Eduvest – Journal of Universal Studies
Volume 5 Number 10, October, 2025
p- ISSN 2775-3735- e-ISSN 2775-3727

# The Influence of Capital Market Knowledge, Fundamental Analysis, Technical Analysis, and Locus of Control on Stock Investment Decisions Among Gen Z

**Rena Novita, Wiliam Santoso, Cliff Kohardinata**
Universitas Ciputra Surabaya, Indonesia
Email: rnovita01@magister.ciputra.ac.id, wiliam.santoso@ciputra.co.id, ckohardinata@ciputra.ac.id

**ABSTRACT**

*Generation Z has emerged as a significant force in capital markets, with their investment participation growing substantially in recent years. However, understanding the factors influencing their investment decisions remains limited, particularly in emerging markets such as Indonesia. This research aims to analyze the influence of capital market knowledge, fundamental analysis, technical analysis, and locus of control on stock investment decisions among Generation Z investors in Jambi Province, Indonesia. The study employed a quantitative approach using purposive sampling with 220 respondents aged 18–30 years who are active stock investors. Data were collected through online questionnaires and analyzed using multiple linear regression with SPSS 22. The results indicate that all three independent variables—fundamental analysis (β = 0.163, p < 0.05), technical analysis (β = 0.361, p < 0.05), and locus of control (β = 0.205, p < 0.05)—have significant and positive influences on investment decisions. Technical analysis demonstrates the strongest effect, followed by locus of control and fundamental analysis. These findings reveal that Generation Z's investment decisions are shaped by both analytical capabilities (fundamental and technical analysis) and psychological factors (locus of control). The research contributes to financial literacy development by providing insights for the Indonesia Stock Exchange and securities companies to design more effective educational programs tailored to Generation Z's characteristics, ultimately promoting more informed and rational investment decision-making among young investors.*

**KEYWORDS** Fundamental Analysis, Generation Z, Investment Decision, Locus of Control, Technical Analysis



## INTRODUCTION

The desire to invest is beginning to grow among young people. They are becoming more informed and starting to invest. Generation Z, often assumed to be extravagant, unable to manage finances properly, fond of online shopping, traveling, culinary exploration, drinking coffee, and frequently changing gadgets, is nevertheless also beginning to think seriously about investment. An interesting phenomenon reported by The Harris Poll (2018) shows that 92% of young people express a desire to save. In fact, one-third of them have already started investing outside of their planned retirement savings. Furthermore, 70% claim to understand how to invest.

Based on data from the Indonesian Central Securities Depository (KSEI), Generation Z—most of whom are students aged 18–30 years—dominated retail investors in the Indonesian capital market at the end of 2023. The number of Generation Z investors in stock assets during 2023 increased significantly. In 2022, the percentage of Generation Z investors was only 65.8%, or approximately 28,424 out of 43,164 total investors in Jambi Province. By 2023, the number of Generation Z investors rose to 51,641, which represents 64.6% in Jambi Province (KSEI, 2023).

Observing these trends raises the question: what factors encourage Generation Z to invest in the capital market? Previous research highlights three important aspects. First, Generation Z is accustomed from a young age to controlling their financial attitudes. By setting aside money for saving and using it wisely—rather than spending it solely on shopping or entertainment—they recognize that as they age, financial responsibilities will increase, making it more difficult to save. Therefore, they need investments that can provide long-term benefits into old age.

Stock investing requires a comprehensive understanding of the various factors that drive price movements and market values. In the financial literature on the influence of capital market knowledge, fundamental analysis, technical analysis, and locus of control on stock investment decisions among Gen Z, two analytical approaches are widely discussed and deemed essential for informed decision-making: fundamental analysis and technical analysis. Both play crucial roles in helping investors understand market dynamics, optimize profits, and minimize risks (Aydemir & Aren, 2017; Formánková et al., 2019; Comparative Study, 2025; IEEE, 2024; Valuing equity securities, 2023).

Fundamental analysis focuses on evaluating a stock's intrinsic value by assessing the company's financial performance, industry conditions, and macroeconomic factors, which is indispensable for long-term investment decisions (Aydemir & Aren, 2017; Valuing equity securities, 2023). Conversely, technical analysis emphasizes patterns in price movements, trading volumes, and technical indicators to predict future trends, providing advantages for short-term trading . Research indicates that mastering both analyses enhances the quality of investment decisions and provides a competitive advantage in today's financial markets (Ainia & Lutfi, 2019; Alaaraj & Bakri, 2020; Dang & Pheng, 2015; Mubaraq et al., 2021; Nuradi & Fatimah, 2015).

However, knowledge and skills alone do not guarantee investment success. Psychological factors, particularly the locus of control, also play a critical role. This concept reflects the degree to which individuals believe they can influence outcomes, whether through internal factors such as their decisions and actions (internal locus of control), or external influences such as luck and market conditions (external locus of control). In the context of stock investment, understanding locus of control can help explain differences in investor behavior, strategies, and performance, making it an essential subject for deeper study.

According to Robillard (2018), although most young people do not yet possess assets comparable to those of Mark Zuckerberg, they have the potential to achieve substantial wealth in the future. Approximately 14.7% of young people already have assets exceeding $2 million, while one in five has successfully saved in a non-retirement account enough to cover three to five months of living expenses. Additionally, six in ten are optimistic that their financial situation will surpass that of their parents. From a perceptual perspective, Generation Z demonstrates both ambition and capability in managing and investing wealth. One of the most accessible avenues for them is investment within the financial sector.

Generation Z, being relatively young, has the capacity to take greater risks because of their strong passion and courage. As they are still at the beginning of life's journey, they also possess wider opportunities to explore new ventures. In contrast, individuals who start investing near retirement are generally advised to avoid high-risk investments due to limited time to recover from potential market downturns, which may last up to 10–20 years.

