

STRATEGIES TO IMPROVE CAPITAL MARKET LITERACY IN NORTH MALUKU: FISHBONE DIAGRAM ANALYSIS

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Abstract

This study aims to determine the factors that cause low capital market literacy during good capital market conditions and determine how to overcome them. This research is qualitative descriptive research using the fishbone diagram method. Based on the results of the FGD and discussions to answer the problem, it can be concluded that the problems that can be used as a step to optimize capital market development strategies in Indonesia to increase capital market literacy include inadequate public perception due to Lack of literacy, Lack of knowledge of investment products, trust issues For investment products, Lack of in-depth studies/research related to the capital market, economic systems that have not supported, and Lack of regulation.

Keywords: Capital market literacy, fishbone diagram, educational strategy, Indonesia Stock Exchange

INTRODUCTION

The capital market has an essential role in the economy. The capital market has created Many new investment products (Blake & Cairns, 2021; Terovitis, 2020). Its function is as a means of business funding or a means for companies to get funds from investors and as a means for the public to invest in financial instruments. Investor growth in Indonesia is excellent at 7.4 million investors. An increase of 93% from 2020, and the majority are under 30 years old, which is 60%. Every investor has limited access and external constraints and is influenced by his behavior (Gonzalez-Igual et al., 2021).

Financial literacy and efficacy are needed to increase interest in investing in the capital market. Financial literacy refers to information, knowledge, and awareness about financial products and terms related to financial decision-making (Noor et al., 2020). Financial literacy can also strongly predict investment decisions (Hastings & Mitchell, 2020). Financial efficacy is a positive belief in the ability to manage finances. Financial efficacy can increase a person's financial confidence and self-control and can inhibit investment risk behavior (Liu & Zhang, 2021; Talwar et al., 2021)

However, public interest in Indonesia to invest is still relatively low, amounting to only about 0.15% of Indonesia's population, while Malaysia's population amounts to around 15%, Singapore 30%, and Australia 30%. According to research from the Financial Services Authority, the condition of the financial literacy level in Indonesia is still relatively low, only around 5%. The gap between the number of investors in Indonesia's western and eastern regions is enormous. Investors in Java Island, 69.8%, while in Maluku and Papua, 0.95%. Capital market socialization is still rare. Low financial literacy can lead to errors in choosing investment instruments (Bapna, 2019, Djaelani and Zainuddin, 2021).

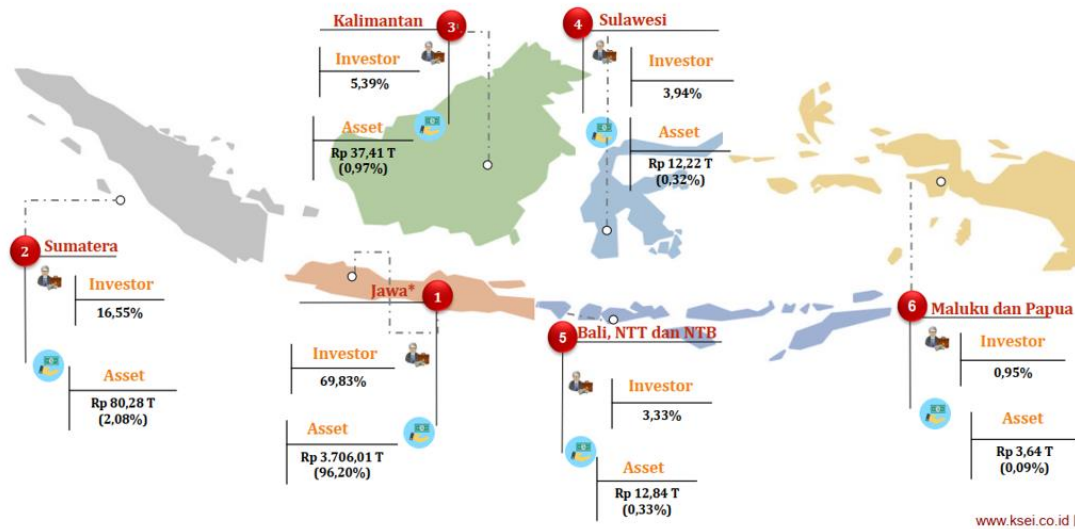


Figure 1: Distribution of Domestic Investors in Indonesia

The picture above shows a considerable difference between Java and non-Java regions. This can be affected by a lack of interest in investing. Kollenda (2021) states that someone will be interested in investing if they know the benefits. This is confirmed (Bapna, 2019) That one is interested in investing if one knows about the strength of the product, the characteristics of the product, and the characteristics of the market. Therefore, this research was conducted through research that has not been widely conducted in Indonesia, namely research aimed at exploring the factors causing low capital market literacy in North Maluku and outlining solutions and strategies to increase capital market literacy with *fishbone diagram analysis*.

