



## Research Article

# Self-control and grit: study on investors in the capital market

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### Abstract

The COVID-19 pandemic has impacted various sectors, especially the economy. Investment in the capital market can be a solution, but it takes perseverance and hard work to get consistent profits in the capital market. This study aims to determine the effect of self-control on grit in the capital market. This study uses a purposive sampling method with a sample of 190 individuals who have made transactions during the last six months in the beginner Stock Investor Community (ISP) Malang using a grit scale (Duckworth, 2007) and a shortened version of the short self-control scale (Tangney, 2004). The results of hypothesis testing indicate that the hypothesis is accepted, which means that self-control can affect the grit of investors in the Indonesian capital market. Finding variables with a more significant impact on grit research needs to be continuously investigated.

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## Introduction

The COVID-19 pandemic significantly impacted public health, education, social, cultural, psychological, sports, and religious (Wahyu & Sa'id, 2020). According to COVID-19's economic impact, there will be 0.56% more impoverished people in the world in 2020, including 1.3 million urban dwellers and 333.9 thousand rural residents. Additionally, 114,340 businesses have fired or laid off roughly 1,943,916 workers, representing 23% of the informal and 77% of the formal sectors (Ministry of Manpower, 2020). Workers were let off without severance compensation due to several recreation places being shuttered and construction operations ceasing (Meilianna and Purba, 2020).

When considered from an investor's perspective, the pandemic phenomenon presents the ideal chance to purchase shares because many stock sales have experienced price declines that have made them quite affordable (Phil, 2020). The Composite Stock Price Index (IHSG) value, which has dropped to 27.95% (OJK, 2020), demonstrates this. The JCI's drop to 27.95% represented both a setback to investors due to the loss in value and a chance for them to increase the value of their investment.

Investors must be relentless in their efforts to continuously learn, investigate, and consider all potential hazards while making investment decisions in the capital market. Grit, which is tenacity and drives to attain long-term goals set by the individual, is referred to as this persistence (Fannin et al., 2021; Jordan et al., 2019). According to research, grit predicts

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success in achieving difficult goals despite challenges, motivating people to strive tirelessly for years or even decades to attain the goal. (Duckworth and Gross, 2014) Grit is associated with professional success in various fields, including investment banking, painting, journalism, academia, medicine, and law (Fernández-Martín et al., 2020; Locke & Latham, 2013; Vallerand, Houlfort, & Forest, 2014; Wrzesniewski, 2012). People who are consistent with their interests and goals will persistently correct mistakes despite repeated failures.

For investors, perseverance can directly impact their financial preferences and investment choices (Bazley et al., 2021b). Therefore, according to Bazley et al. (2021a), grit can lessen the tendency of the disposition effect, allowing an investor with high grit to be more alert to investment losses. The disposition effect is the propensity for an investor to hang onto stocks when their price declines and sell them more quickly when their price rises (Hincapié-Salazar and Agudelo, 2020; Zahera and Bansal, 2019; Shefrin and Statman, 1985).

The psychology that underlies the grit mechanism is still the subject of much-undiscovered grit research. According to Duckworth and Gross (2014), self-control and grit are critical factors in determining an individual's success. According to Baumeister et al. (2007) and Tangney et al. (2018), self-control is the ability to modify behavior following ideals, values, morality, and societal expectations. Long-term academic success will benefit a person's ability to maintain self-control since they can avoid emotional disturbances impairing performance (Fisbach and Wooley, 2018; Tangney et al., 2004; Taylor et al., 2018). It demonstrates that exercising self-control is one strategy to prevent overspending in financial allocations in economics, finance, and investment (Supret and Pria, 2019; Pritazahara and Sriwidodo, 2015). According to Sekciska et al. (2020), self-control is positively connected with the propensity to invest but negatively correlated with the propensity to assume the investment risk.

Self-control and grit are the two elements that determine an individual's performance in a variety of facets of daily life, according to Duckworth and Gross (2014). Furthermore, Duckworth and Gross noted that grit and self-control are two concepts frequently used interchangeably. Studies on self-control and grit have been linked to tremendous academic success, particularly in the context of education and students (Luthans et al., 2019; Moffitt et al., 2011; Oriol et al., 2017; Sriram et al., 2018; Tough, 2012; Zettler, 2011), sports context (Tedesqui and Young, 2018), and healthy behavior (Marentes-Castillo et al., 2022).

Although both self-control and grit impact different areas, there has not been any research connecting the two in the context of investing and investors. Contrarily, when it comes to the investment phenomenon, people frequently deal with highly volatile price swings, forcing them to choose wisely (Bhowmik and Wang, 2020). Bazley et al. (2022) claim that grit affects investment choice. Investment choices also need to be made with self-control and after giving diverse factors significant thought (Berkman et al., 2017). This study intends to fill a knowledge gap on the role of self-control and grit in decision-making, particularly by investors.

