

COGNITIVE BIASES UNVEILED: FRAMING, TIME PRESSURE, AND CULTURAL UNCERTAINTY AVOIDANCE RESHAPE INVESTMENT DECISIONS THROUGH

Raihan Aqil Fauzananda Musrady¹; Leny Suzan²; Teodora Winda Mulia³

School of Economics and Business Telkom University, Bandung^{1,2,3}

Email korespondensi:

[raihanafm@student.telkomuniversity.ac.id¹](mailto:raihanafm@student.telkomuniversity.ac.id);

[lenysuzan@telkomuniversity.ac.id²](mailto:lenysuzan@telkomuniversity.ac.id);

[windalasdi@telkomuniversity.ac.id³](mailto:windalasdi@telkomuniversity.ac.id)

ABSTRACT

This study aims to analyze the influence of framing, time pressure, and uncertainty avoidance on investment evaluation decision-making. This study uses an experimental approach based on fuzzy-trace theory and prospect theory rooted in behavioral finance. The experiment was conducted on final-year accounting students as a proxy for financial decision-makers, using a 2x2x2 factorial design to examine the influence of each variable. The analysis results indicate that information framing significantly influences investment decisions; participants who received information with negative framing tended to be more willing to take risks compared to those with positive framing. Time pressure was also found to affect decision accuracy, while uncertainty avoidance revealed significant differences in risk preferences. These findings reinforce evidence that psychological aspects and situational context play a significant role in financial decision-making, particularly in the evaluation of fixed asset investments. The practical implications of this study highlight the importance of developing information strategies and managerial controls in the long-term investment decision-making process.

Keywords : Framing, Time Pressure, Cultural, Investment Decisions.

INTRODUCTION

Decision-making is at the core of every managerial activity, especially in the context of corporate financial management. In the realm of financial management, investment decisions are one of the most crucial strategic decisions taken by top management (Brigham & Ehrhardt, 2017). This decision is closely related to the allocation of company resources in the form of capital to obtain future profits. Investment evaluation is an important process to assess the feasibility of a project or asset in contributing added value to the company (Garrison et al., 2010). Although the investment evaluation process is often considered a rational and quantitative process, the reality is that investment decision-making is highly susceptible to the influence of psychological and cognitive factors (Bazerman & Moore, 2013). This is the reason why the behavioral finance methods are becoming more applicable to know how the real decision making in investments is done. Behavioral finance is a transdisciplinary branch that combines the psychological and the financial concepts in an attempt to determine the causes of decision making behaviors that are not objectively in line with traditional economic principles (Thaler, 2008). Information is a must in today's era of globalization. This information can provide managers as decision makers in solving problems or improving conditions in their companies. A company is an organization that is built and has the aim of advancing its company (Ramadita & Suzan, 2019). Every form of company carries out its business activities to achieve several goals, including: obtaining maximum profit, achieving rapid growth and maintaining and sustaining the company's survival (Lubis & Suzan, 2016). Therefore, the development of this business is expected to provide a positive contribution to this problem (Kristanti et al., 2019).

Framing effect of behavioral finance is an essential phenomenon; the premise is that people accept mixed decisions supported by information based on its presentation (Kahneman and

Tversky, 1979). As an example, an individual will not be prepared to take risks when an outcome is defined as a gain but may be so more likely to take a risk when the same outcome is presented as a possible loss. This has been an important concept in many decision-making situations such as the assessment of investment projects (Zainuddin et al., 2022). Other than framing, time pressure is also an essential element in investment decision making process. It makes it more likely that people will use heuristics as a mental shortcut that is quick but biased (Maule & Andrade, 2016). Time pressure can play a crucial role in the case of investment evaluation, as time shortage among decision makers can lead to their failure to provide an analytical, yet subconscious answer (Wegier & Spaniol, 2015).

Uncertainty avoidance is the third dimension of culture, which defines the degree of comfortability with uncertainty or unpredictability people feel (Hofstede, 1980). Individuals with high uncertainty avoidance are considered to be very conservative, and they dislike risk, whereas individuals with a higher acceptance of uncertainty are usually open to taking risks (Khlif, 2016). The three factors uncertainty avoidance, framing and time pressure tend to impact on each other. The framing effect is also likely to be more pronounced when the decision making process has been subjected to extreme time pressure, since time pressure can decrease their capacity to perform careful analysis (Martino et al., 2006). The level of uncertainty avoidance also strengthens the influence of framing and time pressure because decisions will depend more on perception than analysis (Etemadi et al., 2009).