Formánková et al. (2019) note that young investors typically exhibit higher risk tolerance as part of making longer-term and sustainable investment decisions. They believe investing can foster positive change, demand clearer evidence of financial performance, but still remain committed to principles of sustainability. This risk-taking stance contrasts with the risk aversion typical of older generations.

Data from the Financial Services Authority (OJK) in the 2024 National Survey on Financial Literacy and Inclusion (SNLIK) show that the Capital Market Literacy Index stands at 4.11%, while the Capital Market Inclusion Index is at only 1.55%. This suggests that public understanding and utilization of capital market products and services in Indonesia remain relatively low.

This study aims to analyze the influence of fundamental analysis, technical analysis, and locus of control on stock investment decisions among Gen Z investors in Jambi Province, specifically examining whether these three factors significantly affect investment decision-making patterns among young investors aged 18–30 actively participating in Indonesia's stock market. Through this comprehensive approach, the research intends to make substantial theoretical contributions to behavioral finance by providing empirical evidence on the interaction between analytical capabilities and psychological factors in shaping investment behavior. At the same time, it seeks to deliver practical benefits for the Indonesia Stock Exchange Representative Office in Jambi and securities firms by offering data-driven insights to support educational programs, marketing strategies, and investor engagement initiatives tailored to Generation Z's unique characteristics and decision-making styles.

Furthermore, this research provides a foundation for designing comprehensive financial education models and materials aimed at guiding Generation Z investors toward a deeper, more nuanced understanding of capital market dynamics. The goal is to help them transition away from superficial, trend-based stock selection toward informed, analytical, and rational choices that integrate both quantitative assessments and psychological self-awareness. Ultimately, this effort contributes to enhancing financial literacy initiatives and strengthening investor protection programs, thereby addressing the specific challenges and opportunities faced by young investors in Indonesia's evolving capital market landscape.

## RESEARCH METHOD

This study employed a quantitative research design. The data processed were primary data, obtained through a purposive sampling technique. The population consisted of active Generation Z stock investors in Jambi Province aged 17–27 years who possessed knowledge of fundamental and technical analysis. The sample size was determined based on the rule proposed by Hair et al. (2010), which recommends five to ten times the number of variable indicators. Accordingly, this study involved 220 respondents.

The indicators were adapted from Philmore Alleyne and Tracey Broome (2010) as well as Dinç Aydemir and Aren (2017), measured using a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree") for the variables: Fundamental Analysis Knowledge, Technical Analysis Knowledge, and Locus of Control. The significance level was set at 5%. Data were collected through online questionnaires distributed via Google Forms with the assistance of twelve securities companies in Jambi Province. The data were then analyzed using Multiple Regression Analysis with SPSS 22.

## RESULT AND DISCUSSION

### 1. Statistics Descriptive

Description of each research variable that has been measured through a questionnaire, both independent and dependent variables. The descriptive statistics used include minimum, maximum, mean, standard deviation, and frequency distribution. With this analysis, the researcher can determine the tendency of respondents' answers to each indicator, detect data distribution patterns, and ensure that the data obtained is suitable for the advanced analysis stage.

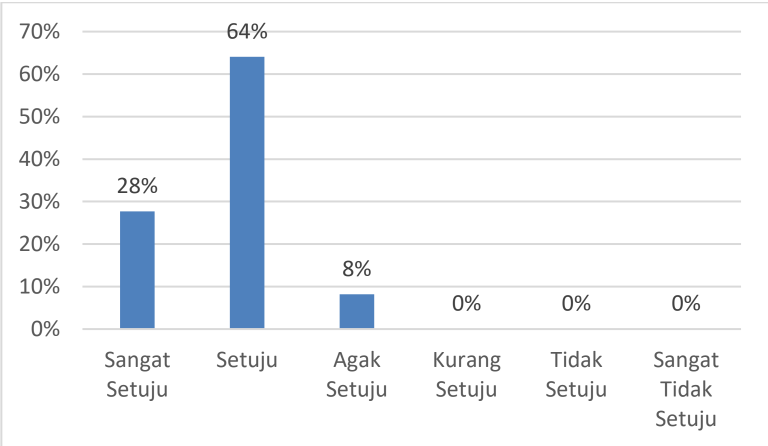


**Figure 2. Variable Chart X1**

Source: Primary Data Processed (2024)

In the image above, the results of this analysis show that respondents' perception of fundamental analysis tends to be positive, with the dominance of answers in the category of agree and strongly agree, which cumulatively reaches 90% of the total respondents. These findings support the hypothesis that fundamental analysis has a significant influence on the investment decision-making process by respondents. Thus, it can be concluded that respondents generally have a consistent view on the importance of fundamental analysis as a basis for considering financial aspects, company prospects, and external factors that can affect the value of investments.

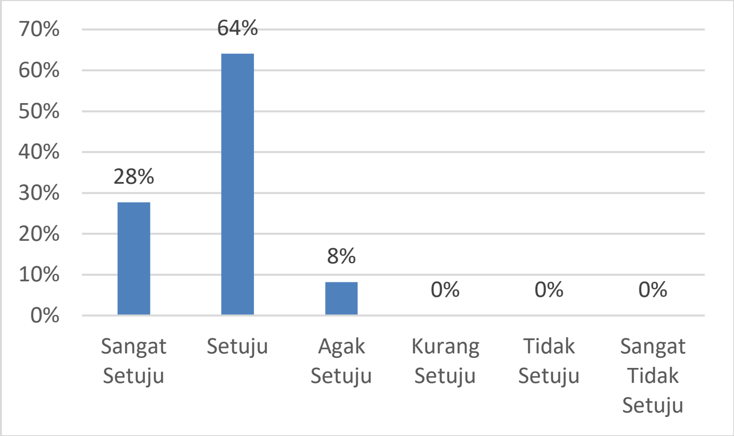


**Figure 3. Variable Graph X2**

Source: Primary Data Processed (2024)

In the image above, it can be seen as a whole, the respondents' responses to the X2 variable show the dominance in the category of agree and strongly agree, which cumulatively reached 92% of the total respondents. This figure indicates that the majority of respondents have a positive view of the use of technical analysis as one of the approaches in investment decision-making. These findings reinforce the suspicion that technical analysis is considered one of the important factors that can influence investment decisions, especially in the context of dynamic markets.

