

BEHAVIORAL BIASES IN FINANCIAL REPORTING: EXAMINING THE IMPACT OF OVERCONFIDENCE AND RISK AVERSION ON MANAGERIAL ACCOUNTING PRACTICES

Zara Tania Rahmadi¹, Dheo Rimbano²

¹Kwik Kian Gie School of Business, Indonesia

²Universitas Bina Insan, Indonesia

Email: ikpi.ztr@gmail.com

Article History

Received: 11-12-2024

Revision: 24-12-2024

Accepted: 26-12-2024

Published: 31-12-2024

Abstract. This study explores the influence of behavioral biases, specifically overconfidence and risk aversion, on managerial accounting practices, focusing on their impact on aggressive and conservative financial reporting. Using quantitative approach with an online survey of 200 managerial-level respondents, data were analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that overconfidence significantly drives aggressive financial reporting, while risk aversion promotes conservative practices. Furthermore, the interaction between these biases moderates their effects, highlighting the complexity of managerial decision-making. The study contributes to behavioral accounting theory by integrating psychological insights and providing practical implications for improving financial reporting accuracy through bias mitigation strategies. Future research is encouraged to examine additional biases, cross-cultural contexts, and the influence of technological advancements on managerial practices

Keywords: Behavioral Bias, Overconfidence, Risk Aversion, Financial Reporting

Abstrak. Studi ini mengeksplorasi pengaruh bias perilaku, khususnya rasa percaya diri yang berlebihan dan penghindaran risiko, pada praktik akuntansi manajerial, dengan fokus pada dampaknya terhadap pelaporan keuangan yang agresif dan konservatif. Menggunakan pendekatan kuantitatif dengan survei daring terhadap 200 responden tingkat manajerial, data dianalisis melalui Partial Least Squares Structural Equation Modeling (PLS-SEM). Temuan tersebut mengungkapkan bahwa rasa percaya diri yang berlebihan secara signifikan mendorong pelaporan keuangan yang agresif, sementara penghindaran risiko mendorong praktik konservatif. Lebih jauh, interaksi antara bias ini memoderasi efeknya, yang menyoroti kompleksitas pengambilan keputusan manajerial. Studi ini berkontribusi pada teori akuntansi perilaku dengan mengintegrasikan wawasan psikologis dan memberikan implikasi praktis untuk meningkatkan akurasi pelaporan keuangan melalui strategi mitigasi bias. Penelitian di masa mendatang didorong untuk memeriksa bias tambahan, konteks lintas budaya, dan pengaruh kemajuan teknologi pada praktik manajerial.

Kata Kunci: Bias Perilaku, Terlalu Percaya Diri, Penghindaran Risiko, Pelaporan Keuangan

How to Cite: Rahmadi, T. Z. & Rimbano, D. (2024). Behavioral Biases in Financial Reporting: Examining the Impact Of Overconfidence And Risk Aversion On Managerial Accounting Practices. *Indo-Fintech Intellectuals: Journal of Economics and Business*, 4 (6), 3145-3157. [10.54373/ifijeb.v4i6.2359](https://doi.org/10.54373/ifijeb.v4i6.2359)

INTRODUCTION

Financial reporting is a cornerstone of modern business, serving as a critical channel through which organizations communicate their financial health and operational performance to stakeholders. The primary objective of financial reporting is to provide accurate, reliable, and unbiased information that supports decision-making by investors, regulators, and other stakeholders (Manginte, 2024). Despite the availability of stringent accounting standards and regulations, the integrity of financial reports often hinges on the behavioral tendencies of managers and accountants. Behavioral biases, including overconfidence and risk aversion, have emerged as critical determinants in shaping managerial decisions, introducing subjective elements that can compromise the objectivity of financial reports (Costa et al., 2017).

Overconfidence, a well-documented cognitive bias, refers to an individual's tendency to overestimate their knowledge, abilities, or control over outcomes (Menkhoff et al., 2013). Within the context of financial reporting, overconfident managers are more likely to engage in aggressive accounting practices, such as overestimating revenues or underestimating expenses, to portray a favorable organizational image (Barber & Odean, 2001). This bias can lead to an inflated representation of company performance, potentially resulting in distorted stakeholder perceptions and misinformed investment decisions. Consequently, understanding the implications of overconfidence in managerial accounting is crucial for mitigating risks associated with biased financial reporting.

