. This result indicates that capital structure, measured by the proportion of debt to equity, is not a primary determinant of *asset growth* in technology firms. Technology companies operate with innovation-driven and platform-based business models, meaning that financing needs are not always directed toward fixed *asset investment*. Debt financing in technology firms is often used for operational scaling, system development, and digital marketing, which do not directly increase firm assets. Consequently, leverage does not significantly influence *asset growth*.

*Trade-Off Theory* explains that debt usage can enhance firm growth up to an optimal level, but excessive leverage increases financial risk. In technology firms, high business uncertainty leads companies to be more cautious in using debt financing. Furthermore, technology firms tend to rely more on equity financing or strategic investors rather than bank debt because intangible assets are difficult to use as collateral. This condition reduces the role of capital structure as a determinant of firm growth. Previous studies also show that the effect of solvency on firm growth is inconsistent, particularly in high-volatility sectors such as technology. Moderate leverage may enhance growth, whereas excessive leverage reduces financial flexibility and constrains expansion. Therefore, solvency is not a primary determinant of growth in technology firms (Myers, 1984; Rajan & Zingales, 1995; Titman & Wessels, 1988; Lang et al., 1996; Hennessy & Whited, 2007).

#### **C. The Effect of Profitability on Technology Firm Growth**

The results also indicate that profitability, proxied by *Return on Assets*, does not significantly affect the growth of technology companies. This finding implies that a firm's ability to generate earnings does not necessarily translate into increased *asset growth*. In technology firms, profits are frequently allocated to innovation development, improvement of digital services, and market expansion rather than to physical *asset accumulation*. Additionally, many technology companies operate in early growth stages where user acquisition and market share expansion are prioritized over achieving high profitability. This condition weakens the relationship between profitability and *asset growth*.

Theoretically, higher profitability provides greater internal financing capacity, enabling firms to expand operations. However, technology companies often adopt aggressive growth strategies that sacrifice short-term profits in favor of long-term expansion. Consequently, profitability may not significantly influence firm growth. Prior studies indicate that firms with low profitability can still grow rapidly due to external financing and scalable business models, while highly profitable firms may not experience significant *asset growth* if earnings are retained for operational stability. Therefore, the effect of profitability on technology firm growth becomes inconsistent. These findings highlight that growth in technology firms is more influenced by innovation and expansion strategies than by short-term earnings performance (Carpenter & Petersen, 2002; Brown et al., 2009; Demirgüç-Kunt et al., 2020; Rajan & Zingales, 1995; Lang et al., 1996).

#### **D. Simultaneous Effect of Liquidity, Solvency, and Profitability on Technology Firm Growth**

The simultaneous test results indicate that liquidity, solvency, and profitability collectively have a significant effect on the growth of technology companies. This finding suggests that although each variable individually does not show a significant effect, the combination of these financial ratios explains variations in firm growth. This implies that technology firm growth is not determined by a single financial indicator but rather by overall financial conditions. Firms with adequate liquidity, stable capital structures, and strong profitability possess greater financial capacity to support business expansion and increase *asset growth*.

Furthermore, the high coefficient of determination indicates that the research model explains a substantial portion of variation in technology firm growth. This suggests that the combined financial ratios still play an important role in explaining growth dynamics despite the innovation-driven nature of the technology sector. Previous studies also indicate that the simultaneous effect of financial ratios provides stronger predictive power for firm growth than individual effects. The interaction among liquidity, solvency, and profitability reflects the overall financial condition of firms, which determines their ability to expand operations and scale business activities. Therefore, the findings confirm that technology firm growth is influenced by comprehensive financial conditions as well as firm-specific characteristics captured by *fixed effects* in the panel model (Fazzari et al., 1988; Carpenter & Petersen, 2002; Brown et al., 2009; Frank & Goyal, 2009; Rajan & Zingales, 1995).

## **5. CONCLUSION**

This study aims to analyze the effect of liquidity, solvency, and profitability on the growth of technology companies listed on the Indonesia Stock Exchange during the period 2020–2024 using panel data regression. The results show that, partially, liquidity, solvency, and profitability do not have a significant effect on the growth of technology companies. These findings indicate that the growth of technology firms is not solely determined by traditional financial ratios but is more influenced by firm-specific factors such as innovation strategies, digital business models, and corporate expansion policies. However, simultaneously, liquidity, solvency, and profitability significantly affect firm growth, suggesting that overall financial conditions still play an important role in supporting the expansion of technology companies. This study implies that the analysis of technology firm growth requires a more comprehensive approach by considering both financial ratios and non-financial factors. Future research is recommended to include additional variables such as firm size, innovation, intangible assets, and digital capability in order to provide a deeper explanation of technology company growth.

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