Performance Evaluation Model of Startup Companies in ASEAN Countries

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Abstract. This study seeks to analyse the assessment framework for the financial performance and corporate value of startup enterprises in ASEAN nations. The data utilised comprises of startup enterprises located in the ASEAN region, specifically Singapore, Indonesia, and Malaysia. The research data comprises the financial statements of these organisations over the period from 2017 to 2021. The study focuses on two key variables: financial performance, which is assessed by return on invested capital and return on equity, and business value, which is calculated using Tobin's Q. The study's independent variable encompasses the investor protection offer (measured by a score developed based on survey data by the World Economic Forum) and capital market developments. This study will control several factors of company size, the ratio of company debt to long-term assets (leverage), and company growth. The findings confirm the hypothesis H1a, indicating that safeguarding the interests of a nation's investors has a favourable impact on the financial success of new enterprises, as assessed by the metrics of Return on Invested Capital (ROIC) and Return on Equity (ROE). Furthermore, there is statistical evidence that H1b visa programme is beneficial. This implies that having investor protection at the national level has a favourable impact on the worth of startup firms, as assessed by Tobin's Q. The results of hypothesis testing indicate that there is no statistical evidence for H2a, suggesting that the growth of a country's capital market does not have an impact on the financial performance of startups. Ultimately, the test demonstrates that H2b is not substantiated due to the fact that capital market advancements have a contrary impact on business value.

Keywords: startup, investor protection, capital market development, financial performance, company value, ASEAN.

1 Introduction

In the digital era like today, the use of technology is needed and profitable. The development of digital technology is a big reason why startup businesses have very fast growth in the world. This can be seen from the number of startups that are large from various countries.

The United States is the country with the largest number of startup businesses in the world. With the advancement of existing technology and the knowledge and business ideas owned by the community, a startup business in the United States is one of the profitable business choices. Famous startups in this country include Coursera, Teespring, Giphy to Tinder. The next position is India in the second place with the greatest number of startup businesses in the world. This is not surprising because India has good human resources in the field of technology. This has brought India to second place, followed by Britain, Canada, and Indonesia (Table 1).
The trend of digital startup business development in Indonesia in the digital 4.0 era continues to experience rapid growth every year. Figure 1 shows that from 2017 to 2018 there was an increase of 147 startups, equivalent to 8.6 percent. Growth from 2018 to 2019 was 368 or equivalent to 17.7 percent. Then growth from 2019 to 2020 there was an increase of 85 business enterprises or equivalent to 3.9 percent. And from 2020 to 2021 there is an increase of 146 or equivalent to 6.3 percent (Figure 1).

The rapid development of the startup business proves that this business is increasingly becoming a prima donna business among entrepreneurs, and is considered important and profitable both for business owners and the community during a digital era that relies entirely on the reliability of its technology. But unfortunately, according to CB Insight (2021) the biggest factor in the failure of a digital startup business is a lack of funds, which accounts for 38% of the first highest factor of 11 other failures (https://www.cbinsights.com/re-search/startup-failure-reasons-top/).

According to Techinasia (2021) around 90 percent of startups fail to maintain their business and only about 1 percent develop into unicorn (https://id.techinasia.com/alasan-startup-gagal). The second factor that causes startups to fail and be forced to close is running out of funds or lack...
of injections of funds or capital needed by the company to develop the business and cover all the company's operational needs.

This study addresses the primary issue of digital startup companies' failure, specifically the insufficiency of funding to sustain and expand the company's presence, thereby gaining recognition among a wide consumer base. The Initial Public Offering (IPO) is a significant aspect that affects both the financial performance of a company and the valuation of young enterprises [1]. This study posits that the initial public offering (IPO) is likely to have a favourable influence on the financial performance and overall worth of newly established enterprises. Hence, this study centres on the financial performance and valuation of startup companies that have undergone an initial public offering in three countries that have the largest number of startup companies in the ASEAN region, e.g., Malaysia, Indonesia, and Singapore.

