

DOI: <https://doi.org/10.38035/dijefa.v5i2>

Received: 15 May 2024, Revised: 21 May 2024, Publish: 22 May 2024

<https://creativecommons.org/licenses/by/4.0/>

## The Behavioral Finance of MSME: Digital Finance, Managerial Biases, Financial Literacy

Asep Risman<sup>1</sup>

<sup>1</sup>Fakultas Ekonomi and Bisnis, Universitas Mercu Buana, Jakarta, Indonesia, Email: [asep.risman@mercubuana.ac.id](mailto:asep.risman@mercubuana.ac.id)

Corresponding Author: [asep.risman@mercubuana.ac.id](mailto:asep.risman@mercubuana.ac.id)

**Abstract:** This research aims to find empirical evidence of influence digital finance, managerial biases, and financial literacy on the MSMEs financial behavior. The population of this research is all MSMEs in DKI Jakarta. The sample used in this research was 200 respondents (MSME owners) from all 210 MSMEs who were willing to become respondents. Sampling was carried out using random techniques. Data collection was carried out by manually and online distributing questionnaires using Google Forms, and measured using a 5-point Likert scale. Data processing was carried out using Partial Least Square (PLS) software. The results of this research show that digital finance and financial literacy positively affect the MSMEs financial behavior. However, managerial biases does not affect the MSMEs financial behavior.

**Keyword:** Behavioral Finance of MSMEs, Digital Finance, Managerial Biases, Financial Literacy, Entrepreneurship

### INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) are an important part of the economy (Soelton et al., 2023; Endris & Kassegn, 2022; Lestari et al., 2022; Sindhwani et al., 2022; Rodrigues et al., 2021; Risman & Mustaffa (2022), Risman et al., 2023), because one of the reasons is that MSMEs, especially Micro & Small Enterprises (MSEs), are flexible for various types of business and do not require large amounts of capital, therefore MSEs also have different characteristics from other economic actors, especially large companies (corporations).

Based on financial management, the majority of MSMEs, especially MSEs, still take the form of personal financial management, although there are also those that have taken the form of organizations but are still informal. Therefore, MSME financial management has the characteristic of being a transition from personal finance to corporate finance. This is an interesting phenomenon for researchers, including research on financial behavior. Viewed from a personal finance perspective, the behavior finance of MSMEs can be influenced by the level of financial literacy, financial attitudes, financial experience, and also current developments related to technological advances such as digital finance and financial technology (fintech). Meanwhile, from the perspective of corporate financial behavior, the financial behavior of

MSMEs can be influenced by managerial biases, heuristic behavior, commitment escalation & persistence. Because the scope of MSME financial behavior is quite broad, covering personal financial behavior and corporate financial behavior, in this research we limit it to financial literacy as a factor in terms of personal financial behavior that influences MSME financial behavior, then digital finance as a current factors related to technological advances, and managerial biases as factors from the perspective of behavioral corporate finance.

Financial management of MSMEs, especially micro and small enterprises (MSEs), has unique characteristics in financial management because it is a transition from personal finance (household) to corporate finance. On one hand, MSMEs are business entities like any other business entity, thus approaching corporate financial management involving financing decisions and investment decisions. However, on the other hand, MSMEs' financial management is still privately managed by the business owners, similar to personal financial management, which includes income, spending, savings, investing, and protection or insurance (Risman et al., 2023).

The concept of financial behavior itself is a science that studies how humans behave in making financial decisions (Risman et al., 2021). Therefore, the financial management behavior of MSMEs can be interpreted as the decision-making behavior of MSMEs in managing their business activities, especially in financial decision-making, so the indicators of MSMEs' financial behavior may include the following:

- a. Financial Planning
- b. Funding Decisions (Capital Requirement)
- c. Investment Decisions (Budgeting)
- d. Financial Control

Digital finance is defined as financial services delivered through mobile phones, personal computers, the internet (PC Banking), mobile banking, electronic wallets (e-wallets), electronic money (e-money), as well as credit and debit cards. Digital finance began with digital payments, and the current development of digital finance is largely driven by the rapid growth of digital payments (Risman et al., 2021).