This study aims to empirically examine the effect of framing, time pressure, and uncertainty avoidance on investment evaluation decision making. The research subjects are final year accounting students who are assumed to have a basic understanding of investment evaluation and are able to represent future financial decision makers (Liyanarachchi & Milne, 2005). The urgency of this research is based on the fact that in the real world, many major investment decisions have proven to be detrimental to the company due to decision-making bias. An example is PT Krakatau Steel's Blast Furnace project, which failed because the decision was continued even though it was not economically feasible (Chaterine, 2022). The Theranos case study also revealed how framing and social pressure can cause investors to fail to evaluate objectively (Greenwald, 2022). This process is carried out periodically so that it can meet investor expectations regarding the investment (Salim et al., 2022).

Theoretically, this study strengthens the integration between fuzzy-trace theory and prospect theory. Fuzzy-trace theory states that individuals rely more on gist representations in making decisions, rather than on detailed (verbatim) information, so framing is very influential (Reyna & Brainerd, 1995). Meanwhile, prospect theory emphasizes that individuals have different preferences for risk depending on the way information is presented (Kahneman & Tversky, 1979). The practical contribution of this research is to suggest that companies pay attention to the way information is presented in the investment evaluation process, provide manager training in recognizing bias, and implement a decision support system that can reduce the effects of time pressure. In addition, the integration of behavioral finance into the accounting education curriculum is also important to prepare future decision makers who are not only technically reliable, but also aware of the potential psychological biases in the financial process (Bazerman & Moore, 2013). Thus, this research is expected to make a significant contribution to the development of behavioral finance-based financial management science in Indonesia and enrich the understanding of the influence of psychological factors on investment evaluation decision making. This is used as a basis for evaluation or assessment performance and feedback for future improvements (Sentosa et al., 2013). Early identification of potential company failures will help the company provide early indications of problems within it. Thus, corrective actions can be taken in company decision making (Kristanti et al., 2016).

LITERATURE REVIEW

This research is grounded on the principles of behavioral finance which serves to understand the behavior of financial decision makers in circumstances like uncertainty, time pressure and information framing. A particularly prominent framework is the Prospect Theory by Kahneman and Tversky (1979) according to which individuals are risk-averse when considering possible gains, but risk-seeking when facing possible losses. The theory brings out the importance of information framing in determining the risk preferences of individuals. In line with this, a research conducted by Levin et al. (1998) discovered that the positive framing can result in conservative decisions and the negative framing can produce riskier decisions.

According to Fuzzy-Trace Theory (Reyna & Brainerd, 1995), people recall the general meaning of information and not specific details. In decision-making with investments, individuals tend to use simplified depictions rather than using precise financial information. This is one of the reasons why information framing may be significant as far as people risk estimation and investment choices are concerned.

The issue of time pressure plays a major role in making a decision. Maule and Andrade (2016) clarify that it can make people rely on heuristics; cognitive shortcuts that can make them ignore valuable information. According to studies conducted by Wegier and Spaniol (2015), time pressure enhances cognitive load, which decreases the level of accuracy and quality of investment decisions. Similarly, Arifin and Narsa (2022) determined that framing and time pressure can be combined and raise the degree of bias in decision-making.

One of the cultural characteristics that play a significant role in influencing the willingness of people to take risks, especially in issues concerning finance, is avoidance of uncertainty. According to Hofstede (1980), the culture of high uncertainty avoidance is very conservative concerning risk and innovation. Khlif (2016) also states that uncertainty avoidance influences decision-making practices, but the results are inconsistent. Etemadi et al. (2009) also reveal that the organizational culture and tolerance to ambiguity influence the efficiency of the managerial accounting systems, including in the context of investment evaluations.

On the empirical side of the equation, different studies have found a distinct correlation between these variables and investment decision-making. As Martino et al. (2006) observed, individuals under time pressure are more likely to rely on intuitive approaches and cognitive biases. Carnehl (2023) further explains that time constraints during the investment process tend to shift decision makers' focus toward short-term outcomes, even when such choices are strategically suboptimal. In line with this, Zainuddin et al. (2022) proved that the framing effect is relevant in managerial situations, especially when dealing with situations that involve high levels of uncertainty.

The relevance of fuzzy-trace theory in financial decision-making is further supported by several other studies. Dryhurst et al. (2023) noted that a preference for gist-based memory contributes to simplifying complex information, which in turn may amplify the framing effect in risk assessment. When operating in the business environment where precision and speed are important, people would be more likely to use intuitive judgments and general impressions than do precise numerical analysis.

Moreover, Robison et al. (2010), in their study on risk preferences, found that the framing effect remained dominant even after participants were trained to conduct objective analysis. This suggests that psychological factors such as risk perception and uncertainty cannot be entirely removed through education or training. Thus, the design of the financial information systems should consider measures to reduce possible distortions by framing effect and time pressure.

Arifin and Narsa (2022), in Indonesia, found that framing has a strong impact when it comes to investment decisions being made among accounting students, particularly those involving consideration of potentially profitable projects and potentially unprofitable projects. They suggest that financial decision-making should be based on objective data, but still consider how the presentation of data can influence the perception of decision-makers.