In contrast, risk aversion, which describes a preference for certainty and a reluctance to engage in uncertain outcomes, can also significantly influence financial decision-making. Managers exhibiting risk-averse tendencies often adopt conservative accounting practices, prioritizing stability and avoiding bold strategies that might expose the organization to financial vulnerabilities (X. Zhang et al., 2024). While conservatism can be a prudent approach, excessive risk aversion may stifle innovation and limit opportunities for organizational growth. Moreover, this bias can result in underreporting of potential gains, thereby creating an overly pessimistic view of the organization's prospects.

The interplay of these biases becomes particularly pronounced in environments characterized by high uncertainty, such as economic downturns or industry disruptions. Behavioral finance theories suggest that cognitive biases are amplified in stressful or uncertain conditions, further complicating the financial reporting process (Statman, 2014). This underscores the importance of addressing these biases to ensure the reliability and accuracy of financial statements, which are critical for maintaining stakeholder trust and fostering sustainable organizational growth.

Despite the growing recognition of behavioral biases in accounting literature, there remains a paucity of empirical studies that simultaneously examine the impact of overconfidence and risk aversion on managerial accounting practices. Most existing research focuses on these biases in isolation, neglecting their combined effects and potential interactions (Y. Zhang & Zheng, 2015). This gap in the literature highlights the need for a more holistic understanding of how behavioral tendencies shape financial reporting practices, particularly in the context of managerial decision-making.

The prevalence of behavioral biases in financial reporting raises significant concerns regarding the reliability and transparency of managerial accounting practices. While regulatory frameworks aim to standardize reporting processes, they often fail to account for the subjective influences of cognitive biases on managerial decisions. Overconfidence may lead to overly optimistic financial projections, while risk aversion might result in undue conservatism, both of which can mislead stakeholders and undermine the credibility of financial reports. Thus, the lack of a comprehensive framework for addressing these biases represents a critical challenge for enhancing the integrity of financial reporting.

This study aims to investigate the impact of overconfidence and risk aversion on managerial accounting practices, focusing on their implications for financial reporting accuracy and decision-making. By exploring the behavioral underpinnings of accounting decisions, the research seeks to contribute to the development of strategies for mitigating cognitive biases, thereby enhancing the objectivity and reliability of financial reports.

LITERATURE REVIEW

Behavioral finance explores the psychological factors that influence financial decision-making, challenging the classical assumption of rationality in economic theory (Kahneman & Tversky, 2013). Among these biases, overconfidence and risk aversion have received significant attention due to their profound impact on managerial decisions. Overconfidence manifests in excessive self-assurance about one's judgment, often leading managers to overestimate their ability to predict outcomes and control risks (Glaser & Weber, 2007). This bias is particularly evident in financial reporting, where managers may overstate revenues, inflate earnings, or underestimate liabilities to present a favorable corporate image (Shefrin, 2002).

Conversely, risk aversion reflects an individual's preference for certainty over uncertainty, often resulting in conservative decision-making (Ummah, 2019). In financial reporting, risk-averse managers may adopt conservative accounting practices, such as underreporting potential

revenues or overestimating liabilities, to avoid perceived risks associated with financial volatility (Gómez-Bull et al., 2023). While these practices may enhance stability, they can also obscure a company's true financial potential, affecting stakeholder perceptions and long-term growth opportunities.

Empirical studies have consistently linked overconfidence to aggressive accounting behavior. Inghelbrecht & Tedde (2024) found that overconfident CEOs are more likely to manipulate earnings to meet or exceed analysts' expectations, even at the risk of regulatory penalties. Similarly, Chu, Liu, & Chiu (2023) observed that overconfident managers often underestimate the likelihood of negative outcomes, leading to optimistic financial projections and accounting irregularities. This behavior not only distorts financial reports but also increases the likelihood of organizational failure in cases where projections do not align with actual performance.