Another factor that influences financial performance and company value is investor protection ([12]; [3]; [4]; [5]; [6]; [7]; and [8]). This is supported by [9] who provide evidence that the degree of investor protection has an impact on a company's reporting methods. Countries with high investor protection will tend to have high financial performance and company value. This is because these countries will want financial infrastructure, including financial reports, that are transparent to investors. A good investment climate will encourage the improvement of the company's performance to move forward.

Factors that are thought to influence financial performance and company value are capital market developments [10]. The capital market serves as a mechanism for corporations to acquire funds from the public or investors. Individuals could invest in various financial instruments, including shares, bonds, mutual funds, and other capital market instruments, through the capital market. Increased economic activity is anticipated since the capital market provides an additional source of funding, enabling enterprises to expand their operations on a larger scale. The objective is to enhance the company's revenue and promote the well-being of the broader community.

The paper is organized as described below. Section 2 contains background on the literature related to startups, company value, firm performance, investor protection, capital market development, and presents the hypotheses development. This is followed by a discussion of the research methodology in Section 3, followed by the results and discussion in Section 4. The research paper's conclusion and recommendations are presented in Section 5.

2 Literature Review

2.1. Institutional Theory

Institutional theory is a theory based on the view of social construction by [11]. Institutional theory plays a role in providing theoretical contributions regarding the differences between formal and informal institutions as well as the types of regulative, normative, and cultural-cognitive institutions, as well as various levels of institutions [12]. It has gained popularity in management theory due to its ability to elucidate organisational behaviour that contradicts economic logic. It is employed to comprehend organisations and management methods as outcomes of social, rather than economic, influences.
Institutional theory examines the function of social, political, and economic structures. According to this theory, the company operates and obtains its legitimacy. Scott explains that institutions determine the available ways to operate and provide the rules of the game in a way that limits, or encourages, certain patterns of behavior. It may evaluate the progress of accounting systems at both national and global levels, and also analyse the present modifications in terms of the users' quest for pertinent accounting information. It relies on the legal framework to guide its implementation and shapes the growth of accounting inside the organisation.

2.2. Stakeholders Theory

The paradigm underlying stakeholder theory explains that an organization can be viewed as a contractual link between resource holders [13]. It includes explicit and implicit contractual relationships between all parties involved. Stakeholders include shareholders, creditors, employees, managers, suppliers, customers, the general public, and local communities. It explicitly emphasizes the causes of conflict between managers and stakeholders. Stakeholder theory is also a way for adjustment mechanism theory to realign the interests of management and stakeholders.

Based on stakeholder theory, company management is assumed to carry out activities that are considered important and report these activities back to stakeholders. It explains how stakeholders to obtain information regarding the impact of the organization's activities on them. That is the case even when individuals opt not to actively contribute to the organization's survival or when they do not use the information [14].

2.3. Startup Company

According to Investopedia, a startup is a new company to develop a unique product or service according to the target market, which is founded by one or more people. To market or introduce their products or services, these companies tend to use online systems. These companies also tend to grow faster than others. The main difference between startups and small businesses lies in product or service innovation. Ordinary companies do not create unique features that stand out such as salons, restaurants, etc. In startup companies, innovation is very important in their survival. In addition, they must create something new, instead of improving what already exists. Situations like this certainly require sophisticated innovation to develop and gain benefits.

2.4. Company Financial Performance

Financial performance refers to the state of a company's finances during a specific period, including the acquisition and allocation of funds. The measurement often involves assessing variables like as capital sufficiency, liquidity, and profitability [15]. The financial performance assessment also indicates that the organisation possesses strong credibility among investors and the general public.