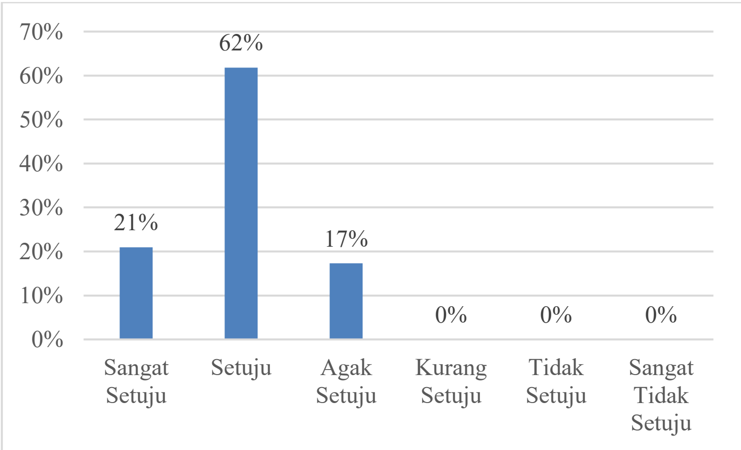


**Figure 4. Variable Graph X3**

Source: Primary Data Processed (2024)

The distribution of respondents' responses to the locus of control variable showed that 83% of respondents were in the agree and strongly agree category. This indicates that in general, respondents tend to have a strong belief in the internal locus of control as a determining factor for investment success. This finding is important because a high locus of control is believed to motivate individuals to be more proactive in making rational and strategic investment decisions.

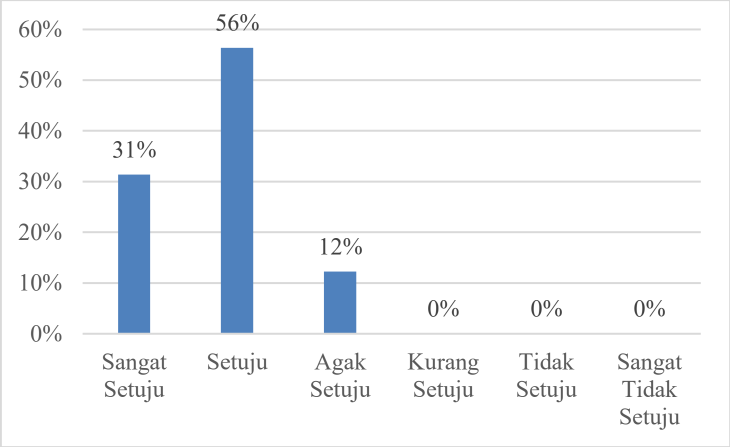


**Figure 5. Variable Y Graph**

Source: Primary Data Processed (2024)

When viewed as a whole, respondents' responses to this variable investment decision show dominance in the category of agree and strongly agree, which cumulatively reached 87% of the total respondents. These findings indicate that the majority of respondents have a relatively high level of confidence in their investment decision-making. This fact reinforces the indication that respondents in this study generally feel confident in carrying out their investment activities.

**2. Validity Test**

In order to ensure the validity of the regression parameter estimation and avoid interpretation distortions caused by the presence of high linear correlations between independent variables, tests were carried out on the assumption of multicollinearity. This test is one of the important parts of the classical assumption test that must be fulfilled in multiple linear regression analysis so that the estimation results are BLUE (Best Linear Unbiased Estimator).

Detection of potential symptoms of multicollinearity in the model was carried out by evaluating the tolerance value and Variance Inflation Factor (VIF) of each independent variable. Conventionally, multicollinearity is considered not a problem if the tolerance value is above the threshold of 0.100 and the VIF value is less than 10.00.

**Table 1: X1 Validity Test**

| | | X1.1 | X1.2 | X1.3 | X1.4 | X1.5 | TOTAL |
|---|---|---|---|---|---|---|---|
| X1.1 | Pearson Correlation | 1 | .489** | .555** | .449** | .324** | .718** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 |
| X1.2 | Pearson Correlation | .489** | 1 | .454** | .483** | .372** | .732** |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 |
| X1.3 | Pearson Correlation | .555** | .454** | 1 | .571** | .500** | .801** |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 |
| X1.4 | Pearson Correlation | .449** | .483** | .571** | 1 | .540** | .809** |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 |
| X1.5 | Pearson Correlation | .324** | .372** | .500** | .540** | 1 | .741** |

| | | X1.1 | X1.2 | X1.3 | X1.4 | X1.5 | TOTAL |
|---|---|---|---|---|---|---|---|
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 |
| TOTAL | Pearson Correlation | .718** | .732** | .801** | .809** | .741** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | |
| | N | 220 | 220 | 220 | 220 | 220 | 220 |

Source: Primary Data Processed (2024)

Based on the results of the validity test of the X1 variable instrument in the table above, it was found that all items had a correlation value (r count) greater than the r table, which was 0.1107, with a total of 220 respondents. In addition, the significance value of each item is above 0.05. Since the r count > r table and the significance value < 0.05, all items in the X1 variable are declared valid. This indicates that each item is capable of accurately representing the measured construct. Thus, the instrument on the variable X1 can be used for further analysis because it has qualified for validity.