Digital payments are methods of payment conducted using digital technology, where all transactions occur electronically (via cards: credit, debit, electronic money) and online through computers and gadgets, thus eliminating the need for physical currency exchange.

Therefore, indicators that an entity has adopted digital finance in its business activities include:

1. Transactions can be conducted using mobile phones.
2. Transactions can be conducted using personal computers.
3. Transactions can be conducted online.
4. Transactions can be conducted using mobile banking.
5. Utilizing e-wallet facilities.
6. Utilizing mobile wallet facilities.
7. Payments can be made using credit cards.
8. Payments can be made using debit cards.

The implementation of digital finance in a business entity (business entity) will have a positive impact on improving performance through increased sales revenue, efficient and effective cash management and financial recording, as well as business operations. All of these demonstrate that digital finance has a positive influence on financial behavior, which becomes increasingly better.

According to Davis in the Technology Acceptance Model (TAM), the intention to use technology is influenced by the perception of its usefulness (benefits). The use of digital finance facilities will facilitate MSMEs in conducting financial transactions, thereby improving the financial management behavior of MSMEs through the use of digital finance technology. According to Ajzen in the Theory of Planned Behavior, behavioral changes occur due to

intention. The use of digital finance facilities represents the intention of MSMEs to improve their financial behavior to be more effective and efficient. Therefore, the higher the use of digital finance, the better the financial behavior of MSMEs.

This theory and reasoning are consistent with the empirical findings of previous research. Although some previous studies did not focus on digital finance and MSME financial behavior, several studies have shown that fintech payments have a positive effect on financial behavior (Huda & Risman, 2024; Erlangga & Krisnawati, 2020; Mukti et al., 2022), digital finance has a positive effect on transactions (Lahusa, 2023; Putri et al., 2022; Kamela et al., 2022). Therefore, the first hypothesis is as follows:

H1: Digital Finance has a positive effect on financial behavior of MSMEs

Although the management of MSMEs, especially MSEs, tends to be carried out by the business owners themselves, they are also managers, therefore MSME financial management can be influenced by managerial biases. Managerial biases are a manager's skill in making management decisions to solve business problems using quicker, practical methods. As person, in making financial decisions, financial decision making by a financial manager is also influenced psychologically. Entrepreneurs, especially those in micro and small enterprises (MSEs), are also managers who must make management decisions including financial management, including making financing decisions, and investment decisions.

Indicators of managerial biases can include overconfidence bias, anchoring bias, optimism bias, illusion of control bias, and herding as one of the sources of bias. Herding behavior in MSMEs, especially in making investment decisions, involves starting new businesses with a tendency to follow trends. These indicators encourage entrepreneurs (MSME managers) to easily make decisions, without doubt, without much consideration, so that MSME managers can quickly make decisions and capitalize on every opportunity, both in financing and in investment, by starting new businesses and products. Therefore, managerial biases have a positive influence on MSME financial behavior.

Study on managerial biases in MSMEs has not been conducted yet, but the influence of bias in investment decisions in the capital market has been widely studied and shows that bias has a positive influence on decision-making, including research on overconfidence bias (Adiputra, 2021; Rona & Sinarwati, 2021; Sihombing & Prameswary, 2023; Soraya et al., 2023), Herding (Caglayan et al., 2021; Rona & Sinarwati, 2021; Budiman & Patricia, 2021). Therefore, the second hypothesis is as follows:

H2: Managerial biases have a positive effect on the financial behavior of MSMEs.

Financial literacy is defined as "the knowledge, skills, and beliefs that influence attitudes and behaviors to improve the quality of decision-making and financial management to achieve financial well-being in society" (OJK, 2024). According to Zulfikri et al. (2020), indicators of financial literacy can include basic personal finance understanding, money management understanding, credit and debt management understanding, saving and investment.