Analysts worldwide utilise statistics such as Return on Equity (ROE) and Return on Investment (ROI) to assess the prospective viability of an investment, as stated by Investopedia. Return on Investment (ROI) is a financial metric that measures the profitability of an investment by comparing the investment expenses to the profits generated. The dominant ratio is the quotient obtained by dividing the net profit by the original capital cost of the investment. As the ratio increases, the profit also increases.
ROE is a financial ratio that integrates the income statement and balance sheet. Return on equity (ROE) is determined by comparing the company’s profit or net profit to its shareholder equity. This number illustrates the company’s capacity to transform equity investments into profits and quantifies the overall return on equity capital. Return on Equity (ROE) quantifies a company's financial success by evaluating the profitability generated from an individual's total ownership stake.

2.5. Investor Protection

One of the factors that determines the disclosure of high-quality accounting information is strong investor protection ([16]; [17]; [18]; [9]; [19]; [3]). This is done through the principle of "full disclosure" as a preventive measure and heavy sanctions through administrative sanctions, criminal and civil prosecution, unlawful acts, and breaches of contract. [9] company reporting practices are influenced by the level of investor protection.

The ASEAN region is important to investigate because most countries have weak institutional arrangements, which are demonstrated by, among other things, investor protection, legal systems, and weak enforcement of accounting standards [20]. The investor protection data in this research uses the 2020 Global Competitiveness Index (GCI), which is the investor protection index was formulated by the World Economic Forum (WEF).

2.6. Capital Market Development

Capital markets encompass a broad range of markets that enable the trading of securities with maturities spanning one year, medium-term, or long-term. The capital market channels savings and investments between capital suppliers and capital users through intermediaries. It is a network of financial institutions, consisting of a set of mechanisms, processes and infrastructure, that facilitate the integration of suppliers and users of medium and long-term capital (World Bank, 2020).

Furthermore, the World Bank also explained that The capital market serves as a link between the financial sector and the tangible sector, encompassing the production of products and services. Capital markets play a crucial role in economic development since they enable expansion in the real sector by granting producers of goods and services, as well as infrastructure development firms, access to long-term funding.

2.7. Investor Protection, Financial Performance, and Company value

Research shows that corporate reporting incentives and variations in reporting methods are influenced by factors such as law enforcement, investor protection, and capital market features [21]; [22]. The presence of investor protection in a country has a crucial role in fostering the growth and advancement of financial markets [16]. There is evidence that corporate reporting practices are influenced by the degree of investor protection [9]. Disclosure of high-quality accounting information is also determined by strong investor protection ([16]; [17]; [18]; [9]; [19]; [3]).

The literature also shows that corporations based in nations with robust investor protection regulations exhibit greater transparency and engage in less earnings management ([23]; [24]). Countries that have robust judicial systems that prioritise the protection of investor rights are more inclined to motivate enterprises based in those countries to employ advanced and transparent measurement methodologies [10]. Therefore, this study argues that strong investor protection will
exert an impact on the financial performance and company value of startup enterprises in the ASEAN region. The present study posits the subsequent hypothesis:

**H1a. The level of investor protection has a positive effect on the financial performance of startup companies.**

**H1b. The level of investor protection has a positive effect on the value of startup companies.**

### 2.8. Capital Market Developments, Financial Performance, and Company Value

[25], [26] introduced a conceptual framework for accounting that incorporates the influence of stock market pressures in shaping a country's accounting system. In the theoretical framework presented by [25], it is argued that the finance system plays a crucial role in driving the evolution of various accounting systems. This aligns with the findings of [27], whose study indicates that the magnitude of a nation's equities market is linked to the disclosure obligations imposed by its stock exchange.

The literature is consistent with [28] who presents empirical evidence that capital market considerations can elucidate variations in accounting systems. Countries that possess more advanced equities markets will inherently exhibit a greater degree of involvement in the market. Consequently, there is now a significant need for current data regarding the worth of companies. Therefore, corporations based in nations with well-established capital markets will exhibit superior financial performance and firm value.