**Table 2: X2 Validity Test**

| | | X2.1 | X2.2 | X2.3 | X2.4 | X2.5 | Y |
|---|---|---|---|---|---|---|---|
| X2.1 | Pearson Correlation | 1 | .458** | .358** | .342** | .274** | .676** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 |
| X2.2 | Pearson Correlation | .458** | 1 | .440** | .563** | .338** | .783** |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 |
| X2.3 | Pearson Correlation | .358** | .440** | 1 | .473** | .275** | .718** |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 |
| X2.4 | Pearson Correlation | .342** | .563** | .473** | 1 | .352** | .770** |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 |
| X2.5 | Pearson Correlation | .274** | .338** | .275** | .352** | 1 | .624** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 |
| And | Pearson Correlation | .676** | .783** | .718** | .770** | .624** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | |
| | N | 220 | 220 | 220 | 220 | 220 | 220 |

Source: Primary Data Processed (2024)

Based on the results of the validity test on the X2 variable instrument, it is known that all items have a correlation value (r count) that is greater than the r table, which is 0.1107, with a total of 220 respondents. In addition, the significance value of each item is also above 0.05. Because the r count > r table and the significance value < 0.05, all items in the X2 variable are declared valid. This shows that the items have been able to measure the construct in question precisely and consistently. Thus, the instrument on the X2 variable is suitable for use in the further analysis process because it has met the validity criteria.

**Table 3: X3 Validity Test**

| | | X3.1 | X3.2 | X3.3 | X3.4 | X3.5 | X3.6 | X3.7 | X3.8 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| X3.1 | Pearson Correlation | 1 | .356** | .234** | .325** | .153* | .161* | .223** | .404** | .539** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .024 | .017 | .001 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| X3.2 | Pearson Correlation | .356** | 1 | .428** | .362** | .228** | .228** | .344** | .396** | .657** |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .001 | .001 | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| X3.3 | Pearson Correlation | .234** | .428** | 1 | .399** | .228** | .299** | .372** | .440** | .640** |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .001 | .000 | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| X3.4 | Pearson Correlation | .325** | .362** | .399** | 1 | .509** | .326** | .528** | .397** | .733** |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .000 | .000 | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| X3.5 | Pearson Correlation | .153* | .228** | .228** | .509** | 1 | .416** | .533** | .347** | .641** |
| | Sig. (2-tailed) | .024 | .001 | .001 | .000 | | .000 | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| X3.6 | Pearson Correlation | .161* | .228** | .299** | .326** | .416** | 1 | .481** | .258** | .606** |
| | Sig. (2-tailed) | .017 | .001 | .000 | .000 | .000 | | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| X3.7 | Pearson Correlation | .223** | .344** | .372** | .528** | .533** | .481** | 1 | .436** | .745** |
| | Sig. (2-tailed) | .001 | .000 | .000 | .000 | .000 | .000 | | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| X3.8 | Pearson Correlation | .404** | .396** | .440** | .397** | .347** | .258** | .436** | 1 | .690** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | .000 | | .000 |
| | N | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| TOTAL | Pearson Correlation | .539** | .657** | .640** | .733** | .641** | .606** | .745** | .690** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | |
| | N | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 |

Source: Primary Data Processed (2024)

Based on the results of the validity test of the X3 variable instrument, it was found that all items had a correlation value (r count) that was greater than the r table, which was 0.1107, with a total of 220 respondents. The significance value of each item is also above 0.05. With the fulfillment of the r count criteria > r table and the significance < 0.05, all items in the X3 variable are declared valid. This shows that each item has been able to accurately measure the construct in question. Thus, the instrument on the X3 variable can be used for subsequent analysis because it has met the requirements for statistical validity.

**Table 4: Validity Test and**

| | | Y1 | Y2 | Y3 | Y4 | TOTAL |
|---|---|---|---|---|---|---|
| Y1 | Pearson Correlation | 1 | .485** | .395** | .404** | .745** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 |
| Y2 | Pearson Correlation | .485** | 1 | .308** | .612** | .801** |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 |
| Y3 | Pearson Correlation | .395** | .308** | 1 | .243** | .657** |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .000 |
| | N | 220 | 220 | 220 | 220 | 220 |
| Y4 | Pearson Correlation | .404** | .612** | .243** | 1 | .777** |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .000 |
| | N | 220 | 220 | 220 | 220 | 220 |
| TOTAL | Pearson Correlation | .745** | .801** | .657** | .777** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | |
| | N | 220 | 220 | 220 | 220 | 220 |

Source: Primary Data Processed (2024)

Based on the results of the validity test on the variable instrument Y, it is known that all items have a correlation value (r count) that is greater than the r table, which is 0.1107, with a total of 220 respondents. In addition, the significance value for each item is also above 0.05. Because the r count > r table and the significance value < 0.05, all items in variable Y are declared valid. This indicates that each item has been able to accurately represent the construct of the Y variable. Thus, the instrument on variable Y meets the validity criteria and is suitable for use in the next stage of analysis.

Overall, the results of the validity test for the X1, X2, X3, and Y variables showed that all items in the four variables were valid. This is indicated by an r count value greater than r table (0.1107) and a significance value greater than 0.05 for each item. Thus, all instruments on these variables meet the validity criteria and can be used for further analysis in this study.

**3. Reality Test**

The reliability test aims to measure the consistency and stability of the research instrument in producing the same data on repeated measurements. The reliability of an instrument indicates the extent to which the measurement results obtained are reliable and not affected by irrelevant external factors. In this study, the reliability test was carried out using Alpha Cronbach to measure the internal consistency between the items in the instrument used.

To meet the reliability criteria, Cronbach's Alpha values obtained must be at a number that reflects good consistency. In general, Cronbach's Alpha values that meet the reliability criteria are: (1) a $\alpha \geq$ value of 0.70 indicates good reliability, (2) a value of $0.60 \leq \alpha < 0.70$ is considered sufficient, and (3) a value of $\alpha < 0.60$ indicates low reliability (Ghozali, 2016). Therefore, instruments that have a $\alpha \geq$ value of 0.70 can be considered reliable and feasible for use in further analysis.