The theory that can explain the relationship between attitude and one's behavior is *the Theory of Planned Behavior (TPB)*, a development of the *Theory of Reasoned Action (TRA)*. A person's behavior is determined by an intention which is a function of behavior toward objective norm behavior. This intention can predict a person's behavior very well and is a cognitive representation of a person's readiness to behave. This intention is determined by three things, namely behavior, subjective norms, and behavior control (Ajzen, 1991).

By adding this construct, namely *perceived behavioral control*, the form of the SDGs model appears in the following figure.

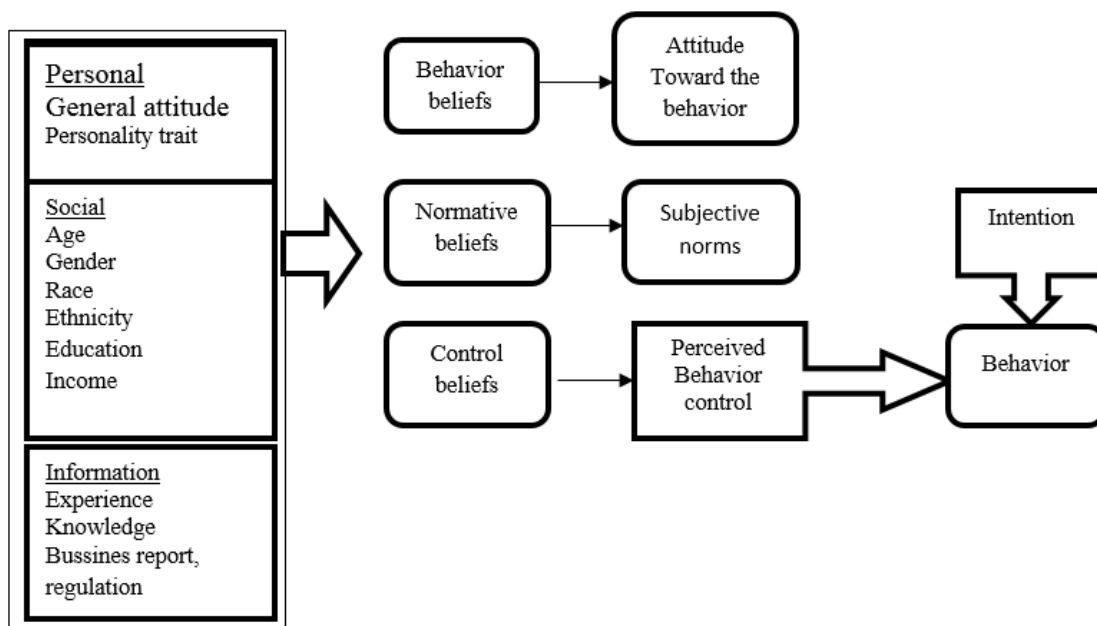


Figure 2: Model Theory of Planned Behavior

Source: Ajzen dan Manstead (2007)

METHODOLOGY

The method used in this study is qualitative descriptive. The data obtained from literature studies of journals are then discussed with Focus Group Discussion (FGD) analysis. FGDs are used to explore specific issues related to the topic discussed. FGD is used to conclude intersubjective meanings that are difficult to give meaning to themselves researchers because the researcher's subjectivity drive hinders them. After the FGD analysis, the ultrasound analysis or matrix is used (*Urgency, Seriousness, dan Growth*). In using the ultrasound matrix, a priority problem is determined; three factors must be considered. The three factors are urgency, seriousness, and growth. In reducing subjectivity in determining priority problems, it is necessary to establish criteria for each element of ultrasound. A score with a particular scale is used.