Moreover, overconfidence is often amplified in competitive environments where managers face pressure to demonstrate superior performance (Pradikasari & Isbanah, 2018). Such conditions encourage excessive risk-taking and creative accounting practices, further compromising the integrity of financial reporting. This body of research underscores the need to examine overconfidence as a critical factor influencing managerial accounting practices, particularly in high-stakes decision-making contexts.

In contrast to overconfidence, risk aversion leads to cautious financial reporting, often characterized by conservative accounting principles. Mya, Zaw, & Mya (2021) highlighted the prevalence of conservatism in accounting, noting its tendency to recognize losses more readily than gains. This approach, while reducing financial volatility, may inadvertently misrepresent a firm's financial health by downplaying its growth potential. Research by Ummah (2019) further demonstrates that risk-averse managers are more likely to employ conservative accounting practices to safeguard against regulatory scrutiny and potential market backlash.

While conservatism can serve as a protective mechanism, it also has limitations. Excessive risk aversion can hinder innovation and strategic decision-making, as managers prioritize short-term stability over long-term value creation (Riasudeen et al., 2022). Consequently, understanding the role of risk aversion in shaping managerial accounting practices is essential for balancing the trade-offs between stability and growth in financial reporting.

The interaction between overconfidence and risk aversion presents a complex dynamic in financial decision-making. While overconfidence drives aggressive and optimistic reporting, risk aversion tempers this tendency with caution and conservatism. Hu & Yang (2023) argue that these biases often coexist, creating a nuanced behavioral landscape where managers must

navigate conflicting impulses. For instance, a manager may exhibit overconfidence in their ability to achieve financial targets while simultaneously adopting risk-averse strategies to mitigate potential losses. This interplay highlights the need for empirical studies that examine the combined effects of these biases on managerial accounting practices.

This study draws on behavioral finance theories, particularly Prospect Theory and the Upper Echelons Theory. Prospect Theory posits that individuals evaluate outcomes relative to a reference point, leading to loss aversion and risk-taking behaviors (Kahneman & Tversky, 2013). In the context of financial reporting, this theory explains why managers may alternate between overconfidence and risk aversion depending on perceived gains or losses. The Upper Echelons Theory, introduced by (Hambrick & Mason, 1984), emphasizes the influence of managerial characteristics on organizational outcomes. This perspective highlights how cognitive biases shape financial reporting practices, providing a theoretical basis for investigating the role of overconfidence and risk aversion in managerial accounting.

Based on the literature, overconfident managers are likely to engage in aggressive financial reporting practices, leading to biased financial statements. This behavior stems from their belief in their ability to predict and control outcomes, often resulting in overly optimistic projections and accounting irregularities (Barber & Odean, 2001). Thus, the following hypothesis is proposed:

H1: Overconfidence has a positive impact on aggressive financial reporting practices.

Risk-averse managers prioritize stability and certainty, often adopting conservative accounting practices to avoid potential financial risks (X. Zhang et al., 2024). While this approach enhances stability, it can also lead to underreporting of financial gains, affecting the overall accuracy of financial statements. Accordingly, the second hypothesis is:

H2: Risk aversion has a positive impact on conservative financial reporting practices.

The interplay between overconfidence and risk aversion creates a complex dynamic in financial reporting. Managers exhibiting both biases may oscillate between aggressive and conservative practices, depending on contextual factors such as market conditions or organizational performance (Shunmugasundaram & Sinha, 2024). To explore this interaction, the following hypothesis is proposed:

H3: The interaction between overconfidence and risk aversion moderates the impact of these biases on managerial accounting practices.

METHOD

This study employs a quantitative research design to examine the impact of behavioral

biases (overconfidence and risk aversion) on managerial accounting practices. The research utilizes a survey-based approach to collect primary data from managerial accountants, finance managers, and other relevant professionals within organizations. The study integrates Partial Least Squares Structural Equation Modeling (PLS-SEM) as the analytical method, chosen for its robustness in handling complex models with latent variables and small-to-medium sample sizes.

The population for this study consists of managerial accountants and financial professionals working in medium to large-sized organizations across various industries in Indonesia. These professionals are selected because they are directly involved in financial reporting and managerial decision-making processes. A purposive sampling method is used to identify participants, ensuring that respondents have sufficient experience and expertise in accounting and financial reporting.