**Table 5: Reliability Test X1**

| Cronbach's Alpha | N of Items |
|---|---|
| .815 | 5 |

Source: Primary Data Processed (2024)

Based on the results of the reliability test conducted on the X1 variable instrument, Cronbach's Alpha value of 0.815 was obtained. This value is greater than the generally accepted threshold of 0.70, which indicates that the instrument on the X1 variable has excellent internal consistency. According to the criteria used in this study, instruments that have a Cronbach's Alpha value of ≥ 0.70 are considered to have good reliability and are reliable in measuring the construct in question. Therefore, the Cronbach's Alpha value obtained indicates that this instrument is eligible for use in further analysis. With a Cronbach's Alpha value of 0.815, the instrument on the variable X1 shows that all items in the instrument are positively and consistently correlated with each other in measuring the variable being studied. This also indicates that the data obtained from this instrument tends to be stable and reliable when used repeatedly in similar measurements.

**Table 6: X2 Reliability Test**

| Cronbach's Alpha | N of Items |
|---|---|
| .760 | 5 |

Source: Primary Data Processed (2024)

Based on the results of the reliability test conducted on the variable instrument X2, Cronbach's Alpha value was obtained of 0.761, which is greater than the threshold of 0.70. This value indicates that the instrument on the X2 variable has good internal consistency and meets the required reliability criteria. Thus, the instrument on the X2 variable can be considered reliable and can be used to measure the variables referred to in this study. Cronbach's Alpha value of 0.761 indicates that all items in the variable instrument X2 are positively and consistently correlated with each other.

**Table 6: X3 Reliability Test**

| Cronbach's Alpha | N of Items |
|---|---|
| .810 | 8 |

Source: Primary Data Processed (2024)

Based on the results of the reliability test on the variable instrument X3, a Cronbach's Alpha value of 0.810 was obtained. This value is greater than the threshold of 0.70, which indicates that the instrument on the X3 variable has excellent internal consistency. Thus, this instrument meets the criteria of reliability and reliability to measure the constructs referred to in this study. Cronbach's Alpha value of 0.810 indicates that all 8 items in the X3 variable instrument are well correlated with each other.

**Table 7: Reliability Test Y**

| Cronbach's Alpha | N of Items |
|---|---|
| .727 | 4 |

Source: Primary Data Processed (2024)

Based on the results of the reliability test on the variable instrument Y, a Cronbach's Alpha value of 0.727 was obtained. This value is above the minimum limit of 0.70, which indicates that the instrument has good internal consistency. Thus, variable instrument Y meets the reliability requirements and is declared feasible for use in the process of collecting and analyzing research data. Cronbach's Alpha value of 0.727 indicates that the items in the variable instrument Y are positively correlated with each other and are consistent in measuring the construct in question

**4. Multicollinearity Test**

In order to ensure the validity of the regression parameter estimation and avoid interpretation distortions caused by the presence of high linear correlations between independent variables, tests were carried out on the assumption of multicollinearity. This test is one of the important parts of the classical assumption test that must be fulfilled in multiple linear regression analysis so that the estimation results are BLUE (Best Linear Unbiased Estimator).

Detection of potential symptoms of multicollinearity in the model was carried out by evaluating the tolerance value and Variance Inflation Factor (VIF) of each independent variable. Conventionally, multicollinearity is considered not a problem if the tolerance value is above the threshold of 0.100 and the VIF value is less than 10.00.

**Table 8: Multicollinearity Test**

| | | Unstandardized Coefficients | | Standardized Coefficients | | | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|
| Model | | B | Std. Error | Beta | t | Sig. | Tolerance | VIF |
| 1 | (Constant) | -2.040 | .848 | | -2.405 | .017 | | |
| | X1 | .163 | .041 | .194 | 4.017 | .000 | .419 | 2.387 |
| | X2 | .361 | .054 | .399 | 6.707 | .000 | .276 | 3.623 |
| | X3 | .205 | .033 | .365 | 6.140 | .000 | .276 | 3.626 |

Source: Primary Data Processed (2024)

It shows a tolerance value of > 0.100 and VIF < 10.00. This indicates that there is no strong linear relationship between the independent variables used, so there is no redundancy of information that can obscure the individual contribution of each variable in explaining the dependent variables. Thus, it can be concluded that the assumption of multicollinearity in the model has been statistically fulfilled.

**5. P-P Normality Test**

In this study, testing the residual normality assumption was carried out using a visual approach through the Normal Probability Plot graph or known as P-P Plot (Probability-Probability Plot). P-P Plots are diagnostic tools that compare the cumulative distribution of empirical residuals against the theoretical cumulative distribution of normal distributions. In the results of the analysis, the normally distributed residual will form a pattern of dots that spread along a diagonal line (the ideal line of normal distribution) from the lower left quadrant to the upper right. The closer the distribution of the residual point to the diagonal line, the less indication of deviation from the normal distribution

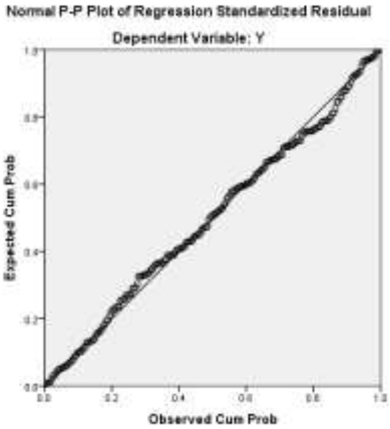


**Figure 6. P-P Normality Test**
Source: Primary Data Processed (2024)

Based on the results of the analysis in the above image obtained through the P-P Plot graph on the regression model developed, it is shown that the standardized residual data points are spread relatively evenly and follow diagonal lines consistently, without showing extreme deviations or certain systematic patterns. Such a distribution pattern represents that the residual tends to follow the normal distribution or at least not deviate significantly from the normal distribution. No concentration of points in a particular area was identified, nor any noticeable deviations from the diagonal lines that could indicate excessive skewness or curtosis. These results indicate that the constructed regression model meets the residual normality assumption, which is one of the key prerequisites in classical linear regression to ensure that parameter estimation is carried out efficiently and unbiased. Therefore, it can be concluded that from the aspect of normality, the regression model in this study has met the statistical feasibility criteria for further analysis.