Based on personal financial behavior, according to Ajzen in the Theory of Planned Behavior, behavioral changes occur due to intention. Therefore, efforts by MSMEs to improve financial literacy represent an intention to change the financial behavior of MSMEs. The higher the financial literacy of MSMEs, the higher the quality of MSME financial management, therefore financial literacy has a positive influence on MSME financial behavior.

This theory and reasoning align with previous research findings. Studies conducted by Rukamana & Azib (2021), Rahman & Risman (2021), Zikrillah et al. (2021), Nugraha et al. (2022), Haqiqi & Pertiwi (2022), Firdaus et al. (2022), and Rahayu et al. (2023) have proven that financial literacy has a positive impact on finance.

Based on the theoretical explanation and empirical findings above, hypothesis 3 can be formulated as follows:

H3: Financial literacy has a positive effect on the financial behavior of MSMEs

## METHOD

This research employs a quantitative method with a positivist paradigm. The research approach is conducted by understanding each variable and the relationship between variables based on quantitative measurement.

The population of this study is Micro, Small, and Medium Enterprises (MSMEs) in DKI Jakarta. According to the Central Bureau of Statistics (BPS) of DKI Jakarta, there were at least 1,100,000 MSMEs in the DKI Jakarta region in 2021. The sample size determination in this study is based on Slovin's formula as follows:

$$N = N / (1 + (N \times e^2))$$

Where:

n: Minimum sample size

N: Population size, which is 1,100,000 MSMEs

e: Margin of error, assumed to be 10%

Based on the Slovin's formula, the accepted sample size in this study is as follows:

$$n = (1.100.000) / (1 + (1.100.000 \times (0,1)^2))$$

$$n = 99,9998 \text{ which is rounded to } 100.$$

Based on this calculation, the minimum sample size in this study is 100 responses. However, we used more than 200 samples, and the number of respondents is 210 MSMEs in DKI Jakarta.

The data collection method involved distributing questionnaires using a 5-point Likert scale. The questionnaires were distributed both manually and online using Google Forms. Data collection was conducted directly by the researchers to ensure the respondents' privacy was well-maintained and to reduce any hesitation respondents might have in answering the questions. Data processing was performed using Partial Least Square (PLS) software.

We propose a research framework with the following conceptual model:

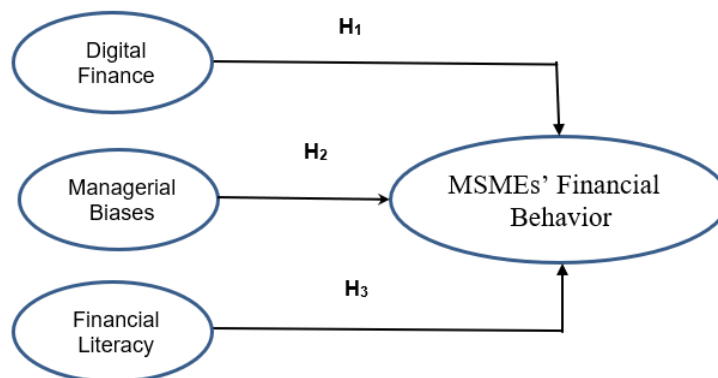
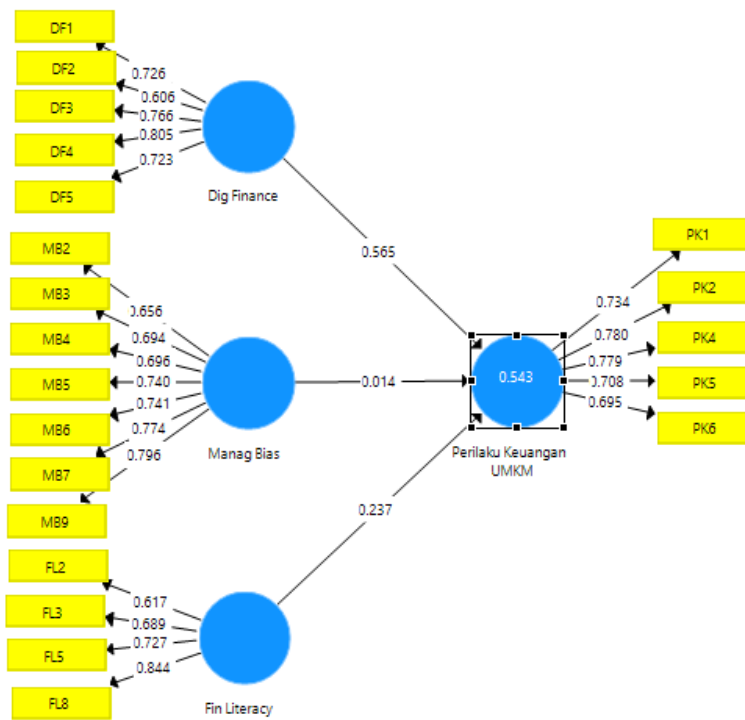