Based on the literature, it is clear that the integration of behavioral finance theory into the investment decision-making framework is crucial. In an increasingly complex and fast-changing world, understanding psychological and cognitive factors is not only academically important, but also practically. Companies need to develop policies and reporting systems that consider these aspects so that investment decisions are more rational and avoid systematic bias.

As such, this literature review reveals a consensus in the literature that framing, time pressure, and uncertainty avoidance are important determinants of financial decision making. Findings from various studies support the use of experimental approaches to understand these dynamics in greater depth and applicability in organizational contexts.

For H1 (Positive vs Negative Framing):

The literature supports that positive framing makes individuals more confident and choose greater investment options. Prospect theory explains that positive framing triggers risk-seeking behavior when presented as potential gains, while negative framing encourages risk-averse behavior as individuals focus on potential losses (Kahneman & Tversky, 1979; Levin et al., 1998). Arifin & Narsa's (2022) research reinforces these findings in the context of investment decision experiments. The gist representation formed in positive framing makes respondents feel their decisions are profitable, not risky.

For H2 (Time Pressure):

Your results show the opposite of the hypothesis. Managers under time pressure make higher, not lower, investment decisions. In theory, time pressure reduces the cognitive ability for in-depth analysis and increases reliance on gist (Reyna & Brainerd, 1995) and quick heuristics (Maule & Andrade, 2016). This strengthens the argument that time pressure encourages intuitive, opportunistic decisions.

For H3 (Uncertainty Avoidance):

Your empirical results state that there is no significant difference based on cultural background (Javanese vs non-Javanese) representing uncertainty avoidance. This means that hypothesis H3 is not statistically supported. However, Hofstede's (1980) cultural theory remains relevant in explaining that at an aggregate level, cultures with high uncertainty avoidance tend to make conservative decisions. However, in the context of globalization, cultural homogenization may reduce significant differences between groups.

METHODS

This study uses a quantitative experimental approach with a 2x2x2 factorial design that tests three independent variables, namely framing (positive vs. negative), time pressure (present vs. absent), and uncertainty avoidance (high vs. low), on one dependent variable, namely investment evaluation decisions.

3.1 Research Design

This study was a true experimental design with a between-subjects approach. Participants were randomly divided into eight groups based on a combination of the three independent variables. This study aims to determine the direct effect and interaction between variables on investment decisions.

3.2 Research Subjects

The subjects in this study were 96 final year accounting students from one of the public universities in Indonesia. Students were chosen because they are considered to have an adequate understanding of the concept of investment evaluation and can be a proxy for financial decision makers in the future. The sampling technique used is purposive sampling with the criteria of students who have taken Financial Management and Investment Analysis courses.

3.3 Variable Operationalization

- Framing: Framing manipulation is done through presenting investment information in the form of gains (positive framing) and losses (negative framing) even though the objective information values are identical.
- Time Pressure: The manipulation was done by giving a strict time limit (2 minutes) for the experimental group and no time limit for the control group.
- Uncertainty Avoidance: Measured through a questionnaire based on Hofstede's scale classified into high and low levels.
- Investment Evaluation Decision: Measured by scores on case study scenario sheets containing alternative investment decisions.

3.4 Research Instruments The research used instruments in the form of:

1. Investment evaluation scenario with two framing versions.
2. Uncertainty avoidance questionnaire (5-point scale).
3. Investment decision answer sheet.
4. Online stopwatch and timer for time pressure manipulation.

3.5 Data Collection Techniques

Data were collected through a closely supervised simulated classroom experiment. Each group was given a different scenario, time, and instructions according to the treatment.

3.6 Data Analysis Techniques

Data were analyzed using descriptive and inferential statistical techniques. The Three-Way ANOVA test was used to determine the effect of each independent variable as well as the interaction between variables on the dependent variable. Instrument validity and reliability tests were conducted at the pre-experiment stage.

3.7 Research Hypothesis

- H1: Managers who receive positive framing will make greater investment decisions than negative framing.
- H2: Managers with time pressure will make lower investment decisions than without time pressure.
- H3: Managers with high uncertainty avoidance will make lower investment decisions than those with low uncertainty avoidance.

RESULTS

4.1 Descriptive statistics

Summarize the tendencies in participants' decisions based on different combinations of treatments. This study includes eight experimental combinations derived from three independent variables: framing (positive/negative), time pressure (present/absent), and level of uncertainty avoidance (high/low).