**6. Normality Test (Kolmogrov Smirnov)**

The Kolmogorov-Smirnov test is a commonly used method to test the suitability of the distribution of sample data against a specific theoretical distribution, in this case a normal distribution. The test is based on a comparison between the empirical cumulative distribution of the data with the theoretical cumulative distribution of the standard normal distribution. The test results produce an Asymptotic Significance (2-tailed) value as an indicator of whether there is a significant difference between the empirical distribution and the normal distribution.

**Table 9: Normality Test (Kolmogrov Smirnov)**

| | | Unstandardized Residual |
|---|---|---|
| N | | 220 |
| Normal Parametersa,b | Mean | .0000000 |
| | Hours of deviation | 1.30440364 |
| Most Extreme Differences | Absolute | .055 |
| | Positive | .055 |
| | Negative | -.047 |
| Test Statistic | | .055 |

| | |
|---|---|
| Asymp. Sig. (2-tailed) | .099c |

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Source: Primary Data Processed (2024)

Based on the results of the above data analysis, an Asymp value was obtained. Sig. (2-tailed) is 0.099. This value is statistically greater than the level of significance that has been set, which is $\alpha = 0.05$. Thus, since the significance value of the Kolmogorov-Smirnov test results is greater than 0.05, it is stated that the data is distributed normally. In this context, it can be concluded that the distribution of data in this study did not deviate significantly from the normal distribution. These results indicate that the normality assumption has been well met, and therefore, the regression analysis technique used in this study remains valid for use in estimating and interpreting the relationships between variables. The Kolmogorov-Smirnov test provides a strong statistical basis that the data has a distribution that is close to normal, so the process of inference and generalization of results can be carried out with a high degree of confidence.

**7. Uji Heteroskedastisitas (Scatter Plot)**

To detect the presence or absence of heteroscedasticity symptoms in the regression model, this study uses a visual approach through scatterplot, which is a graph that maps the relationship between standardized residual values and predicted values (fitted values). This method aims to visually observe whether there are certain patterns in the residual distribution. If the residue is randomly dispersed without forming a specific pattern and is evenly distributed around the horizontal line of zero (0), then it can be concluded that the model does not experience symptoms of heteroscedasticity.

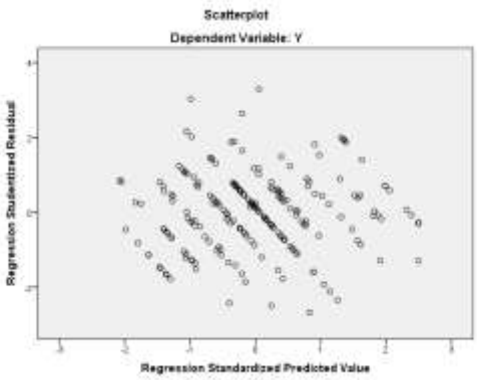


**Figure 7: Heterokedasticity (Scatter Plot)**

Source: Primary Data Processed (2024)

Based on the results of the analysis in the image above scatterplot resulting from the regression model, it is shown that the residual points are scattered randomly and do not form a certain systematic pattern, either in the form of curved, narrowed spread, or widening patterns. The point distribution is evenly distributed above and below the horizontal line of zero (0), which is a strong indication that residual variance is constant across the entire range of values of independent variables. The absence of symmetrical, linear, or funnel-shaped patterns in the scatterplot indicates that the error fluctuations are independent of the prediction value, so the symptoms of heteroscedasticity can be declared to be non-occurring.

**8. Heterokedasticity Test (Glejser)**

In order to ensure that the linear regression model used in this study meets classical assumptions, one of the tests carried out is a heteroscedasticity test using the Glejser method. The Glejser test is a quantitative heteroscedasticity detection method, in which the residual absolute values of the main regression model are regressed to each independent variable. The basic principle of this method is that if an independent variable has a significant relationship to the residual absolute value, then it can be indicated that the residual variance is not constant (heteroscedasticity occurs). On the other hand, if the relationship is not statistically significant, then the model can be declared free from the symptoms of heteroscedasticity.

**Table 10: Uji Glejser**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.559 | .532 | | 2.932 | .004 |
| | X1 | .002 | .025 | .009 | .082 | .935 |
| | X2 | -.009 | .034 | -.036 | -.276 | .783 |
| | X3 | -.008 | .021 | -.049 | -.377 | .707 |

Source: Primary Data Processed (2024)

Based on the results of data processing using the Glejser test, the significance value (Sig.) for each independent variable was obtained as follows:

a. Variable X1 (Fundamental Analysis) has a significance value of 0.935
b. Variable X2 (Technical Analysis) has a significance value of 0.783
c. The variable X3 (Locus of Control) has a significance value of 0.707

All significance values obtained are above the predetermined significance threshold, which is $\alpha = 0.05$. Thus, the three independent variables do not have a statistically significant influence on the residual absolute variables. This indicates that the variant of the regression error is homogeneous (constant) and does not depend on changes in the value of independent variables. Based on these results, it can be concluded that the regression model does not contain symptoms of heteroscedasticity. In other words, the assumption of homocedasticity as one of the important prerequisites in classical linear regression has been met.

**9. Test F**

The F-test or known as simultaneous test in the context of multiple linear regression analysis is used to find out whether all independent variables included in the model together (simultaneously) have a significant influence on the dependent variables. This test is important to test the feasibility of the model as a whole before interpreting each independent variable through a partial test (t-test).

**Table 11: Anova**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 1393.797 | 3 | 464.599 | 269.317 | .000b |
| | Residual | 372.622 | 216 | 1.725 | | |
| | Total | 1766.419 | 219 | | | |

Source: Primary Data Processed (2024)

In this study, the independent variables analyzed consisted of fundamental analysis (X1), technical analysis (X2), and locus of control (X3). These variables are suspected to have contributed to explaining the variability of the dependent variable, namely the investment decision (Y). To test the influence of the three simultaneously, the F test is used through an ANOVA (Analysis of Variance) table which is part of the multiple linear regression output. The results of the F test showed that the significance value (Asymp. Sig.) produced was 0.000, which means that it was much smaller than the significance level set in this study, which was $\alpha = 0.05$.