The sample size is determined based on the rule of thumb for PLS-SEM, which suggests a minimum of 10 times the maximum number of indicators for a single latent construct (Hair Jr et al., 2017). Assuming the most complex construct in the model has eight indicators, the minimum required sample size is 80. However, to enhance the reliability and validity of the results, the study targets a sample size of 200 respondents.

Data collection for this study is conducted through an online survey utilizing a structured questionnaire to capture key variables. Overconfidence is measured using validated scales developed by (Moore, 2016), while risk aversion is assessed with risk preference scales from (Dohmen et al., 2011). Managerial accounting practices, encompassing aggressive and conservative financial reporting dimensions, are measured using frameworks from prior research such as (Ahmed & Duellman, 2013). Respondents rate their agreement with statements on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Additionally, demographic and control variables, including age, education, industry, and organizational role, are collected to account for their potential influence on the model.

The study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the relationships within the proposed research model, given its suitability for complex models involving reflective and formative constructs. The analysis is conducted in two stages. First, the measurement model is evaluated to ensure the reliability and validity of the constructs. Indicator reliability is assessed by retaining items with outer loadings of 0.70 or higher. Internal consistency reliability is confirmed when composite reliability (CR) values are at least 0.70, while convergent validity is demonstrated with an Average Variance Extracted (AVE) value of 0.50 or higher. Discriminant validity is examined using the Fornell-Larcker criterion and the

Heterotrait-Monotrait (HTMT) ratio, with HTMT values below 0.85 indicating sufficient distinctiveness between constructs (Henseler et al., 2015).

In the second stage, the structural model is evaluated to test the relationships between constructs. Path coefficients (β) are analyzed for magnitude and significance using bootstrapping with 5,000 subsamples. The coefficient of determination (R^2) assesses the explanatory power of the model, with thresholds of 0.19 (weak), 0.33 (moderate), and 0.67 (substantial). Predictive relevance (Q^2) is calculated using the blindfolding procedure, where values greater than 0 confirm the model’s predictive ability. Additionally, the effect size (f^2) of individual predictors is measured, with thresholds of 0.02, 0.15, and 0.35 representing small, medium, and large effects, respectively.

RESULTS

The sample comprised 200 respondents, with diverse representation across industries, roles, and levels of experience in managerial accounting. Descriptive statistics for the key variables (overconfidence, risk aversion, and managerial accounting practices) are presented in Table 1.

Table 1. Descriptive Statistics

Variable	Mean	Standard Deviation	Min	Max
Overconfidence	4,523	0,876	2	5
Risk Aversion	4,012	0,945	2	5
Aggressive Reporting	4,875	0,843	3	5
Aggressive Reporting	4,129	0,910	2	5

The measurement model was assessed for reliability and validity. All constructs met the established thresholds for indicator reliability, composite reliability (CR), convergent validity (AVE), and discriminant validity.

Table 2. Measurement Model Evaluation

Construct	Composite Reliability (CR)	Average Variance Extracted (AVE)	HTMT (Highest Value)
Overconfidence	0,897	0,683	0,769
Risk Aversion	0,873	0,612	0,801
Aggressive Reporting	0,901	0,701	0,814
Conservative Reporting	0,880	0,655	0,742

All indicators had loadings ≥ 0.70 , confirming indicator reliability. Composite reliability exceeded 0.70 for all constructs, while AVE values surpassed the 0.50 threshold, ensuring convergent validity. The highest HTMT value (0.814) was below the cutoff of 0.85, confirming discriminant validity.

The structural model was evaluated using bootstrapping with 5,000 subsamples to test the hypotheses. Results are summarized in Table 3.