Table 1. Average Investment Evaluation Decision by Treatment

No.	Framing	Time Pressure	Uncertainty Avoidance	Average Decision
1	Positive	Available	High	62.4
2	Positive	Available	Low	67.1
3	Positive	None	High	64.3
4	Positive	None	Low	68.7
5	Negative	Available	High	69.8
6	Negative	Available	Low	75.6
7	Negative	None	High	67.9
8	Negative	None	Low	72.5

Notes: As shown in the table above, the group exposed to negative framing under time pressure and with low uncertainty avoidance had the highest investment decision scores. This indicates that the combination of a negative context and time pressure may lead risk-tolerant individuals to make more aggressive investment decisions.

4.2 3-way ANOVA Test Results

The 3-way ANOVA analysis was conducted to test the effect of each independent variable (framing, time pressure, uncertainty avoidance) and its interaction on investment decisions.

Table 2. 3-way ANOVA test results

Source of Variation	df	F-Count	Sig. (p)
Framing	1	8.312	0.005
Time Pressure	1	5.921	0.017
Uncertainty Avoidance	1	2.348	0.129
Framing * Time Pressure	1	4.821	0.032
Framing * Avoidance	1	1.956	0.164
Time Pressure * Avoidance	1	2.127	0.145
Framing * Pressure * Avoidance	1	1.621	0.189
Error	88	-	-
Total	95	-	-

Description:

Framing has a significant influence on investment decisions ($p < 0.01$).

Time pressure also showed a significant effect ($p < 0.05$).

Uncertainty avoidance is not significant but has a relevant pattern of influence direction.

The interaction between framing and time pressure is significant, indicating that negative framing has a stronger effect under time pressure conditions.

DISCUSSION

The purpose of this discussion is to explore the research findings in depth, drawing on relevant theories and previous studies. Framing, time pressure and uncertainty avoidance which are the three independent variables that were considered gave mixed results in regards to investment evaluation decisions. The discussion is divided into four key parts as follows- interpretation of the key findings, the integration of the theories, the comparison with the previous studies, and the implications of the research.

A. The Effect of Framing on Investment Evaluation Decisions

The results point out that the framing has a huge influence on investment decision-making. The subjects who were presented to the negatively framed information were more likely to make higher investment choices in comparison to the subject received positive frame. This is consistent with the Prospect Theory by Kahneman and Tversky (1979) that assumes that individuals experience loss more than the gain. In this experiment, negative framing caused participants to become more risky in their behaviors in order to avert possible losses. This proves the point about human beings not being a completely rational choice in making financial decisions because they are strongly affected by the way things are presented. Levin et al. (1998) also proved that framing can considerably change the decision outcomes. Framing could make the same information result in opposite decisions. This implies in a managerial environment that financial statements and other feasibility studies of projects should be presented keenly to prevent biasness in the decision making process.

B. The Effect of Time Pressure on Investment Evaluation Decisions

The findings indicate that time pressure significantly influences investment decision-making. Participants made decisions more quickly and decisively when under time pressure. This behavior aligns with the heuristics and biases theory, which states that when individuals face time constraints, they tend to rely on intuition and mental shortcuts (Maule & Andrade, 2016). Time pressure is a common aspect of business life, particularly during financial reporting and budgeting periods. These findings suggest that time stress may reduce the quality of decision-making, as

emotional reactions can take precedence over logical reasoning. Therefore, organizations should pay close attention to how time is allocated in investment decision-making.

C. Framing and Time Pressure Interaction

One of the interesting findings in this study is the significant interaction between framing and time pressure. When these two conditions were present simultaneously, the framing effect became stronger. In this situation, participants were more reactive to negative framing and made higher decision-making decisions. This condition suggests that dual cognitive pressure can magnify the effects of bias in decision-making. When time is limited, participants not only rely on shortcuts, but are also more susceptible to the emotional influence of framing. The study by Martino et al. (2006) also observed that framing effects are more intense in time pressure situations.

D. Effect of Uncertainty Avoidance

Statistically, the uncertainty avoidance variable does not show a significant effect on investment decisions. However, the general trend shows that participants with low levels of uncertainty avoidance tend to make higher decisions. This result supports Hofstede's cultural framework, although it is not statistically significant. This insignificance may be explained by the cultural homogeneity of the participants, given that all participants came from one educational institution in Indonesia. In Hofstede's study, the influence of culture becomes more apparent when compared across countries. In addition, the younger generation who participated in this study may have a higher level of openness to uncertainty than the general population.

E. Practical Implications in Financial Decision Making

From the results obtained, several important practical implications can be drawn. First, organizations need to pay attention to how information is presented in financial reports, investment proposals, or internal communications. Framing can create significant bias, and by presenting information neutrally, decision makers can provide a more objective evaluation. Second, the time available in the decision-making process must be managed properly. Unnecessary time pressure can reduce the quality of the evaluation. Therefore, the development of work schedules and investment approval systems should take into account adequate analysis time. Third, although not significant, cultural background and personal characteristics such as tolerance for uncertainty should be considered. In managing managerial teams, leaders can identify these characteristics to determine roles in strategic decision-making.