### **Problem of Study**

The pandemic situation offers an ideal opportunity to buy shares, the declining selling price of shares increases the affordability for some investors. Investors should continue to strive to continue to research, investigate and consider all possible risks when making investment decisions in the capital market. Self-control and grit are two factors that determine a person's performance in various aspects of daily life. Although self-control and grit operate in different domains, there has been no research linking the two in an investment context. Very volatile price changes in investment, forcing them to choose wisely. Grit influences investment choices. Investment choices should also be made after self-examination and thorough consideration of various factors. This study aims to determine the effect of self-control on grit in the capital market?

## Method

### Research Model

The type of this research is non-experimental research and included in descriptive correlational research. The independent variable is self-control as a predictor of grit in Indonesian capital market investors.

### Participants

The participant in this study is a member of the beginner Stock Investor Community (ISP) Malang branch, which has 320 members and 190 respondents in the sample. Using the criterion of those who have made investment transactions in the previous six months, sampling was carried out using the purposive sampling technique.

**Table 1.** Demographic characteristics of the sample

| Information                  | Total (N=190)   |              |
|------------------------------|---|--------------|
|                              | Frequency   | Percentage   |
| <b>Gender</b>                | <i>Man</i>  | 115<br>60.5% |
|                              | <i>Woman</i>  | 75<br>39.5%  |
| <b>Age Group</b>             | <i>&lt;20</i>   | 22<br>11.6%  |
|                              | <i>21-30</i>  | 135<br>71.1% |
|                              | <i>31-40</i>  | 22<br>11.6%  |
|                              | <i>41-50</i>  | 11<br>5.8%   |
| <b>Level of education</b>    | <i>High School Equivalent</i>   | 88<br>46.3%  |
|                              | <i>Diploma</i>  | 13<br>6.8%   |
|                              | <i>S1</i>   | 82<br>43.2%  |
|                              | <i>S2</i>   | 7<br>3.7%    |
| <b>Work</b>                  | <i>Student</i>  | 70<br>36.8%  |
|                              | <i>Private sector employee</i>  | 66<br>34.7%  |
|                              | <i>Self-employed</i>  | 28<br>14.7%  |
|                              | <i>civil servant</i>  | 20<br>10.5%  |
|                              | <i>Housewife</i>  | 6<br>3.2%    |
| <b>Investment Instrument</b> | <i>Share</i>  | 62<br>32.6%  |
|                              | <i>Mutual Fund</i>  | 26<br>13.7%  |
|                              | <i>Stocks and Mutual Funds</i>  | 30<br>15.8%  |
|                              | <i>Stocks, Bonds, and Mutual Funds</i>                                      | 30<br>15.8%  |
|                              | <i>Stocks, Mutual Funds, Bonds, Cryptocurrencies, Forex, Binary Options</i> | 22<br>11.6%  |
|                              | <i>Forex</i>  | 20<br>10.5%  |
| <b>Transaction time</b>      | <i>&lt;1 Year</i>   | 49<br>25.8%  |
|                              | <i>1-2 Years</i>  | 81<br>42.6%  |
|                              | <i>3-4 Years</i>  | 43<br>22.6%  |
|                              | <i>5-6 Years</i>  | 17<br>8.9%   |

According to the descriptive analysis table, there are 190 responders across both variables. The grit variable ranges from a minimum of 12 to a maximum of 72. The standard deviation is ten, while the mean is 36. This also holds for the self-control factor.

### Research Instruments

The variables of this research are measured by Grit Scale to measure the level of member of ISP Malang branch's grit and the Self-Control Scale to measure the member's self-control.

### Grit Scale

The grit scale, created by Duckworth (2007), is used to gather data. It has 12 items total—6 positive and six negative—covering consistency of interest and perseverance. This scale has a reliability score of 0.706 and a validity range of 0.139 to 0.680.

### Self Control Scale

The brief version of the Tangney (2004) self-control scale has 13 items, including nine unfavorable items and four unfavorable items, measuring self-control, deliberate/non-impulsive, healthy behaviors, work ethics, and reliability. This scale has a reliability rating of 0.87 and a validity range of 0.318–0.763.

### Data Analysis

The back-to-back translation was used to adjust these scales (Brislin, 1970). Simple linear regression analysis was used to evaluate the hypothesis after the traditional assumptions of normality, linearity, and heteroscedasticity were examined. The next step was completed once the study's data had completed the traditional assumption test stage.

**Table 2.** Normality test

| Variable         | Significance | Information | Conclusion |
|------------------|--------------|-------------|------------|
| Grit(Y)          | 0.200        | $p > 0.05$  | Normal     |
| Self Control (X) | 0.200        | $p > 0.05$  | Normal     |

In the normality test using *one sample, Kolmogorov-Smirnov*, the significance value is less than 0.05, so the data on both variables are normally distributed.

**Table 3.** Linearity Test

| Information              | Significance | Information | Conclusion                                   |
|--------------------------|--------------|-------------|--|
| Deviation from Linearity | 0.192        | $p > 0.05$  | Have a Linear Relationship between Variables |

Based on table 6, the *deviation from the linearity* value is greater than the value of  $p > 0.05$ , meaning that there is a significant linear relationship between the self-control variables (X) and grit (Y).