Therefore, this study argues enterprises located in nations with robust investor protection regulations exhibit a propensity for superior financial performance and company value. The present study posits the subsequent hypothesis:

**H2a. The level of capital market development has a positive effect on the financial performance of startup companies.**

**H2b. The level of capital market development has a positive effect on the value of startup companies.**

### 3 Research Method

This study focuses on startup companies listed on the Indonesia, Malaysia, and Singapore stock exchanges. The data used is secondary data contained in the OSIRIS database in 2017-2021.

#### 3.1. Data and Sample

The data for this research are digital startup companies that conduct Initial Public Offering (IPO) in 2017-2021. This study used a purposive sample strategy with specific criteria [29]. The rationale behind employing the purposive sample technique is its suitability for quantitative research that does not aim to generalize [29].

The data sources utilized in this study are derived from secondary sources. The utilized data consists of startup companies operating at the unicorn level in the ASEAN region, specifically in Singapore, Indonesia, and Malaysia. The research data consists of the financial statements of these companies spanning the past five years.
3.2. Variables and Measurement

The data sources utilized in this study are derived from secondary sources. The data utilized consists of startup companies operating at the unicorn level in the ASEAN region, specifically in Singapore, Indonesia, and Malaysia. The research data consists of the financial statements of these companies spanning the past five years. Investor protection data is obtained from World Economic Forum data, while data to determine capital market developments is obtained from World Bank data.

Firm Performance

Financial performance is the yardstick for evaluating a company's success, and it is assessed by metrics such as return on invested capital (ROIC) and return on equity (ROE). Both Return on Invested Capital (ROIC) and Return on Equity (ROE) are metrics used to assess a company's profitability [15].

Return on invested capital (ROIC) is a financial metric that measures the profitability of the funds invested in a company. ROIC measures the ability of companies to utilize their capital to generate profits and returns for suppliers of capital. ROIC is important because it is used to assess the competitive position of a business; it is a measure of industry profitability; and it is one way to increase shareholder value.

Return on equity (ROE) is a financial metric used to assess a company's capacity to create profits from the investments made by its shareholders. For investors, ROE is the most interesting type of return to know because the calculation of ROE is the cleanest because various expenses have been deducted. A higher ROE estimate will enhance the company's repute among capital market participants. This is due to the business's demonstrated ability to effectively utilize capital support.

To calculate ROIC, the following formula is used:

\[
ROIC_{t,t} = \frac{Net\ Income_{t,t}}{Invested\ Capital_{t,t}} \tag{1}
\]

As for calculating ROE, the following formula is used:

\[
ROE_{t,t} = \frac{After\ tax\ net\ income_{t,t}}{Owners\ equity_{t,t}} \times 100\% \tag{2}
\]

Firm Value

The second dependent variable in this study is the value of the firm, which is measured by Tobin's Q. Tobin's q shows the company's performance in managing company assets [30] which is formulated as follows:

For 2021:

\[
Tobin's\ Q_{t,t} = \frac{Market\ Value\ of\ Common\ Stock_{t,t} + Book\ Value\ of\ Debt_{t,t}}{Total\ Asset_{t,t}} \tag{3}
\]
Investor Protection

Investor protection as measured by an investor protection score reported in the Global Competitiveness Report provided by the World Economic Forum.

Capital Market Development

Capital market development is measured by the ratio of the total market capitalization of all companies registered in a country, where a specific company has its headquarters, to the gross domestic product (GDP) of that country [10].

Control Variable

This study controls for firm size, which is quantified by the natural logarithm of total assets. In addition, this study also takes into account the company’s growth potential, which are quantified by calculating the difference between the sales of this year and the sales of the previous year. This study additionally accounts for business leverage, which is quantified as the ratio of long-term debt to total assets.

3.3. Data Analysis and Hypothesis Testing

The data sources utilized in this study are derived from secondary sources. The data utilized consists of startup companies operating at the unicorn level in the ASEAN region, specifically in Singapore, Indonesia, and Malaysia. The research data consists of the financial statements of these companies spanning the past five years. Investor protection data is obtained from World Economic Forum data, while data to determine capital market developments is obtained from World Bank data.