F. Theoretical Contribution

This research contributes to the development of fuzzy-trace theory and prospect theory in the context of financial decision making. Fuzzy-trace theory explains that individuals rely more on general perceptions (gist) than detailed information (verbatim). In time-pressure situations, the decision-making process will use more gist and be more susceptible to framing. The integration of this theory with prospect theory allows for a more complete explanation of the phenomenon of bias in investment evaluation. Individuals assess the situation based on framing, then execute a response based on a brief perception formed by situational pressure.

G. Comparison with Previous Research

The findings of this study are in line with the study by Arifin and Narsa (2022) which showed a significant effect of framing and time pressure on accounting students' decisions. Likewise, Dryhurst et al. (2023) support the relevance of fuzzy-trace theory in the context of financial risk evaluation. However, unlike the findings of Khlif (2016), who observed a strong cultural influence on risk preferences, this study did not find such significance. This discrepancy may be attributed to differences in population, methodology, and the controlled nature of the experimental environment.

CONCLUSION

In this paper, the researcher examines how three behavioral variables (framing, time pressure, and uncertainty avoidance) influence the investment evaluation decision by conducting an experiment that relies on the fuzzy-trace theory and prospect theory. The analysis results in a few main conclusions: (1) framing is an important factor that influences the decision to invest. Negative framing participants are likely to make higher investment choices than positive framing participants. These results emphasize the role of presentation information in financial behavior, which supports fundamental propositions of prospect theory.

Second, time pressure also had a significant effect on decision-making. When given tight time constraints, participants tended to rely on intuition and cognitive shortcuts, which led to larger investment decisions. This suggests that time pressure can reinforce biased decision-making tendencies, especially when information is presented in an emotional context.

Third, although not statistically significant, there is a tendency that individuals with low uncertainty avoidance are bolder in making investment decisions. This reinforces the argument that personal character and cultural values still play a role in the context of financial decisions, although their influence can be contextual and dependent on the research design.

Fourth, the combination of framing and time pressure has a significant impact on investment decisions. Participants under time pressure who were exposed to negatively framed information were more likely to make aggressive investment choices. This finding raises concerns for financial management, as extreme conditions and emotional pressure may lead to decisions that deviate from rational analysis. Future research should include professional investors or financial practitioners to enhance the practical relevance of the findings. Also a longitudinal design is advisable in order to provide more knowledge on the continuity of these behavioral patterns over a period.

In managerial practice, organizations are advised to present financial information in an objective and balanced manner to avoid framing effects. In addition, sufficient time needs to be given to decision makers so that the investment evaluation process can be optimized. Finally, it is important for managers and decision makers to be provided with training on behavioral biases and their mitigation strategies. Overall, this study confirms that the behavioral finance approach provides important insights in understanding and improving the investment decision-making process. The integration between theory and practice is expected to support the creation of a financial management system that is more accurate, adaptive, and free from behavioral distortions.

REFERENCE

- Adams, E. M., & Goffman, E. (1979). *Frame Analysis: An Essay on the Organization of Experience*. In *Philosophy and Phenomenological Research* (Vol. 39, Issue 4). <https://doi.org/10.2307/2106908>
- Agus, W. (2013). *Statistika Terapan : Konsep dan Aplikasi dalam Penelitian Bidang Pendidikan, Psikologi dan Ilmu Sosial Lainnya*. PT Alex Media Komputindo.
- Aji. (2022). Kerugian Negara di Kasus Krakatau Steel Ditaksir Mencapai Rp 6,9 Triliun. *Tempo News*. <https://www.tempo.co/hukum/kerugian-negara-di-kasus-krakatau-steel-ditaksir-mencapai-rp-6-9-triliun-321453>
- Akbar, R., Siroj, R. A., Win Afgani, M., & Weriana. (2023). Experimental Research Dalam Metodologi Pendidikan. *Jurnal Ilmiah Wahana Pendidikan*, 9(Vol 9 No 2 (2023): Jurnal Ilmiah Wahana Pendidikan), 465–474. <https://jurnal.peneliti.net/index.php/JIWP/article/view/3165>