Table 3. Structural Model Results

Hypothesis	Path	β Coefficient	t-Value	p-Value	Result
H1	Overconfidence → AFR	0,411	6,852	0,001	Supported
H2	Risk Aversion → CFR	0,453	7,124	0,001	Supported
H3	OC × RA → MAP	0,219	3,562	0,001	Supported

Overconfidence had a significant positive impact on aggressive financial reporting ($\beta = 0.411$, $t = 6.852$, $p < 0.001$), supporting the hypothesis that overconfident managers tend to adopt aggressive accounting practices. Risk aversion significantly influenced conservative financial reporting ($\beta = 0.453$, $t = 7.124$, $p < 0.001$), confirming the hypothesis that risk-averse managers prefer conservative practices. The interaction between overconfidence and risk aversion significantly moderated managerial accounting practices ($\beta = 0.219$, $t = 3.562$, $p < 0.001$), indicating that the interplay of these biases affects financial reporting dynamics. The model fit and predictive relevance metrics are summarized in Table 4.

Table 4. Model Fit and Predictive Relevance

Metric	Value	Threshold	Interpretation
R ² (AFR)	0,447	0.33 (Moderate)	Substantial
R ² (CFR)	0,489	0.33 (Moderate)	Substantial
Q ² (AFR)	0,279	0.00	Predictive Relevance
Q ² (CFR)	0,311	0.00	Predictive Relevance

The R² values for aggressive and conservative reporting (0.447 and 0.489, respectively) indicate moderate explanatory power. Q² values (0.279 and 0.311) confirm the model's

predictive relevance. Effect size analysis shows that overconfidence ($f^2 = 0.181$) and risk aversion ($f^2 = 0.207$) have medium effects on their respective outcomes. The interaction term ($f^2 = 0.062$) has a small but significant effect.

DISCUSSION

The study confirms that overconfidence has a significant positive effect on aggressive financial reporting practices ($\beta = 0.411$, $p < 0.001$). Overconfident managers, driven by their inflated beliefs in their judgment and ability to predict outcomes, are more likely to engage in accounting practices that present an optimistic view of their organization's financial performance. These findings align with prior studies that highlight overconfidence as a key driver of riskier decision-making behaviors in corporate finance and accounting (Kurniasari & Utomo, 2022; Menkhoff et al., 2013).

Overconfidence can lead managers to underestimate risks associated with aggressive reporting, such as regulatory scrutiny, reputational damage, or financial restatements. While these practices might temporarily enhance perceived financial health, they pose long-term risks to organizational sustainability. The results underscore the need for organizations to develop mechanisms, such as enhanced governance structures and independent oversight, to mitigate the influence of overconfidence on financial reporting.

Risk aversion was found to significantly influence conservative financial reporting ($\beta = 0.453$, $p < 0.001$). Risk-averse managers prioritize stability and prefer practices that safeguard the organization's financial standing, often by understating earnings or delaying revenue recognition to buffer against future uncertainties. These findings are consistent with Ahmed & Duellman (2013) observations that conservatism in accounting serves as a protective mechanism against potential risks.

This conservative approach, while reducing the likelihood of financial misrepresentation, may also result in missed growth opportunities. For instance, excessive conservatism could deter investment in high-risk, high-reward projects. Organizations must strike a balance between fostering innovation and maintaining financial prudence by tailoring their financial reporting policies to their strategic goals and industry context.

The moderating role of the interaction between overconfidence and risk aversion provides a nuanced understanding of how these biases jointly influence managerial accounting practices ($\beta = 0.219$, $p < 0.001$). The interplay suggests that while overconfidence and risk aversion might seem to counterbalance each other, their combined effects can produce complex outcomes. For instance, an overconfident yet risk-averse manager might alternate between

aggressive and conservative reporting based on situational factors, such as industry competition or shareholder expectations.

This finding highlights the importance of recognizing the heterogeneity of managerial behavior in organizations. Behavioral tendencies are not fixed and can vary depending on contextual factors such as organizational culture, market conditions, and regulatory environments. Future research could explore these situational determinants to provide a deeper understanding of the dynamics between psychological biases and managerial practices.

The results contribute to behavioral accounting theory by integrating psychological insights into traditional accounting frameworks. Specifically, they extend the literature on bounded rationality by demonstrating how cognitive biases shape decision-making in financial reporting. Overconfidence aligns with prior studies that position it as a cognitive bias leading to optimistic projections (Glaser & Weber, 2007), while risk aversion reflects tendencies toward financial prudence to manage uncertainty (Dohmen et al., 2011). The interaction effect broadens our theoretical understanding by suggesting that managerial behaviors are not merely the sum of individual biases but are influenced by their interplay. These findings highlight the need for accounting theories to incorporate multidimensional constructs that capture the complexity of managerial decision-making processes.