**Table 4.** Heteroscedasticity test

| Glejser method   | Value Significance | Information | Conclusion              |
|------------------|--------------------|-------------|-------------------------|
| Self Control (X) | 0.952              | $p > 0.05$  | Heteroscedasticity Free |

Table 3's significance value was higher than 0.05, indicating that the data in this table do not exhibit any signs of heteroscedasticity when modeled using a regression technique.

## Results

More men than women make up the sample for this study's demographic features. Most people are in their prime working years and have SMA and S1 education levels that are nearly comparable. The most prevalent occupations are students and private employees, who frequently use investment instruments in the form of shares with a transaction term of more than a year. Table 4 provides a detailed breakdown of the research sample's demographic information.

**Table 5.** Descriptive analysis of research variables

| Variable         | N   | Min. | Max. | mean | Standard Deviation |
|------------------|-----|------|------|------|--------------------|
| Grit (Y)         | 190 | 12   | 72   | 36   | 10                 |
| Self Control (X) | 190 | 12   | 72   | 36   | 10                 |

Table 3 above indicates that no respondents have low grit; 59 respondents, or 31.1 percent, are in the medium category, and 131 respondents, or 68.9 percent, are in the high category. The following is the categorization of the grit variable based on hypothetical data. As shown in Table 4, only one respondent falls into the low group, while 97 respondents, or 51.1%, fall into the middle category, and 92 respondents, or 48.4%, fall into the high category.

**Table 6.** Simple Linear Regression Test Results

| Variable               | R    | R Square | Sig   | Information | Conclusion  |
|------------------------|------|----------|-------|-------------|-------------|
| Self-control over grit | ,560 | ,313     | 0.000 | $< 0.05$    | Ha Accepted |

According to Table 8, where a significant value of  $0.000 < 0.05$  was observed,  $H_0$  is disproved. Therefore, self-control is a predictor of grit for Indonesian investors in the capital markets. Additionally, it was discovered that the R square value was 0.313, indicating that self-control can influence grit by 31.3 percent, while other variables impact the remaining 8 percent.

### **Discussion and Conclusion**

The findings demonstrated that grit predicts investor self-control in the Indonesian capital market. According to research by Duckworth and Gross (2014, Sriram, 2018), self-control is closely related to grit in the context of education and students (Luthans et al., 2019, Moffitt et al., 2011, Oriol et al., 2017, Sriram, et al., 2018, Tough, 2012, and Zettler, 2011). It is also strongly related to grit in sports (Tedesqui and Young, 2018), as Investors' grit is influenced by their high level of self-control in the Indonesian capital market. People with solid self-control may resist temptations because they can manage their impulses when presented with difficulties and temptations (Willems et al., 2019). Additionally, persons with self-control are less impulsive and better at achieving long-term objectives, or what is known as grit, since they can control their impulses, behavior, emotions, and concentration. It indicates that most respondents can control and steer their behavioral tendencies to accomplish the predetermined goals.

Since entrepreneurs must work hard to overcome obstacles and failures to succeed, these two factors are significant in the economic setting (Foo et al., 2009). When there is severe market volatility, most respondents with high grit continue to manage their portfolios by undertaking fundamental and technical analysis for investors to be more cognizant of investment losses and favor selecting portfolios with higher profit values (Bazley et al., 2021a).

Understanding how they relate to higher- and lower-level goals is crucial (Eskreis-Winkler et al., 2016). Investors need to set and reach goals to succeed because they give human actions in daily life purpose (Lapierre et al., 2017). Lower-level goals are strengthened by self-control, which aids people in achieving short-term goals and objectives. In contrast, grit is linked to the most challenging and significant objectives (Duckworth and Gross, 2014). A factor in the development of the studied grit investors is self-control. For grit to develop, people need to be around others who have high standards and can help them reach their goals, which in this study is self-control (Ross & Nisbett, 2011). In order to create high-impact interventions, this study helps us better understand the psychological processes of self-control and grit in a sample of investors (Duckworth and Gross, 2014; Walton, 2014). The findings of this study are anticipated to be generative, which can suggest new lines of inquiry for both basic science and interventional research.

Based on the research and debate findings, it can be said that the study's hypothesis -that self-control influences investors' grit in the Indonesian capital market- is accepted.

### **Recommendations**

The following recommendations are offered to traders and investors: 1) exercise more self-control when making decisions to lessen the possibility of losses brought on by impulsive actions; 2) broaden knowledge, particularly concerning stocks or other investment instruments, through books, webinars, and training; 3) increase the accuracy of technical, fundamental, macro, and microeconomic analysis as well as other types of analysis; and 4) carry out evaluations. The three recommendations are meant to increase the likelihood of obtaining maximum and steady profits. Suggestions for future researchers to conduct research on different topics or expand the number of research respondents to boost the representative value. Finding variables with a more significant impact on grit research needs to be continuously investigated.

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