- Akerlof, G. A., & Shiller, R. J. (2009). How Human Psychology Drives The Economy, and Why it Matters for Global Capitalism. In *Journal GEEJ* (9th ed., Vol. 7, Issue 2). Princeton University Press.
- Amos Tversky, D. K. (1986). Rational Choice and the Framing of Decisions. *The Journal of Business*, 59(4), 251–278.
- Anas, D., Insani, S., Nazhatut, U., Sampang, T. A., & Merugikan, P. Y. (2023). PENGARUH FRAMING EFFECT DAN ADVERSE SELECTION DALAM PENGAMBILAN KEPUTUSAN INVESTASI (STUDI EKSPERIMENTAL). *MULTIFINANCE Jurnal Ekonomi, Manajemen Dan Perbankan*, 1(1), 50–58.
- Ang, S., & Dyne, L. Van. (2015). *Handbook of Cultural Intelligence Theory, Measurement, and Applications* (1st ed.). Taylor Francis. [https://doi.org/https://doi.org/10.4324/9781315703855](https://doi.org/10.4324/9781315703855)
- Anja, D., Katrin, D., & Holger, D. (2009). Compensatory versus noncompensatory models for predicting consumer preferences. *Judgment and Decision Making*, 4(3), 200–213.
- Arifin, & Narsa, I. M. (2022). The Framing Effect and Time Pressure on The Investment Decision: A Test for Prospect Theory and Fuzzy-Trace Theory. *Quality - Access to Success*, 23(190), 407–416. <https://doi.org/10.47750/QAS/23.190.43>
- Arwani, A., Ifadah, A., & Sa'adah, A. N. (2020). Aspek Keperilakuan Pada Pengambilan Keputusan Dan Para Pengambil Keputusan. *Jurnal Akuntansi Syariah*, 53(5), 1–116.
- Ashton, R. H., & Kramer, S. S. (1980). Students As Surrogates in Behavioral Accounting Research: Some Evidence. *Journal of Accounting Research*, 18(1), 1. <https://doi.org/10.2307/2490389>
- Asisah, N., Arsi, P. A., & Sakka, A. (2022). PERUBAHAN BUDAYA ATAU KEBIASAAN, DAN ADAPTASI BUDAYA BARU PADA MASYARAKAT DI ERA GLOBALISASI DALAM PERSPEKTIF ANTROPOLOGI. *Relinesia: Jurnal Kajian Agama Dan Multikulturalisme Indonesia*, 1(1), 130–209.
- Bazerman, M. H. (1984). The Relevance of Kahneman and Tversky's Concept of Framing to Organizational Behavior. *Journal of Management*, 10(3), 333–343. <https://doi.org/10.1177/014920638401000307>
- Bazerman, M. H., & Moore, D. A. (2013). *Judgment in Managerial Decision Making* (L. Johnson & M. Solarz (eds.); Eight). Wiley.
- Belli, A., Carrillat, F. A., Zlatevska, N., & Cowley, E. (2024). How Does Time Pressure Influence Risk Preferences? Answers from a Meta-Analysis. *Journal of Consumer Research*, 50(6), 1172–1197.
- Ben Zur, H., & Breznitz, S. J. (1981). The effect of time pressure on risky choice behavior. *Acta Psychologica*, 47(2), 89–104. [https://doi.org/10.1016/0001-6918\(81\)90001-9](https://doi.org/10.1016/0001-6918(81)90001-9)
- Benson, L., & Ordóñez, L. (1997). Decisions under Time Pressure : How Time Constraint Affects Risky Decision Making. *Organizational Behavior and Human Decision Processes*, 71(2), 121–140.
- Breuer, W., Riesener, M., & Salzmann, A. J. (2014). Risk aversion vs. individualism: what drives risk taking in household finance? *European Journal of Finance*, 20(5), 446–462. <https://doi.org/10.1080/1351847X.2012.714792>
- Briefer. (2024). 6 Dimensi Budaya Hofstede, Ini Pengertian dan Contohnya! Stories from Breefer. <https://stories.briefer.id/2024/05/31/dimensi-budaya-hofstede/>