In this study, a scale score of 1-5 was used. The higher the urgency, seriousness, or growth level of the problem, the higher the score for each of these elements. Fishbone diagrams are used to show an impact or effect of a problem with various causes. Fishbone diagrams (*fishbone diagrams — because they look like fish bones*) are often also called Cause-and-Effect Diagrams or Ishikawa Diagrams, were introduced by Dr. Kaoru Ishikawa, a quality control expert from Japan, as one of the *seven essential quality tools*. Fishbone diagrams are used when we want to identify possible causes of problems and especially when a *team* tends to fall thinking on routine (Tague, 2005)

An action and improvement step will be easier to do if the problem and the root cause of the problem have been found. The benefits of *this fishbone diagram* can help us to find the root cause of the problem in a user-friendly manner; tools *that are user-friendly and preferred by people in the manufacturing industry where the process there is known to have a variety of variables that have the potential to cause problems* (Purba, 2008). The effect or effect is written as the muzzle of the head. At the same time, fish bones are filled by cause. This diagram also shows the relationship between cause and effect. In statistical process control, causal diagrams show the causal factors (cause) and quality characteristics (effect) caused by those factors. After knowing the factors causing low capital market literacy, a strategy was formulated to increase capital market financial literacy.

RESULTS AND DISCUSSION

We can make ultrasound analyses and *fishbone* diagrams after generating FGD activities from various journal sources. Ultrasound analysis using priority scales and *fishbone* diagrams is used to help show the cause and effect of a situation that eventually leads to a solution to a problem. The results of the ultrasound analysis appear in the table below:

Based on the results of the *Focus Group Discussion*, six problem indicators for optimizing capital market development include Lack of knowledge of capital market investment products, *trust issues* on products, Lack of regulation, unsupported economic system, wrong public perception of the capital market, and Lack of capital market studies/research. This condition is also reinforced by the ultrasound results as shown in Table 1 below:

Table 1: USG (Urgency, Seriousness, dan Growth)

| No | Problems | U | S | G | Total Score | Order of Precedence |
|----|---|---|---|---|-------------|---------------------|
| 1 | Lack of Knowledge of Capital Market Products | 5 | 4 | 4 | 13 | 2 |
| 2 | <i>Trust Issue</i> on capital market products | 4 | 4 | 4 | 12 | 3 |
| 3 | Lack of regulation | 3 | 2 | 1 | 6 | 6 |
| 4 | Unsupported economic system | 3 | 2 | 2 | 7 | 5 |
| 5 | Wrong public perception of the capital market | 5 | 5 | 5 | 15 | 1 |
| 6 | Lack of capital market studies/research | 3 | 3 | 3 | 9 | 4 |

Primary data processed, researchers 2023

Based on the table above, the total score on the wrong public perception of the capital market is 15 and ranks first; the Lack of knowledge of capital market investment products has a total score of 13 and ranks second. *Trust issues have a total score of 12 and rank third; Lack of capital market studies/research has a total score of 9 and occupies the fourth position; the unsupported economic system has a total score of 7 and ranks fifth; and the Lack of regulation with a total score of 6 occupies the sixth position.* Based on the results of the ultrasound analysis in Table 1, fishbone analysis is obtained as shown below:

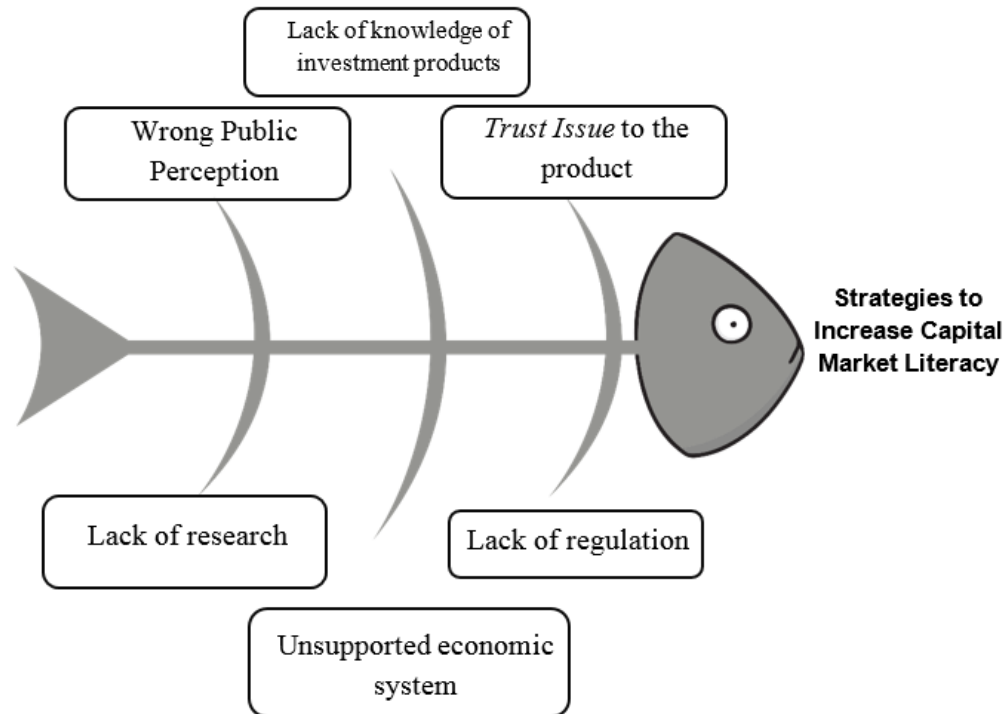


Figure 3: Fishbone Diagram

Thus, the priority order of problems that can be a reference in optimizing capital market development to increase capital market literacy is as follows:

1. People's misperception of the capital market

Lack of literacy is one of the causes of the emergence of assumption bias that negatively affects investment activities in the capital market. Therefore, as a regulatory party with authority related to the capital market, IDX needs to socialize or provide literacy to the public to increase public knowledge of the capital market. IDX socialization activities that have been carried out include providing capital market training in collaboration with several campuses in Indonesia and creating a capital market stock exchange corner/gallery. However, the movement has not reached the general public. Therefore, many people still do not understand the capital market. Here are some problems that arise related to the Lack of Islamic capital market literacy, along with a plan for work actions as a solution to these problems:

Table 2: Strategies to overcome public misperceptions about the capital market

| No | Problem | Solution |
|----|--|---|
| 1 | Lack of public interest in the capital market | Sharia capital market socialization related to the benefits and advantages of investing in the capital market. |
| 2 | Unavailability of adequate information related to the capital market. | Establishing a study corner/capital market community in each village is necessary. If necessary, a guidebook for investing in the capital market is made. |
| 3 | The capital market is still less popular, especially among the younger generation. | The need for capital market socialization through seminars, talk shows, and pamphlets to popularize the capital market. |
| 4 | There is an assumption that buying and selling in the capital market is gambling. | Socialization of technical knowledge of transactions in the capital market. |

Primary data processed, researchers 2023

2. Lack Of Knowledge Of Investment Products

Knowledge results from seeing, hearing, feeling, and thinking on which human beings are based and behaving and acting. Knowledge is obtained from information known by someone. Knowledge is divided into declarative knowledge and procedure knowledge. Declarative knowledge is a subjective fact known to a person. The subjective meaning here is that a person's knowledge does not always have to correspond to actual reality. In contrast, procedural knowledge is knowledge of how the facts are used. Public knowledge of capital market investment products is one of the development strategies that must be improved so that people begin to be literate about investment products in the capital market.

One of the factors that people do not know about the Islamic capital market is the discovery of public knowledge that is still lacking; even capital market players who are still considered beginners are only known about stocks, that is, other capital market products such as mutual funds and bonds are not well known. This is due to the Lack of socialization related to the capital market and its products.

Capital market investment literacy is needed that can be obtained by the community that is directly related to daily life. *The go stock saving game*, which is a response from the Indonesia Stock Exchange in increasing literacy, can increase user literacy related to trading systems, transaction hours, portfolio information, and several other information so that the *game* can be used as a medium to increase investment literacy in the community, especially among millennials.