Descriptive Statistical Analysis

Descriptive statistical analysis is a method used to provide a detailed description of the properties of the data, so that it is easier to understand and form more concise information and describe financial performance and firm value. This descriptive analysis calculates the mean (mean), standard deviation, maximum value, minimum value, and data range (Ghozali, 2016).

Classical Assumption Test

Multiple regression analysis can be conducted if the standard assumption test is satisfied. The primary objective of classical assumption testing is to ensure that the regression equation derived from the data is accurate in its estimation, impartial, and consistent. The classical assumption test comprises of tests for normality, multicollinearity, heteroscedasticity, and autocorrelation.

Hypothesis Testing

Hypothesis testing is conducted by the utilization of multiple regression analysis. The objective is to observe the impact of the independent variable on the dependent variable. The methodology employed to evaluate the hypothesis is outlined as follows.

Empirical Model

This study tested hypotheses H1a and H1b, which aims to determine the effect of the level of investor protection on financial performance (H1a) and the value of startup companies (H1b). The empirical model for testing the hypothesis is:
FP\_it = \alpha_0 + \beta_1 \text{INV}_{it} + \beta_2 \text{MARKET}_{it} + \beta_3 \text{SIZE}_{it} + \beta_4 \text{GROWTH}_{it} + \beta_5 \text{LEVERAGE}_{it} + \epsilon_i \quad (3)

where, FP or firm performance is the financial performance of the startup company; INV is investor protection; and MARKET is the development of the capital market. This study controls for SIZE or firm size; GROWTH or sales growth; and LEVERAGE which shows the ratio of long-term debt to total assets.

This study also tests hypotheses H2a and H2b, which aims to determine the effect of the level of capital market development on financial performance (H2a) and the value of startup companies (H2b). The empirical model for testing the hypothesis is:

FV\_it = \alpha_0 + \beta_1 \text{INV}_{it} + \beta_2 \text{MARKET}_{it} + \beta_3 \text{SIZE}_{it} + \beta_4 \text{GROWTH}_{it} + \beta_5 \text{LEVERAGE}_{it} + \epsilon_i \quad (4)

where, FV or firm value is the value of a startup company as measured by Tobin’s Q; INV is investor protection; and MARKET is the development of the capital market. This study controls for SIZE or firm size; GROWTH or sales growth; and LEVERAGE which shows the ratio of long-term debt to total assets.

**Criteria for Acceptance or Rejection of the Zero Hypothesis**

Decision making is done by setting the level of significance or = 5% or 0.05. If the p-value is less than or equal to 0.05, it indicates that the independent variable has a significant impact on the dependent variable. In other words, the null hypothesis is rejected based on statistical evidence. If the p-value is greater than 0.05, it indicates that the independent variable does not have a significant effect on the dependent variable. In other words, there is no statistical evidence to reject the null hypothesis.

### 4 Discussion

#### 4.1. Data and Sample

The data sources utilized in this study are derived from secondary sources. The data utilized consists of startup companies operating at the unicorn level in the ASEAN region, specifically in Singapore, Indonesia, and Malaysia. The research data consists of the financial statements of these companies spanning the past five years. Investor protection data is obtained from World Economic Forum data, while data to determine capital market developments is obtained from World Bank data. The data and research samples are presented in Table 1 as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital startup companies registered in Indonesia, Malaysia and Singapore in 2017-2021</td>
<td>167</td>
</tr>
<tr>
<td>Total in the 2017-2021 research period</td>
<td>835</td>
</tr>
</tbody>
</table>

The sample companies in this study are digital startup companies registered in Indonesia, Malaysia, and Singapore that publish financial reports in 2017-2021, and meet the criteria of purposive sampling. The data is obtained from the OSIRIS database which is accessed through
the FEB UGM library. Based on the sampling method, there are 167 nonfinancial startup companies in the three countries. The total number of observations is 835 observations.