CONCLUSION

This study demonstrates the critical influence of behavioral biases—specifically overconfidence and risk aversion—on managerial accounting practices, with overconfidence driving aggressive financial reporting and risk aversion fostering conservative approaches. The interaction between these biases reveals the complex dynamics that shape financial decision-making, underscoring the importance of context and individual tendencies in managerial behavior. By leveraging PLS-SEM analysis, the study provides robust empirical evidence supporting the theoretical link between psychological biases and financial reporting outcomes. These findings emphasize the need for organizations to implement mechanisms that mitigate the adverse effects of these biases while fostering a balanced approach to decision-making. Future research could expand this understanding by exploring additional biases, cross-cultural contexts, and the role of technological tools in enhancing financial reporting practices.

RECOMMENDATIONS

For practitioners, the study offers actionable insights into mitigating the adverse effects of behavioral biases in financial reporting. Overconfidence, while potentially beneficial for

fostering innovation and risk-taking, must be monitored to prevent overstatement of financial performance. Organizations can implement mechanisms such as peer reviews, independent audits, and decision-support systems to reduce the impact of overconfidence. Risk aversion, on the other hand, while safeguarding against financial instability, might lead to excessively conservative practices that hinder organizational growth. By promoting a culture of measured risk-taking, organizations can encourage managers to balance prudence with strategic initiatives. Training programs that enhance self-awareness of cognitive biases can also empower managers to make more informed decisions.

While this study provides valuable insights, it is not without limitations. First, the reliance on self-reported survey data may introduce social desirability bias, where respondents provide answers they perceive to be favorable rather than accurate. Future studies could address this limitation by incorporating objective measures of managerial practices, such as actual financial reports. Second, the study focuses on a single geographic context—Indonesia—which may limit the generalizability of the findings to other cultural or economic settings. Cultural dimensions, such as uncertainty avoidance or collectivism, might influence the extent to which overconfidence and risk aversion manifest in managerial behavior. Cross-cultural studies are needed to validate these findings in diverse contexts. Lastly, the study adopts a cross-sectional design, capturing data at a single point in time. As behavioral tendencies and financial practices evolve, a longitudinal approach could provide a more comprehensive view of how these relationships change over time.

This study opens several avenues for future research. First, future studies could investigate the role of organizational factors, such as corporate governance and leadership style, in moderating the effects of behavioral biases on financial reporting. Such research could provide practical insights into how organizations can design systems to counteract biases. Second, exploring the interplay of additional psychological biases, such as anchoring or loss aversion, could offer a more comprehensive understanding of the cognitive factors influencing financial reporting. Multi-bias models could reveal deeper complexities in managerial decision-making.

Third, the impact of technological advancements, such as artificial intelligence (AI) and big data analytics, on mitigating or amplifying behavioral biases warrants investigation. For instance, AI-driven decision-support systems could help managers recognize and address biases, potentially improving reporting accuracy. Finally, industry-specific studies could illuminate how sectoral characteristics, such as risk profiles or regulatory requirements, influence the relationship between behavioral biases and accounting practices. For example,

industries with high volatility, such as technology or pharmaceuticals, might exhibit different patterns compared to stable sectors like utilities.