Table 3: Strategies to Overcome Lack of Knowledge about Capital Market Products

| No | Problem | Solution |
|----|--------------------------|---|
| 1 | Lack of public knowledge | <ul style="list-style-type: none"> – Socialization of the capital market and its products through seminars, workshops, and mentoring programs. – Creating literacy improvement products that are directly related to daily life can be accessed directly by the community quickly. – Improve the quality of education – at the high school / vocational level and university level to create human resources who understand investment in the capital market. |

Primary data processed, researchers 2023

3. Trust Issues Against Capital Market Products

Trust is a psychological area of concern for accepting what it is based on expectations of good behavior from others. *Trust* in the capital market context is a form of investor confidence that the capital market is run using the principles of fairness. Koufaris and Sosa (2002:1) define *trust* as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party." Thus *trust* can be interpreted as confidence that investors as capital owners will find what they want in the investment manager. *In addition*, trust is a determining factor of loyalty because building *trust* will have a sustainable impact on investors and potential investors to remain committed to investing in the capital market. Investors will likely move their funds elsewhere if this trust is not built. For this reason, the Islamic capital market must be able to convince investors and potential investors because trust is a determining factor in maintaining stability and collaboration to build and maintain long-term relationships. Here are some problems regarding *trusts* in the capital market along with the Work Action Plan that is the solution:

Table 4: Strategies to Overcome Trust Issues in Capital Market Products

| No | Problem | Solution |
|----|--|--|
| 1 | There are concerns that investment in the capital market is prone to fraud. | Education related to regulation and safety of investment in the capital market. Creating a trilogy of OJK policies regarding inclusion, literacy, and consumer protection. |
| 2 | There is an assumption that capital market investment is only for rich people. | Educate the program to save shares thoroughly to each region. To introduce that anyone can invest in the capital market by saving in installments per lot. |
| 3 | Lack of public interest in investing. | Conducting investment literacy seminars to encourage people to invest. |
| 4 | Public trust in capital market managers has not yet been formed. | Bring up the data transparency needed for potential investors. |

Primary data processed, researchers 2023

4. Lack of research on the capital market

Lack of research on the capital market is a severe problem that can hinder the development of the capital market and public understanding of investment. Some of the problems associated with the Lack of research on the capital market are as follows:

Table 5: Strategies to Overcome Lack of Research on the Capital Market

| No | Problem | Solution |
|----|--|---|
| 1 | Lack of research on the capital market | <ul style="list-style-type: none"> – Governments and capital market regulators can provide financial support and incentives for research institutions, universities, and academics to research capital markets. This will encourage the creation of more quality studies and research. – Collaboration between research institutions, financial institutions, and investment firms can help provide relevant data and market insights for research. – Incentivizing colleges and faculties to research capital markets and investment will increase interest in and participation in this research. – Encouraging collaborative research between research institutions, universities, and the financial industry will facilitate the exchange of knowledge and experience. – Conduct a strong and sustainable capital market literacy campaign to increase public awareness and interest in intelligent investments. |

Primary data processed, researchers 2023

5. The Economic System Has Not Supported

The democratic economic system adopted by Indonesia, which refers to the philosophy of Pancasila and the 1945 Constitution, is also the reality that occurs in the field of this system mostly leads to liberal / capitalism, resulting in overlaps in its implementation. Many phenomena illustrate that capitalism is still developing in Indonesia. Free market competition and trade monopolies are problems that prove that the economic system adopted by Indonesia has not fully provided welfare for the nation resulting in a weakening economic growth rate. One way to increase sustainable economic growth is to require substantial financing. Here are some problems related to economic system problems that have not supported by the Work Action Plan that is the solution:

Table 6: Strategies to Overcome Economic Systems That Have Not Supported

| No | Problem | Solution |
|----|------------------------------------|--|
| 1 | Indonesia's economic system | <ul style="list-style-type: none"> – Build and develop an economic system with values and norms that can be accounted for. – Improving the quality of Human Resources (HR) with a focus on education and socialization movements that are carried out optimally and appropriately. |
| 2 | Business Ethics in Capital Markets | Implementing and managing investments using ethical and social criteria to manage investment portfolios. |

Primary data processed, researchers 2023

6. Lack of Regulation

The role of the regulatory system in the Capital Market is essential because, in its implementation practice and development, there is often fraud or fraud in the capital market. This requires legal certainty related to all components of the capital market itself that can eliminate the possibility of misappropriation occurring. Issues that arise related to Sharia capital market regulation in Indonesia include:

1. There is no clear separation between the Islamic and conventional capital markets.
2. There is no regulation on the equality of Islamic capital markets with conventional capital markets.
3. Regulations regarding product clarity so that many Sharia products are replicates of conventional products
4. Regulations related to *Margin Trading in the secondary market*
5. There is no harmonization between DSN's fatwa and other regulations

Solutions to Overcome the Lack of Capital Market Regulation:

1. Strengthen the role of capital market supervisory authorities to enforce clear and strict rules and regulations and supervise their implementation strictly.
2. Encourage transparency in exchange-listed companies' financial and operational reporting, and require them to disclose information relevant to investors.
3. Educate investors about the risks and rules in the capital market so that they can make intelligent and informed investment decisions.
4. Ensure clear laws and legal protection mechanisms are in place for investors who feel aggrieved by violations or fraud.
5. Involve the financial industry, such as securities firms and financial institutions, in the regulatory formulation process to ensure the involvement of key stakeholders.
6. Conduct periodic reviews of existing regulations to ensure their relevance and effectiveness in facing dynamic capital market developments.
7. Review and adopt best regulatory practices from other countries successfully managing their capital markets.
8. Ensure regulators have adequate, trained, and qualified human resources to carry out supervisory duties effectively.
9. Use technology to monitor capital market activity in real-time and detect potential violations or manipulations.

By implementing the above solutions, the capital market can become more organized, transparent, and safe for investors. Adequate regulation will help increase public confidence in capital markets and contribute to sustainable economic growth.

CONCLUSION, LIMITATION, AND SUGGESTION

Based on the results of the FGD and discussions to answer the problem, it can be concluded that the problems that can be used as a step to optimize capital market development strategies in Indonesia to increase capital market literacy include: a) inadequate public perception due to Lack of literacy, b) lack of knowledge of sharia investment products c) *trust issues* For investment products, d) lack of in-depth studies/research related to the capital market, e) economic systems that have not supported, and f) lack of regulation.

From these problems, a solution can be determined so that optimization of capital market development to increase capital market literacy can be carried out. Related to inadequate public perception, socialization activities can also be carried out through seminars ranging from secondary/vocational to university levels. The Lack of public knowledge about Sharia investment products can be carried out through socialization activities and create literacy products that are directly related to people's daily lives. *Trust Issues* on capital market investment products can be done by education related to regulations and raising data transparency. The Lack of in-depth studies/research related to the capital market can be done by conducting collaborative research between research institutions with financial institutions and investment companies that can add relevant insights to research. An economic system that has not yet been supported, Indonesia can build and develop an economic system with values and norms that can be accounted for and formulate a whole and sustainable range of economic concepts for the community. The Lack of regulation can be done by involving the financial industry, such as securities companies and financial institutions, in formulating regulations to ensure the involvement of key stakeholders.

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References

1. Aisa, N. N. (2021). Do Financial Literacy and Technology Affect Intention to Invest in the Capital Market in the Early Pandemic Period? *Journal of Accounting and Investment*, 23(1), 49–65. <https://doi.org/10.18196/jai.v23i1.12517>
2. Ajzen, I. (1991). The Theory Of Planned Behavior. *Organizational Behavior and Human Decision Processes*. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
3. Ariyanto, D., Andayani, G. A. P. W., & Putri, I. G. A. M. A. D. (2020). Influence of justice, culture, and love of money towards ethical perception on tax evasion with gender as moderating variable. *Journal of Money Laundering Control*, 23(1), 245–266. <https://doi.org/10.1108/JMLC-06-2019-0047>
4. Bapna, S. (2019). Complementarity of Signals in Early-Stage Equity Investment Decisions: Evidence from a Randomized Field Experiment. *Management Science*, 65(2), 1–20. <https://doi.org/10.1287/mnsc.2017.2833>
5. Blake, D., & Cairns, A. J. G. (2021). Longevity risk and capital markets: The 2019-20 update. *Insurance: Mathematics and Economics*, 99, 395–439. <https://doi.org/10.1016/j.insmatheco.2021.04.001>