- Brigham, E. F., Ehrhardt, M. (2017). *Financial Management : Theory & Practice* (15th ed.). Cengage Learning.
- Chaterine, M. (2022). Kasus Korupsi Pembangunan Pabrik BFC PT Krakatau Steel Diduga Rugikan Negara Rp 6,9 Triliun. Kompas.Com. <https://nasional.kompas.com/read/2022/07/19/11300731/kasus-korupsi-pembangunan-pabrik-bfc-pt-krakatau-steel-diduga-rugikan-negara>
- Chong, D., & Druckman, J. N. (2007). Framing theory. *Annual Review of Political Science*, 10, 103–126. <https://doi.org/10.1146/annurev.polisci.10.072805.103054>
- Christoph Carnehl, J. S. (2023). On Risk and Time Pressure: When to Think and When to Do. *Journal of the European Economic Association*, 21(1), 1–47. <https://doi.org/https://doi.org/10.1093/jeea/jvac027>
- CNN Indonesia. (2022). Eks Dirut Krakatau Steel Jadi Tersangka Korupsi Pembangunan Pabrik BFC. CNN Indonesia. <https://www.cnnindonesia.com/nasional/20220719074803-12-823171/eks-dirut-krakatau-steel-jadi-tersangka-korupsi-pembangunan-pabrik-bfc>
- Cooper, D. R. & Schindler, P. S. (2001). *Business Research Methods*. McGrawHill College.
- Corbin, J. C., Reyna, V. F., Weldon, R. B., & Brainerd, C. J. (2015). How reasoning, judgment, and decision making are colored by gist-based intuition: A fuzzy-trace theory approach. *Journal of Applied Research in Memory and Cognition*, 4(4), 344–355. <https://doi.org/10.1016/j.jarmac.2015.09.001>
- Cristofaro, M., Giardino, P. L., Malizia, A. P., & Mastrogiorgio, A. (2022). Affect and Cognition in Managerial Decision Making: A Systematic Literature Review of Neuroscience Evidence. *Frontiers in Psychology*, 13(March). <https://doi.org/10.3389/fpsyg.2022.762993>
- Cummings, L. L., Harnett, D. L., & Hamner, W. C. (1976). Managerial Decision Making Under Intransitive Conditions: an International Study of the Voter's Paradox. *Decision Sciences*, 7(3), 510–523. <https://doi.org/10.1111/j.1540-5915.1976.tb00697.x>
- Dame W. Manullang, Herman Karamoy, W. P. (2019). ANALISIS KELAYAKAN INVESTASI AKTIVA TETAP (STUDI KASUS PADA CINCAU JO , BLENCHO DAN BROWNICE UNIT KREATIVITAS (CASE STUDY ON CINCAU JO , BLENCHO AND BROWNICE SAM RATULANGI UNIVERSITY STUDENT CREATIVITY UNIT). *Jurnal EMBA*, 7(2), 2561–2570.
- Darmanto, R., Lambey, L., & Tangkuman, S. (2016). Peran Informasi Akuntansi Manajemen Mengenai Pengambilan Keputusan Investasi Aktiva Tetap Pada Pt Anugerah Trikarya Lestari. *Jurnal EMBA*, 5(1), 215–224.
- Dasman, S., Puspitasari, D. M., Wiyatno, T. N., & Widiastuti. (2024). *Manajemen Investasi Modern* (Melvin Mirsal (ed.); Pertama). PT Media Penerbit Indonesia.
- Dhea Tita Putri. (2021). PENGAMBILAN KEPUTUSAN INVESTASI DENGAN MENGGUNAKAN AKUNTANSI DIFERENSIAL STUDI KASUS PADA PT. PUTRA RESTU IBU ABADI (PRIA). In *Pharmacognosy Magazine* (Vol. 75, Issue 17).
- Diederich, A. (2003). MDFT account of decision making under time pressure. *Psychonomic Bulletin and Review*, 10(1), 157–166. <https://doi.org/10.3758/BF03196480>
- Dror, I. E., Bussemeyer, J. R., & Basola, B. (1999). Decision making under time pressure: An independent test of sequential sampling models. *Memory and Cognition*, 27(4), 713–725.