Descriptive Statistics

Descriptive statistical analysis is employed to provide a comprehensive overview of various financial performance variables, including firm performance (FP), firm value (FV), investor protection, and capital market developments. This analysis involves examining key metrics such as the maximum value, minimum value, average value (mean), and standard deviation. Table 2 displays the descriptive statistics.

Table 2. Data and Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>FV</td>
<td>835</td>
<td>0.4956217</td>
<td>0.7275484</td>
<td>.0001512</td>
<td>6.449068</td>
</tr>
<tr>
<td>ROIC</td>
<td>835</td>
<td>0.6978011</td>
<td>0.2310003</td>
<td>0.0697</td>
<td>1</td>
</tr>
<tr>
<td>ROE</td>
<td>835</td>
<td>0.1001780</td>
<td>1.1648485</td>
<td>0</td>
<td>1.801833</td>
</tr>
<tr>
<td>INT</td>
<td>835</td>
<td>73.16168</td>
<td>8.535606</td>
<td>64.6</td>
<td>84.8</td>
</tr>
<tr>
<td>MARKET</td>
<td>835</td>
<td>28.42825</td>
<td>26.56833</td>
<td>0.286484</td>
<td>.836726</td>
</tr>
<tr>
<td>SIZE</td>
<td>734</td>
<td>10.80648</td>
<td>2.00595</td>
<td>1.856421</td>
<td>15.64874</td>
</tr>
<tr>
<td>Leverage</td>
<td>734</td>
<td>0.106977</td>
<td>0.17318</td>
<td>0</td>
<td>2.831469</td>
</tr>
<tr>
<td>Growth</td>
<td>624</td>
<td>0.623047</td>
<td>4.27628</td>
<td>-1</td>
<td>79.09919</td>
</tr>
</tbody>
</table>

The firm value variable ranged from a minimum of 0.0002 to a maximum of 6.4491 between 2017 and 2021. The firm value variable has an average value (mean) of 0.4956 and a standard deviation of 0.7275. This indicates that the standard deviation value is higher than the average value (mean). This suggests that there is a significant amount of variability in the data values, resulting in potentially substantial differences between individual data points. Consequently, the average value (mean) is inadequate for representing the full data due to its heterogeneity[31].

The ROIC variable ranged from 0.0697 to 1 between 2017 and 2021. The variable has an average value (mean) of 0.6898 and a standard deviation of 86.3994. This implies that the standard deviation is higher than the mean, suggesting a significant amount of variability in the data points and perhaps wider disparities between individual results.

The ROE variable ranged from 0 to 1 between 2017 and 2021. The average (mean) of the Return on Equity (ROE) is 0.1002, with a standard deviation of 0.1648. Specifically, the standard deviation exceeds the mean, indicating significant variability in the data and the possibility of substantial gaps between individual data points.

The solvency ratio of the investor protection variable ranged from 0.8.5356 to 1.1036 between 2017 and 2021. The firm value variable has an average value (mean) of 73.1617 and a standard deviation of 0.7275. This indicates that the standard deviation is higher than the average value. This suggests that there is minimal variability in the data values. An occurrence may result in a small gap between consecutive data values.

The capital market development variable ranged from a minimum value of 0.2867 to a maximum value of 0.8363 between 2017 and 2021. The mean value of the ratio variable is 0.5843, with a standard deviation of 0.2657. This suggests that there is a significant amount of variance in
the data values, since the standard deviation is more than the mean. There is a possibility of occurrence, and there may be a greater disparity between one data value and another.

**Regression Analysis**

Regression analysis has a purpose to determine the predictive relationship between the dependent variable and the independent variable [31]. The statistical technique employed in this study is multiple linear regression analysis. The outcomes of data processing utilizing SPSS through multiple linear regression analysis are displayed in the table provided below.

Hypothesis 1a and 2a (when using ROIC as measure of financial performance) are shown in the following table.