Figure 1. Conceptual Framework

## RESULTS AND DISCUSSION

### Data Validity Test

The evaluation of convergent validity from individual item reliability is assessed by examining the loading factor values. If the correlation value is > 0.70, the correlation can be considered valid, while loading factor values between 0.50 and 0.60 are considered acceptable. We conducted the test three times because in the first and second validity tests, there were still some indicators that were not valid and had to be dropped. In the third validity test, all indicators were valid, as shown in Figure 2 below:



**Figure 2. Convergent Validity Test**

In addition to using loading factor values, we also conducted tests based on the Average Variance Extracted (AVE) values for each correlation between constructs in the model.

**Table 1. Results of Average Variance Extracted (AVE) Validity Test**

variabel	AVE
Digital Finance	0.531
Financial Literacy	0.524
Managerial Biase	0.532
MSMEs' financial behavior	0.548

Source: Output PLS

Based on Table 1, the Average Variance Extracted (AVE) values show that each correlation between constructs is greater than 0.50, indicating that the data meet the validity criteria.

### Composite Reliability Testing

For the composite reliability testing, we used the standard values for composite reliability and Cronbach's alpha, both of which should be  $\geq 0.70$ .

**Table 2. Results of Composite Reliability & Cronbach's Alpha Reliability Test**

Variabel	Cronbach Alpha	Reliability
Digital Finance	0.776	0.849
Financial Literacy	0.724	0.813
Managerial Biases	0.853	0.888
MSMEs' financial behavior	0.793	0.858

Source: Output PLS

Based on Table 2, all composite reliability and Cronbach's alpha values are  $\geq 0.70$ , indicating that the questionnaire used as the research instrument is reliable.

### Goodness of Fit Model

The Goodness of Fit Model testing in this study uses the Adjusted R-Square value. The parameters for the Adjusted R-Square value are as follows: the model is considered strong if it is 0.75, moderate if it is 0.50, and weak if it is 0.25.

**Table 3. Goodness of Fit Model**

Variabel	R-Square Adjusted
MSMEs' financial behavior	0.776

Source: Output PLS

Based on Table 3 above, the Adjusted R-Square value for the Behavior Finance MSME variable is 0.536. This indicates that the model has a "Moderate" level of Goodness of Fit. It shows that the variables Digital Finance, Managerial Biases, and Financial Literacy influence MSMEs financial behavior by 53.6%, while the remaining 46.4% is influenced by other variables not examined in this study.

### Hypothesis Testing

The estimated path relationships in the structural model must be significant. This significance value can be obtained through bootstrapping procedures. The significance of the hypothesis is determined by examining the coefficient parameter values and the significance values of the T-statistics in the bootstrapping report. To determine significance, compare the t-table value at alpha 0.05 (5%) = 1.96. Then, compare the t-table value with the calculated t-value (t-statistic).