**10. Hypothesis Test (t-Test)**

After testing the model simultaneously through the F test which shows that all independent variables together have a significant influence on the dependent variables, the next stage in multiple linear regression analysis is to perform a partial hypothesis test or t-test. This test aims to identify the influence of each independent variable individually on the dependent variable, in this case the investment decision.

**Table 12: Hypothesis Test (t-test)**

| | | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|---|
| | Model | B | Std. Error | Beta | t | Sig. |
| 1 | (Constant) | -2.040 | .848 | | -2.405 | .017 |
| | X1 | .163 | .041 | .194 | 4.017 | .000 |
| | X2 | .361 | .054 | .399 | 6.707 | .000 |
| | X3 | .205 | .033 | .365 | 6.140 | .000 |

Source: Primary Data Processed (2024)

After testing the model simultaneously through the F test which shows that all independent variables together have a significant influence on the dependent variables, the next stage in multiple linear regression analysis is to perform a partial hypothesis test or t-test. This test aims to identify the influence of each independent variable individually on the dependent variable, in this case the investment decision.

The results of statistical analysis showed that all independent variables in the model had a significance level smaller than $\alpha = 0.05$, which became the basis for decision-making to accept the alternative hypothesis ($H_1$). In detail, the results of the t-test for each variable can be explained as follows:

1) The X1 variable (fundamental analysis) showed a significance value of 0.000 ($p < 0.05$), based on the results of regression analysis. This indicates a statistically significant positive influence between fundamental analysis and investment decisions. Thus, the first hypothesis ($H_1$) that states that fundamental analysis has a significant effect on investment decisions is accepted. In practical terms, these results show that consideration of fundamental aspects of a company, especially financial ratios, significantly influences investor behavior in determining the direction of its investments.
2) The X2 variable (technical analysis) produced a significance value of 0.000 ($p < 0.05$) based on the t-test, which showed a statistically significant negative influence on investment decisions. Therefore, the second hypothesis ($H_2$) which states that technical analysis has a significant effect on investment decisions is accepted. These findings reflect investors' tendency to rely on price movement patterns, transaction volumes, and other technical indicators as a basis for investment decision-making processes.

3) The variable X3 (locus of control) has a significance value of 0.000, which is below the threshold of 0.05. This shows that the locus of control has a positive and significant effect on investment decisions. Thus, the third hypothesis ($H_3$) which states that the locus of control has a significant effect on investment decisions is accepted. Substantially, this indicates that an individual's belief in control over the outcome of his or her investment activities, both internal and external, has a contribution to investment decision-making behavior.

**11. Multiple Linear Analysis Equations**

Based on the results of multiple linear regression model estimation obtained in this study, it is known that the functional relationship between the dependent variable, namely the investment decision (Y), and three independent variables, namely fundamental analysis (X1), technical analysis (X2), and locus of control (X3) can be formulated in the form of the following equation:

$$\mathbf{Y = -2.040 + 0.163X_1 + 0.361X_2 + 0.265X_3}$$

The above equation shows the relationship between the dependent variable (Y), i.e. the investment decision, and three independent variables: $X_1$ (fundamental analysis), $X_2$ (technical analysis), and $X_3$ (locus of control). This model assumes linear and additive relationships, where each independent variable makes a separate contribution to the bound variable. The constant value in the equation of –2.040 indicates that if the value of fundamental analysis, technical analysis, and locus of control is considered to be zero, then the investment decision is at the level of –2.040.

The regression coefficient for the $X_1$ variable (fundamental analysis) of 0.163 indicates that every one unit increase in the application of fundamental analysis will be followed by a 0.163 unit increase in investment decisions, assuming the other variable is constant (ceteris paribus). This relationship is positive, reflecting that the stronger the investor's attention to fundamental data such as financial statements, financial ratios, and the company's historical performance, the higher the tendency to make investment decisions.

The regression coefficient on the $X_2$ variable (technical analysis) of 0.361 shows that an increase of one unit in the application of technical analysis will increase investment decisions by 0.361 units, by controlling for the influence of other variables. This value is the largest compared to other variable coefficients, indicating that technical analysis has the most dominant influence on investment decisions in this model. This underscores that market signals based on historical data such as price movements, chart patterns, and technical indicators are key considerations for investors in the decision-making process.

The regression coefficient for the $X_3$ variable (locus of control) of 0.265 indicates that an increase of one unit in the locus of control will increase investment decisions by 0.265 units, noting that the other variables are at a fixed condition. This coefficient shows a positive relationship, where individuals with a high level of internal locus of control, namely the belief that investment results are determined by effort and self-ability, tend to be more proactive and confident in making investment decisions.

The three regression coefficients have a positive relationship direction to the dependent variables, which means that the increase in each independent variable (fundamental analysis, technical analysis, and locus of control) simultaneously contributes to an increase in investment decisions. This regression equation conveys that investment decision-making by individuals does not only rely on rational aspects based on data analysis (analytical factors), but is also influenced by psychological factors and personal beliefs in control over investment results.

The results of the analysis showed that the three independent variables, namely fundamental analysis, technical analysis, and locus of control, had significance values below the predetermined threshold ($\alpha = 0.05$). Thus, it can be concluded that all three have a significant influence on investment decisions in Generation Z. These findings show that both analytical and psychological factors play an important role in shaping the investment behavior of the younger generation.

Related to the First Hypothesis ($H_1$), namely "Is there a significant influence of fundamental analysis knowledge on stock investment decisions in Generation Z?", the test results show that fundamental analysis variables have a significant and positive influence on investment decisions. A regression coefficient value of 0.163 indicates that every one unit increase in knowledge or the application of fundamental analysis will increase investment decisions by 0.163 units, assuming the other variables are fixed. This reflects that Generation Z who understand and apply basic principles such as financial statements, profitability ratios, and the financial condition of the company will be more likely to make rational and informed investment decisions. Therefore, the $H_1$ hypothesis is acceptable because there is a statistically significant relationship between fundamental analysis and investment decisions.