**Table 3. Hypothesis Testing H1a and H2a (with ROIC)**

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 614</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>6.57070088</td>
<td>5</td>
<td>1.31414018</td>
<td>F(5, 608) = 30.31</td>
</tr>
<tr>
<td>Residual</td>
<td>26.363684</td>
<td>608</td>
<td>.043561322</td>
<td>Prob &gt; F = 0.0000</td>
</tr>
<tr>
<td>Total</td>
<td>32.9343849</td>
<td>613</td>
<td>.053726566</td>
<td>Adj R-squared = 0.1929</td>
</tr>
</tbody>
</table>

adj. R-squared = 0.1929

The coefficient of determination (R²) shows the extent to which the contribution of the independent variable in the regression model is able to explain variations in the dependent variable. The results show the value of adj. R² is 0.1929. This shows that investor protection and capital market development together influence Return on Invested Capital (ROIC) by 19.29%. The p-value (0.000) shows that investor protection has a positive effect on ROIC. That means, H1a is supported. However, hypothesis testing showed that H2a was not supported. This means that capital market developments do not affect ROIC.

Testing Hypotheses 1a and 2a (when using ROE as a measure of financial performance). The results are shown in the following table:
Table 4. Hypothesis Testing H1a and H2a (with ROE)

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 614</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>0.619411192</td>
<td>5</td>
<td>0.123982230</td>
<td>F(5, 608) = 5.26</td>
</tr>
<tr>
<td>Residual</td>
<td>14.3199214</td>
<td>608</td>
<td>0.023552502</td>
<td>Prob &gt; F = 0.0001</td>
</tr>
<tr>
<td>Total</td>
<td>14.9393326</td>
<td>613</td>
<td>0.024370853</td>
<td>R-squared = 0.0415</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Adj R-squared = 0.0336</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Root MSE = 0.15347</td>
</tr>
</tbody>
</table>

The results show the value of adj. $R^2$ is 0.036. This shows that investor protection and capital market development together influence Return on Equity (ROE) by 3.36%. The p value (0.000) indicates that investor protection has a positive effect on ROE. That means, H1a is supported. However, hypothesis testing showed that H2a was not supported. This means that capital market developments do not affect ROE.

Hypothesis Testing H1b and H2b; (when utilizing Tobin's Q as a metric for business valuation). The hypothesis testing is presented in the subsequent table.

Table 5. Hypothesis Testing H1b and H2b (with Tobin’s Q)

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 614</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>16.2376261</td>
<td>5</td>
<td>3.2475222</td>
<td>F(5, 608) = 0.14</td>
</tr>
<tr>
<td>Residual</td>
<td>242.642866</td>
<td>608</td>
<td>0.399082345</td>
<td>R-squared = 0.0627</td>
</tr>
<tr>
<td>Total</td>
<td>258.879692</td>
<td>613</td>
<td>0.422315974</td>
<td>Root MSE = 0.63173</td>
</tr>
</tbody>
</table>

The results indicate that the adjusted R-squared value is 0.055. This shows that investor protection and capital market development together influence company value (Tobin’s Q) by 5.5%. The p value (0.000) suggests that there is a statistically significant positive relationship...
between investor protection and firm value. That means, H1b is supported. Capital market developments do not have a positive effect on firm value. That means, H2b is not supported.

5 Conclusion

Conclusion

The findings of this study can be summarized as follows. The test results indicate that investor protection has a favorable impact on the financial performance of startup enterprises, as evaluated by both Return on Invested Capital (ROIC) and Return on Equity (ROE). Furthermore, the examination demonstrates that safeguarding the interests of investors has a beneficial impact on the valuation of new enterprises, with business value being assessed by the utilization of Tobin’s Q. Furthermore, the progress of the capital market does not exert a substantial impact on the financial performance of startups. Lastly, it is worth noting that capital market developments have a negligible impact on the value of a company.

Suggestions

First, future research could explore cross-country studies with startups trading their shares on stock exchanges in other ASEAN countries. Second, research in the financial sector can be the focus of further research.

References