**Table 4. Results of Hypothesis Testing**

Variable	Original Sample	Standard Deviation	T-statistics	P values	Description
Digital Finance→ financial behavior	0.565	0.056	10.165	0.000	Positive Significant
Financial Literacy→ financial behavior	0.237	0.088	2.695	0.007	Positive Significant
Managerial Biases→ financial behavior	0.014	0.085	0.0169	0.866	Not Significant

Source: Output PLS

### Discussion

#### The Impact of Digital Finance on MSMEs' Financial Behavior

Based on the hypothesis testing in Table 3, it is evident that digital finance has a positive influence on MSMEs' financial behavior. The higher the utilization of digital finance by MSMEs, the better their financial management behavior. This indicates that MSMEs are already leveraging digital finance in their business activities. It provides a positive impact on increasing sales revenue, efficiency, and effectiveness in cash management and financial record-keeping, as well as business operations, all of which contribute to better MSME financial behavior.

These research findings support Davis' opinion in the Technology Acceptance Model (TAM), which suggests that behavioral change resulting from the acceptance of technology, such as digital finance, is influenced by the perceived usefulness (benefits) of that technology. The use of digital finance facilities will facilitate MSMEs in conducting financial transactions, thus improving their financial management behavior through the use of technology such as digital finance. Additionally, these findings align with Ajzen's theory of planned behavior, which suggests that behavioral change occurs due to intention. The use of digital finance facilities represents MSMEs' intention to improve behavioral finance, making it more effective and efficient.



### **The Influence of Managerial Biases on MSMEs' Financial Behavior**

Based on the hypothesis testing in Table 3, it is evident that Managerial Biases does not influence MSME financial behavior. This indicates that micro and small businesses (MSMEs), particularly micro-enterprises (MEs), operate on a small scale, resulting in infrequent financial decision-making, whether in financing or investment decisions. Business management conducted by oneself or family members typically does not require continuous and large-scale funding as in a corporation. Similarly, investment decisions occur only once at the beginning of the business. Therefore, financing and investment decisions do not significantly impact MSME financial behavior, especially for MSEs.

### **The Influence of Financial Literacy on MSMEs' Financial Behavior**

Based on the hypothesis testing in Table 3, it is evident that Financial Literacy has a positive influence on MSME Financial Behavior. This indicates that MSMEs already possess good financial literacy, including knowledge of personal financial management and business financial management.

These research findings support Ajzen's opinion in the theory of planned behavior, which suggests that behavioral change occurs due to intention. Therefore, MSMEs' efforts to improve financial literacy represent an intention to change their financial behavior. The higher the financial literacy of MSMEs, the higher the quality of their financial management.

## **CONCLUSION**

The higher the utilization of digital finance by MSMEs, the better their financial management behavior, as it provides a positive impact on enhancing performance and making financial management more effective and efficient. This change in financial behavior stems from the intention through the utilization of digital finance, which is also driven by the perceived benefits and ease of use of digital finance facilities.

MSMEs, especially micro and small enterprises (MSEs), are primarily managed by individuals and families, thus often not requiring continuous funding as in larger corporations. Investment decisions are typically made at the outset of the business, making financing and investment decisions less dominant in MSEs' financial management.

MSMEs with good financial literacy tend to exhibit good financial behavior. They are capable of better financial planning, take more responsibility for their financial decisions, and avoid engaging in unfavorable or detrimental business activities.

## **REFERENCES**

- Adiputra, I. G. (2021). The Influence of Overconfidence, Representative Bias, and Risk Tolerance in Investment Decision Making: Evidence on Stock Investors in Indonesia. *Journal of Hunan University (Natural Science)*, 48(April), 195–205.
- Budiman, J., & Patricia. (2021). Pengaruh Overconfidence Bias, Herding Bias, Representativeness Bias, Loss Aversion, dan Risk perception terhadap Investment Decision di Kota Batam. *CoMBInES*, 1(1), 1979–1987
- Caglayan, M., Talavera, O., & Zhang, W. (2021). Herding behaviour in P2P lending markets. *Journal of Empirical Finance*, 63, 27–41. <https://doi.org/10.1016/j.jempfin.2021.05.005>.
- Endris, E., Kassegn, A. (2022). The Role of Micro, Small and Medium Enterprises (MSMEs) to the Sustainable Development of Sub-Saharan Africa and its Challenges: A Systematic Review of Evidence from Ethiopia. *J Innov Entrep* 11(20), <https://doi.org/10.1186/s13731-022-00221-8>.
- Erlangga, M. Y., & Krisnawati, A. (2020). Pengaruh Fintech Payment Terhadap Perilaku Manajemen Keuangan Mahasiswa. *Jurnal Riset Manajemen Dan Bisnis*, 15(1), 53-62.
- Firdaus, M., Ayati, A., & Aprilia, P. (2022). The Effect of Financial Literature, Income and