<https://doi.org/10.3758/BF03211564>

- Du, W. S., & Hu, B. Q. (2018). Ecological Rationality : Fast-and-Frugal Heuristics for Ecological Rationality : Fast-and-Frugal Heuristics for Max Planck Institute for Human Development Acknowledgements : Academy of Management Journal.
- Edland,A, Svenson, O. (1993). Judgment and decision making under time pressure: Studies and findings. Plenum Press.
- Elisabeth, V. D. (2008). Analisa Keputusan Investasi Penambahan Mesin Produksi CV. THG. Universitas Atma Jaya.
- Emser, A.-K., Heintzen, S., Beeser, C., Stoberock, B., & Marquardt, N. (2021). Higher, Faster, Further: Occupational Ethical Decision-Making under Time Pressure in Type A versus Type B Personalities. *Psychology*, 12(10), 1678–1710. <https://doi.org/10.4236/psych.2021.1210102>
- Endah, S. (2011). Eskalasi dan De-eskalasi Komitmen Pada Individu Yang Berkarakter Internal Locus of Control Dalam Kasus Investasi Bertahap. Simposium Nasional Akuntansi XIV Aceh, 1–40.
- Entman, R. M. (1993). Framing: Toward Clarification of a Fractured Paradigm. *Journal of Communication*, 43(4), 51–58. <https://doi.org/10.1111/j.1460-2466.1993.tb01304.x>
- ERKAN, G., TEMEL, F., & MOINIZADEH, M. (2017). the Impact of Culture on Ethical Decision-Making: a Study on Accounting Students in Turkey, United Kingdom and Iran. *International Refereed Academic Social Sciences Journal*, 0(28), 0–0. <https://doi.org/10.17364/iib.2017.4.1>
- Etemadi, H., Dilami, Z. D., Bazaz, M. S., & Parameswaran, R. (2009). Culture, management accounting and managerial performance: Focus Iran. *Advances in Accounting*, 25(2), 216–225. <https://doi.org/10.1016/j.adiaac.2009.08.005>
- Fan, J. X., & Jian Xiao, J. (2005). TCAI Working Paper 5-3 A CROSS-CULTURAL STUDY IN RISK TOLERANCE: COMPARING CHINESE AND AMERICANS. Take Charge America Institute for Consumer Financial Education and Research, 5(December), 1–29.
- Feriyana, I., Widiasmara, A., & Novitasari, M. (2020). Pengaruh Mental Accounting Dan Framing Effect Terhadap Pengambilan Keputusan Investasi. SIMBA: Seminar Inovasi Manajemen Bisnis Dan Akuntansi, II.
- Fina Ratnasari, I Gede Adi Indrawan, L. P. W., & Sasana, P. H. (2024). Akuntansi Keperilakuan Akuntansi. In *Journal of Chemical Information and Modeling* (Pertama, Vol. 53, Issue 1). Unpam Press.
- Finucane, M. L., Alhakami, A., Slovic, P., & Johnson, S. M. (2000). The affect heuristic in judgments of risks and benefits. *Journal of Behavioral Decision Making*, 13(1), 1–17. [https://doi.org/10.1002/\(SICI\)1099-0771\(200001/03\)13:1<1::AID-BDM333>3.0.CO;2-S](https://doi.org/10.1002/(SICI)1099-0771(200001/03)13:1<1::AID-BDM333>3.0.CO;2-S)
- Fishburn, P. C. (2011). Normative Theories of Decision Making Under Risk and Under Uncertainty. *Decision Making*, 78–98. <https://doi.org/10.1017/cbo9780511598951.006>
- Garrison, R. H., Noreen, E. W., Brewer, P. C., & McGowan, A. (2010). Managerial Accounting. In *Issues in Accounting Education* (Vol. 25, Issue 4). <https://doi.org/10.2308/iace.2010.25.4.792>
- Ghozali, I. (2021). Aplikasi Analisis Multivariance Dengan Program IBM SPSS 26 (Edisi 10). Badan Penerbit Universitas Diponegoro.

- Gigalová, V. (2017). Intuition and managerial decision-making. *Human Affairs*, 27(3), 301–316. <https://doi.org/10.1515/humaff-2017-0025>
- Guo, Y., Lu, Z., Kuang, H., & Wang, C. (2020). Information avoidance behavior on social network sites: Information irrelevance, overload, and the moderating role of time pressure. *International Journal of Information Management*, 52(July 2019), 102067. <https://doi.org/10.1016/j.ijinfomgt.2020.102067>
- Haleh Rastegary, F. J. L. (1993). The interactions among time urgency, uncertainty, and time pressure. *Springer*, 217–239.
- Sentosa, A., Purwanto, M., & Mulia, T. W. (2013), The Effect of Budget Participation on Managerial Performance Through Organizational Commitment and Leadership Style as Moderating Variables. *Journal of Contemporary Accounting*, 5(1), 01-27. <https://doi.org/10.19184/bisma.v11i12.6308>
- Lubis, F., H. & Suzan L. (2016). Pengaruh Penerapan Akuntansi PERTANGGUNGJAWABAN TERHADAP KINERJA MANAJERIAL (Shah Kasus pada PT. Pericbunan Sumatera Utara) THE INFLUENCE OF APPLICATION OF ACCOUNTING RESPONSIBILITY TOWARDS (Case Sudy on PT Perkebunan Sumatera Utara. E-Proceeding of Managemew. 2) 1533-1529
- Ramadita, E. S., & Suzan, L. (2019). Pengaruh Biaya Produksi, Debt to equity ratio, dan Perputaran Persediaan Terhadap Profitabilitas. *Jurnal ASET (Akuntansi Riset)*, 11(1), 159-168. <https://doi.org/10.17509/jaset.v1i1l.17440>
- Kristanti, F. T., Effendi, N., Herwany, A., & Febrian, E. (2016). Does corporate governance affect the financial distress of indonesian company? A survival analysis using cox hazard model with time-dependent covariates. *Advanced Science Letters*, 22(12), 4326–4329. <https://doi.org/10.1166/asl.2016.8138>
- Kristanti, F. T., Rahayu, S., & Isyнуwardhana, D. (2019). The survival of small and medium business. *Polish Journal of Management Studies*, 20(2), 311–321. <https://doi.org/10.17512/pjms.2019.20.2.26>
- Salim, D. F., Iradianty, A., Kristanti, F. T., & Candraningtias, W. (2022). Smart beta portfolio investment strategy during the COVID-19 pandemic in Indonesia. *Investment Management and Financial Innovations*, 19(3), 302–311. [https://doi.org/10.21511/imfi.19\(3\).2022.25](https://doi.org/10.21511/imfi.19(3).2022.25)