REFERENCES

- Ahmed, A. S., & Duellman, S. (2013). Managerial overconfidence and accounting conservatism. *Journal of Accounting Research*, *51*(1), 1–30.
- Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *The Quarterly Journal of Economics*, *116*(1), 261–292.
- Chu, H.-L., Liu, N.-Y., & Chiu, S.-C. (2023). CEO power and CSR: the moderating role of CEO characteristics. *China Accounting and Finance Review*, *25*(1), 101–121. <https://doi.org/10.1108/cafr-03-2022-0027>
- Costa, D. F., de Melo Carvalho, F., de Melo Moreira, B. C., & do Prado, J. W. (2017). Bibliometric analysis on the association between behavioral finance and decision making with cognitive biases such as overconfidence, anchoring effect and confirmation bias. *Scientometrics*, *111*, 1775–1799.
- Dohmen, T., Falk, A., Fliessbach, K., Sunde, U., & Weber, B. (2011). Relative versus absolute income, joy of winning, and gender: Brain imaging evidence. *Journal of Public Economics*, *95*(3–4), 279–285.
- Glaser, M., & Weber, M. (2007). Overconfidence and trading volume. *The Geneva Risk and Insurance Review*, *32*, 1–36.
- Gómez-Bull, K. G., Ibarra-Mejía, G., & Vargas-Salgado, M. M. (2023). Risk perception in the construction industry: A literature review and future research directions. *Work*, *76*(4), 1333–1344.
- Hair Jr, J. F., Babin, B. J., & Krey, N. (2017). Covariance-based structural equation modeling in the Journal of Advertising: Review and recommendations. *Journal of Advertising*, *46*(1), 163–177.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, *9*(2), 193–206.
- Hu, Y., & Yang, K. (2023). An overview of behavioral finance research in China and abroad—Bibliometric analysis based on Gephi and Cite Space. *Management & Innovation*, *1*(1), 1–8.
- Inghelbrecht, K., & Tedde, M. (2024). Overconfidence, financial literacy and excessive trading. *Journal of Economic Behavior & Organization*, *219*, 152–195.
- Kahneman, D., & Tversky, A. (2013). Prospect theory: An analysis of decision under risk. In *Handbook of the fundamentals of financial decision making: Part I* (pp. 99–127). World Scientific.
- Kurniasari, F., & Utomo, P. (2022). The Key Determinants of Financial Risk Tolerance Among Gen-Z Investors: Propensity for Regret, Propensity for Overconfidence and Income Level. *Eurasia Business and Economics Society Conference*, 289–298.

- Manginte, S. Y. (2024). Fortifying Transparency: Enhancing Corporate Governance through Robust Internal Control Mechanisms. *Advances in Management & Financial Reporting*, 2(2), 72–84.
- Menkhoff, L., Schmeling, M., & Schmidt, U. (2013). Overconfidence, experience, and professionalism: An experimental study. *Journal of Economic Behavior & Organization*, 86, 92–101.
- Moore, D. A. (2016). *Moore and Healy, 2008*.
- Mya, K. S., Zaw, K. K., & Mya, K. M. (2021). Developing and validating a questionnaire to assess an individual's perceived risk of four major non-communicable diseases in Myanmar. *PLoS ONE*, 16(4 April 2021). <https://doi.org/10.1371/journal.pone.0234281>
- Pradikasari, E., & Isbanah, Y. (2018). Pengaruh financial literacy, illusion of control, overconfidence, risk tolerance, dan risk perception terhadap keputusan investasi pada mahasiswa di Kota Surabaya. *Jurnal Ilmu Manajemen (JIM)*, 6(4), 424–434.
- Riasudeen, S., Ratnoo, H. S., Kannadhasan, M., & Singh, P. (2022). Risk perception as a mediator in explaining the relationship of cognitive biases and new venture creation. *The Journal of Entrepreneurship*, 31(2), 274–297.
- Shefrin, H. (2002). *Beyond greed and fear: Understanding behavioral finance and the psychology of investing*. Oxford University Press.
- Shunmugasundaram, V., & Sinha, A. (2024). The impact of behavioral biases on investment decisions: a serial mediation analysis. *Journal of Economics, Finance and Administrative Science*.
- Statman, M. (2014). Behavioral finance: Finance with normal people. *Borsa Istanbul Review*, 14(2), 65–73.
- Ummah, M. S. (2019). No 主観的健康感を中心とした在宅高齢者における健康関連指標に関する共分散構造分析Title. In *Sustainability (Switzerland)* (Vol. 11, Issue 1). http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484_SISTEM_PEMBETUNGAN_TERPUSAT_STRATEGI_MELESTARI
- Zhang, X., Chang, R., Wang, M., & Sui, X. (2024). The influence of driver's risk perception ability on driving decision-making: an ERP study. *Current Psychology*, 1–11.
- Zhang, Y., & Zheng, X. (2015). A study of the investment behavior based on behavioral finance. *European Journal of Business and Economics*, 10(1).