- Herding Bias on Investment Decisions (Study on Students of the Faculty of Economics and Business, Mercu Buana University, Jakarta). *Indikator: Jurnal Ilmiah Manajemen dan Bisnis*, 6(1), 1 - 11. doi:<http://dx.doi.org/10.22441/indikator.v6i1.13913>
- Haqiqi, A. F. Z., & Pertiwi, T. K. (2022). Pengaruh Financial Technology, Literasi Keuangan dan Sikap Keuangan terhadap Perilaku Keuangan Generasi Z di Era Pandemi Covid-19 pada Mahasiswa UPN “Veteran” Jawa Timur. *SEIKO : Journal of Management & Business*, 5(2), 2022–2355. <https://doi.org/10.37531/sejaman.v5i2.2301>
- Huda, N., & Risman, A. (2024). The Behavioral Finance of MSMEs: Financial Inclusion and Financial Technology. *Indikator: Jurnal Ilmiah Manajemen dan Bisnis*, 8(2), 19-29. doi:<http://dx.doi.org/10.22441/indikator.v8i2.26780>
- Kamela, H., Alam, R. S., & Nugroho, A. P. (2022). Pengaruh Pengadopsian Internet Banking dan Dompot Digital Terhadap Transaksi Keuangan Pandemi Covid-19. *Jurnal Ilmiah Ekonomi Dan Bisnis*, 19(1), 39–45.
- Lahusa, R. (2023). Perilaku Masyarakat Dalam Penggunaan E-Wallet Dan Mobile Banking Selama Pandemi Covid-19. *JEBESH: Journal of Economics Business Ethic and Science Histories*, 1(1), 13–23.
- Lestari, N., Levyta, F., Rosman, D., Zainal, V., & Affini, D. (2022). Technology is a Solution for MSMEs Sustainability. *Indikator: Jurnal Ilmiah Manajemen dan Bisnis*, 6(2), 71-80. <http://dx.doi.org/10.22441/indikator.v6i2.14771>.
- Mukti, V. W., Rinofah, R., & Kusumawardhani, R. (2022). Pengaruh fintech payment dan literasi keuangan terhadap perilaku manajemen keuangan mahasiswa. <https://doi.org/10.29264/jakt.v19i1.10389>
- Nugraha, R., Eksanti, A., & Haloho, Y. (2022). The Influence Of Financial Literacy And Financial Behavior On Investment Decision. *Indikator: Jurnal Ilmiah Manajemen dan Bisnis*, 6(2), 43 - 53. doi:<http://dx.doi.org/10.22441/indikator.v6i2.14001>
- OJK, 2023. Literasi Keuangan, <https://ojk.go.id/id/kanal/edukasi-dan-perlindungan-konsumen>. diakses Mei 2023.
- Putri, N. I., Munawar, Z., & Komalasari, R. (2022). Minat Penggunaan QRIS Sebagai Alat Pembayaran Pasca Pandemi. *Prosiding Seminar Nasional Sistem Informasi Dan Teknologi (SISFOTEK)*, 6, 155–160.
- Rahayu, F. S., Risman, A., Firdaus, I. ., & Haningsih, L. (2023). The Behavioral Finance of MSME in Indonesia: Financial Literacy, Financial Technology (Fintech), and Financial Attitudes. *International Journal of Digital Entrepreneurship and Business*, 4(2), 95–107. <https://doi.org/10.52238/ideb.v4i2.127>
- Rahman, A., & Risman, A. (2021). Is Behavior Finance Affected by Income, Learning Finance, and Lifestyle? *The EUrASEANs: Journal on Global Socio-Economic Dynamics*, 4(29), 29–40. [https://doi.org/https://doi.org/10.35678/2539-5645.4%20\(29\).2021](https://doi.org/https://doi.org/10.35678/2539-5645.4%20(29).2021)
- Rukamana, K. L., & Azib. (2021). Pengaruh Literasi Keuangan, Sikap Keuangan, dan Kepribadian terhadap Perilaku Manajemen Keuangan Pelaku Ekonomi Kreatif Kota Bandung di Masa Pandemi COVID-19 Kania. *Prosiding Manajemen*, 7(1), 227–232.
- Risman, A., Ali, A. J., Soelton, M., & Siswanti, I. (2023). The behavioral finance of MSMEs in the advancement of financial inclusion and financial technology ( fintech ). 13(1), 91–101. <https://doi.org/10.14414/tiar.v13i1.3213>
- Risman, A., Prowanta, E., & Siswanti, I. (2021). *Behavioral Corporate Finance*. Penerbit KBM Indonesia.
- Risman, A., Mulyana, B., Silvatika, B., & Sulaeman, (2021), A. The Effect of Digital Finance on Financial Stability. *Management Science Letters*, 11(7), 1979-1984. <https://doi.org/10.5267/j.msl.2021.3.012>.
- Rodrigues, M.; Franco, M.; Silva, R.; Oliveira, C. (2021), Success Factors of SMEs: Empirical Study Guided by Dynamic Capabilities and ResourcesBased View. *Sustainability*, 13(21), 12301. <https://doi.org/10.3390/su132112301>.