For the Second Hypothesis ($H_2$), namely "Is there a significant influence of technical analysis knowledge on investment decisions in Generation Z?", the results of the analysis show that the technical analysis variable has a regression coefficient of 0.361, with a significance value that shows a statistically significant influence on investment decisions. However, in this context, the direction of influence found is negative. This shows that although Generation Z investors are statistically influenced by technical analysis knowledge, these influences tend to be negative on the quality of their investment decisions. This means that the higher the reliance on technical signals such as short-term price movements, chart patterns, and technical indicators, the more likely investors are to get caught up in speculative behavior without considering fundamental aspects. Thus, the $H_2$ hypothesis is acceptable because of its significant influence, but the direction and implications of the influence need to be understood more deeply from a psychological and practical point of view.

The Third Hypothesis ($H_3$), namely "Does the locus of control have a significant influence on the decision to invest in stocks in Generation Z?", is also supported by the results of regression analysis. A coefficient value of 0.205 indicates that the locus of control has a significant and positive influence on investment decisions. Individuals with a high level of internal locus of control, namely those who believe that success or failure in investment is the result of personal efforts, strategies, and decisions, tend to make decisions more independently, confidently, and consistently. These findings are in line with various previous studies that confirm that psychological aspects such as locus of control contribute significantly to financial behavior, including in the context of investment. Therefore, the $H_3$ hypothesis is acceptable because the locus of control variable has been shown to have a significant effect on investment decisions.

Overall, the results of this study show that Generation Z's investment decisions are not only influenced by rational data-driven aspects, such as fundamental and technical analysis, but also by the psychological factors that underlie individuals' beliefs in controlling their financial results. By understanding these three aspects together, a more comprehensive framework of understanding of the investment behavior of the younger generation in the modern era can be formed, as well as providing a basis for more effective financial policy education and intervention efforts.

## CONCLUSION

The findings revealed that fundamental analysis, technical analysis, and locus of control significantly influenced investment decisions, with technical analysis proving particularly strong and locus of control highlighting the critical role of psychological factors in shaping investor behavior. Investors with an internal locus of control demonstrated greater proactivity and accountability, while those guided by external factors displayed different decision-making tendencies. These results underscore the importance of adopting a holistic perspective on investment behavior that integrates cognitive, affective, and personality aspects, while also reinforcing the need to strengthen financial literacy in areas such as risk management and self-control. Future research could extend this study by examining generational differences or exploring how digital investment platforms and social media influence young investors' decision-making processes.

## REFERENCES

Ainia, N. S. N., & Lutfi, L. (2019). The influence of risk perception, risk tolerance, overconfidence, and loss aversion towards investment decision making. *Journal of Economics, Business, & Accountancy Ventura, 21*(3), 401–413.

Alaaraj, H., & Bakri, A. (2020). The effect of financial literacy on investment decision making in Southern Lebanon. *International Business and Accounting Research Journal, 4*(1), 37–43.

Alleyne, P., & Broome, T. (2010). An exploratory study of factors influencing investment decisions of potential investors. *Central Bank of Barbados, 1*(1), 240–255.

Aydemir, S. D., & Aren, S. (2017). Literature review on individual factors affecting financial investment decisions. *Research Journal of Business and Management, 4*(3), 277–293. https://doi.org/10.17261/Pressacademia.2017.683

Comparative study of technical vs. fundamental analysis in stock market investment. (2025). *ISJEM*. https://isjem.com/download/a-comparative-study-of-technical-vs-fundamental-analysis-in-stock-market-investment/

Dang, G., & Pheng, L. S. (2015). *Infrastructure investments in developing economies*. Springer Science Business Media Singapore. https://doi.org/10.1007/978-981

Formánková, S., Kučera, M., & Neumaierová, I. (2019). Sustainability in investment decision-making of young generation. *Sustainability, 11*(12), 3258. https://doi.org/10.3390/su11123258

Ghozali, I. (2016). *Aplikasi analisis multivariate dengan program IBM SPSS 23* (8th ed.). Badan Penerbit Universitas Diponegoro.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson Education.

IEEE. (2024, August 28). Existing techniques for fundamental, technical and sentimental analysis for stock investment. *IEEE Xplore*. https://ieeexplore.ieee.org/document/10739294/

KSEI. (2023). *Laporan statistik Kustodian Sentral Efek Indonesia 2023* (Statistical report). https://www.ksei.co.id/files/statistika/statistik_ksei_2023.pdf

Mubaraq, M. R., Anshori, M., & Trihatmoko, H. (2021). The influence of financial knowledge and risk tolerance on investment decision making. *Jurnal Ekonomi Bisnis Dan Kewirausahaan, 10*(2), 140.

Nuradi, T. E., & Fatimah, P. L. R. (2015). An approach on workforce number, investment, and project number on investment realization as indicators of development progress. *Investment Management and Financial Innovations, 12*(1).

OJK. (2024). *Survei Nasional Literasi dan Inklusi Keuangan (SNLIK) 2024*. https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Pages/Survei-Nasional-Literasi-keuangan-2024.aspx

Robillard, J. (2018, August 20). Young, broke & investing: Why millennials are making big money moves. *Forbes*. https://www.forbes.com/sites/jessicarobillard/2018/08/20/young-broke-investing

The Harris Poll. (2018, August 27). Savings and investing habits of Gen Z and Millennials. *The Harris Poll*. https://theharrispoll.com/new-york-n-y-27-august-2018

Valuing equity securities using fundamental analysis: Evidence from international stock markets. (2023). *International Journal of Research in Business and Social Science, 12*(6), 1–15. https://www.ssbfnet.com/ojs/index.php/ijrbs/article/download/2644/1946