6. Gonzalez-Igual, M., Corzo Santamaria, T., & Rua Vieites, A. (2021). Impact of education, age, and gender on investor's sentiment: A survey of practitioners. *Heliyon*, 7(3), 1–11. <https://doi.org/10.1016/j.heliyon.2021.e06495>
7. Gusni, Komariah, S., & Yusuf, S. (2020). Capital Market Literacy and Students Investment Decisions. *Journal of Applied Business Administration, Maret*, 1–8. <https://jurnal.polibatam.ac.id>
8. Hastings, J., & Mitchell, O. S. (2020). How financial literacy and impatience shape retirement wealth and investment behaviors. *Journal of Pension Economics and Finance*, 19(1), 1–20. <https://doi.org/10.1017/S1474747218000227>
9. Djaelani, Yustiana and Zainuddin, Z. (2021). Experimental Study: Financial Literacy and Financial Efficacy of Interest in Investing. *ATESTASI: Jurnal Ilmiah Akuntansi*, 4(2), 352-364. DOI: <https://doi.org/10.57178/atestasi.v4i2.275>
10. Kollenda, P. (2021). Financial returns or social impact? What motivates impact investors' lending to firms in low-income countries? *Journal of Banking and Finance*, 106224, 1–27. <https://doi.org/10.1016/j.jbankfin.2021.106224>
11. Liu, L., & Zhang, H. (2021). Financial literacy, self-efficacy, and risky credit behavior among college students: Evidence from online consumer credit. *Journal of Behavioral and Experimental Finance*, 32(100569). <https://doi.org/10.1016/j.jbef.2021.100569>
12. Noor, N., Batool, I., & Arshad, H. M. (2020). Financial literacy, financial self-efficacy, and financial account ownership behavior in Pakistan. *Cogent Economics & Finance*, 8(1), 1–17. <https://doi.org/10.1080/23322039.2020.1806479>
13. Pangestika, T., & Rusliati, E. (2019). Literasi Dan Efikasi Keuangan Terhadap Minat Mahasiswa Berinvestasi Di Pasar Modal. *Jurnal Riset Bisnis Dan Manajemen*, 12(1), 37. <https://doi.org/10.23969/jrbm.v12i1.1524>
14. Prawesti, L., & Indrasari, A. (2016). Informasi Akuntansi dan Non Akuntansi Terhadap Initial Return Saham. *Jurnal Akuntansi Dan Investasi*, 1(1). <https://doi.org/10.22216/jbe.v1i1.932>
15. Purba, H. H. (2008). *Diagram fishbone dari Ishikawa*. <https://hardipurba.com/diagram-fishbone-ishikawa/>
16. Ramdhani, N. (2016). Penyusunan Alat Pengukur Berbasis Theory of Planned Behavior. *Buletin Psikologi*, 19(2), 55–69. <https://jurnal.ugm.ac.id/buletinpsikologi/article/view/11557>
17. Tague, N. R. (2005). *The Quality Toolbox*. ASQ Quality Press Milwaukee, Wisconsin.
18. Talwar, M., Talwar, S., Kaur, P., Tripathy, N., & Dhir, A. (2021). Has financial attitude impacted the trading activity of retail investors during the COVID-19 pandemic? *Journal of Retailing and Consumer Services*, 58(102341), 1–11. <https://doi.org/10.1016/j.jretconser.2020.102341>
19. Tang, T. L. P., & Chen, Y. J. (2008). Intelligence vs. wisdom: The love of money, Machiavellianism, and unethical behavior across college major and gender. *Journal of Business Ethics*, 82(1), 1–26. <https://doi.org/10.1007/s10551-007-9559-1>
20. Terovitis, S. (2020). Information disclosure and the feedback effect in capital markets. *Journal of Financial Intermediation*, 100897, 1–11. <https://doi.org/10.1016/j.jfi.2020.100897>
21. Yuniningsih, Y., & Santoso, B. (2020). Does Family Environment Moderate The Effect of Financial Literacy, Attitudes, and Motivation on Investment Interest? *Jurnal Ilmiah Akuntansi*, 3(2), 126–132.
22. Zulaikha, Z., & Hadiprajitno, P. T. B. (2016). Faktor-Faktor Yang Memengaruhi Procurement Fraud: Sebuah Kajian Dari Perspektif Persepsian Auditor Eksternal. *Jurnal Akuntansi Dan Keuangan Indonesia*, 13(2), 194–220. <https://doi.org/10.21002/jaki.2016.11>