- Rona, I. W., & Sinarwati, N. K. (2021). Pengaruh Herding Bias dan Overconfidence Bias terhadap Pengambilan Keputusan Investasi. *Studi Akuntansi Dan Keuangan Indonesia*, 4(2), 104–130. <https://doi.org/10.21632/saki.4.2.104-130>.
- Sihombing, Y. R., & Prameswary, R. S. A. (2023). The Effect of Overconfidence Bias and Representativeness Bias on Investment Decision With Risk Tolerance as Mediating Variable. *Indikator: Jurnal Ilmiah Manajemen Dan Bisnis*, 7(1), 1. <https://doi.org/10.22441/indikator.v7i1.18396>
- Sindhvani, R., Behl, A., Sharma, A., & Gaur, J., (2022) What Makes Micro, Small, and Medium Enterprises not Adopt Logistics 4.0? A Systematic and Structured Approach Using Modified-Total Interpretive Structural Modelling. *International Journal of Logistics Research and Applications*, DOI: 10.1080/13675567.2022.2081672.
- Soelton, M., Permana, D., Ramli, Y., Hanafiah, A., Karyatun, S., Srihadi, T., & Risman, A. (2023). Business Plan Counseling In Creating Micro-Entrepreneurship At Kemanggisian-Jakarta. *ICCD*, 5(1), 266-271. <https://doi.org/10.33068/iccd.v5i1.589>.
- Soraya, R., Risman, A., & Siswanti, I. (2023). The Role of Risk Tolerance in Mediating the Effect of Overconfidence Bias, Representativeness Bias and Herding on Investment Decisions. *Journal of Economics, Finance and Management Studies*. 06. doi:<http://dx.doi.org/10.47191/jefms/v6-i7-36>
- Zikrillah, Wahyudi, W., & Kusmana, A. (2021). Determinan Perilaku Manajemen Keuangan UMKM di Kelurahan Lenteng Agung DKI Jakarta. *Konferensi Riset Nasional Ekonomi Manajemen Dan Akuntansi*, 2(1), 1428–1445. <https://conference.upnvj.ac.id/index.php/korelasi/article/view/1095>
- Zulfikri, M., Hidayat, S., Manajemen, N. P., Ekonomi, F., & Bisnis, D. (2020). Pengaruh Literasi Keuangan dan Sikap Keuangan Terhadap Perilaku Manajemen Keuangan. *Prosiding Manajemen*, 6(2), 943–949. <https://doi.org/10.29313/.v6i2.24036>