

The Influence of Overconfidence Bias and Digital Literacy on Decision-Making Quality Among Digital Business Practitioners

Jessica Joylynn Kaligis¹⁾, Audika Briantari Zaen²⁾

^{1,2)}Digital Business / Faculty of Economics and Business, Universitas Negeri Surabaya, Indonesia

*Corresponding Author

Email: jessica.23146@unesa.ac.id

Abstract

This study aims to analyze the influence of Overconfidence Bias and Digital Literacy on Quality Decision Making among digital business actors. The research employed a quantitative approach. Data were collected through an online questionnaire distributed to 144 digital business actors, including marketplace sellers, online shop owners, resellers, dropshippers, and digital-based MSMEs. The research instrument consisted of 13 Likert-scale items adapted from previous studies. Data were analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method with SmartPLS 3 software. The results indicate that Overconfidence Bias has a negative and significant effect on Decision-Making Quality ($\beta = -0.372$, $t = 5.348$, $p < 0.001$), while Digital Literacy has a positive and significant effect on Decision-Making Quality ($\beta = 0.511$, $t = 9.357$, $p < 0.001$). The structural model explains 41.2% of the variance in Decision-Making Quality ($R^2 = 0.412$), indicating a moderate level of explanatory power. Furthermore, Digital Literacy emerged as the stronger predictor of Decision-Making Quality. These findings suggest that enhancing digital literacy and controlling cognitive biases are crucial for producing more rational, objective, and high-quality business decisions in the digital era.

Keywords: Overconfidence Bias, Digital Literacy, Quality Decision Making, Digital Business Practitioners;

INTRODUCTION

In the context of modern business, decision making has become increasingly complex as organizations face uncertainty, multiple alternatives, and pressure to make decisions quickly and accurately (Shepherd et al., 2023). Decision quality is determined not only by the speed of action but also by the quality of information, the relevance of alternatives, and an individual's ability to evaluate the consequences of the decisions made (Sepucha & Fowler, 2013). In this study, decision-making quality is viewed as the quality of the process undertaken by individuals when making business decisions rather than the success of the decision after its implementation. Referring to (Wang et al., 2024), decision quality is reflected in an individual's ability to generate decisions that effectively address problems, have clear objectives, consider adequate alternative solutions, and utilize relevant and unbiased information. The better an individual's ability to meet these indicators, the higher the quality of decision making. Conversely, lower scores indicate lower decision-making quality.

However, in practice, decision-making processes often do not operate optimally because individuals have limitations in processing information and evaluating situations rationally (Spetzler et al., 2016). This condition is particularly evident among digital business actors, such as marketplace sellers, online shop owners, resellers, dropshippers, and digital-based MSMEs, who are required to make rapid decisions amid dynamic market changes and continuous flows of digital information.

In situations characterized by pressure and uncertainty, individuals tend to rely on their personal beliefs when making decisions. One of the most common biases is overconfidence bias, a condition in which individuals perceive their abilities or knowledge to be higher than they actually are (Twardawski & Kind, 2023). This bias causes individuals to place excessive trust in their own judgments while disregarding other relevant information (Karki et al., 2024). Overconfident individuals also tend to underestimate risks and become overly optimistic about the outcomes of their decisions (Twardawski & Kind, 2023). Among digital business actors, this

condition may arise when business decisions are based solely on personal experience, short-term market trends, or assumptions derived from previous successes without conducting a thorough evaluation of available information.

In addition to cognitive biases, the development of digital technology has transformed how individuals obtain and utilize information in decision-making processes. Digital literacy has become an essential competency because individuals are expected to access, understand, evaluate, and effectively use digital information (Ng, 2012). This capability extends beyond technological proficiency and includes the ability to critically assess digital information (Tinmaz et al., 2022). Previous studies have shown that digital literacy contributes to more effective information utilization and supports better decision-making processes (Yuan et al., 2021). However, not all digital business actors possess sufficient digital literacy skills to distinguish between valid and invalid information when making business decisions (Tayyem et al., 2025).

Several empirical studies have further confirmed the importance of digital literacy in decision-making contexts. Abdulkareem & Ramli. (2021) reported that digital literacy positively affects information processing and organizational decision effectiveness in e-government systems. Yuan et al. (2021) found that digital literacy significantly improves analytical thinking and decision-making capabilities among university students. Furthermore, Isabella et al. (2024) demonstrated that digital literacy strengthens individuals' ability to critically evaluate information and supports better decision making in digital environments.

Previous research on overconfidence bias and digital literacy has generally examined these variables separately. Studies on overconfidence have primarily focused on strategic decision making and individual behavior in risk-related situations (Karki et al., 2024; Twardawski & Kind, 2023). Meanwhile, digital literacy research has often been associated with technology usage, work performance, and digital behavior (Ng, 2012; Tinmaz et al., 2022). Although these studies provide evidence regarding the role of digital literacy in decision-related outcomes, most investigations focus on educational, governmental, or organizational settings. Empirical studies examining the combined influence of digital literacy and overconfidence bias on decision-making quality among digital business actors remain scarce. Therefore, this study seeks to address this gap by analyzing the effects of overconfidence bias and digital literacy on decision-making quality among digital business actors.

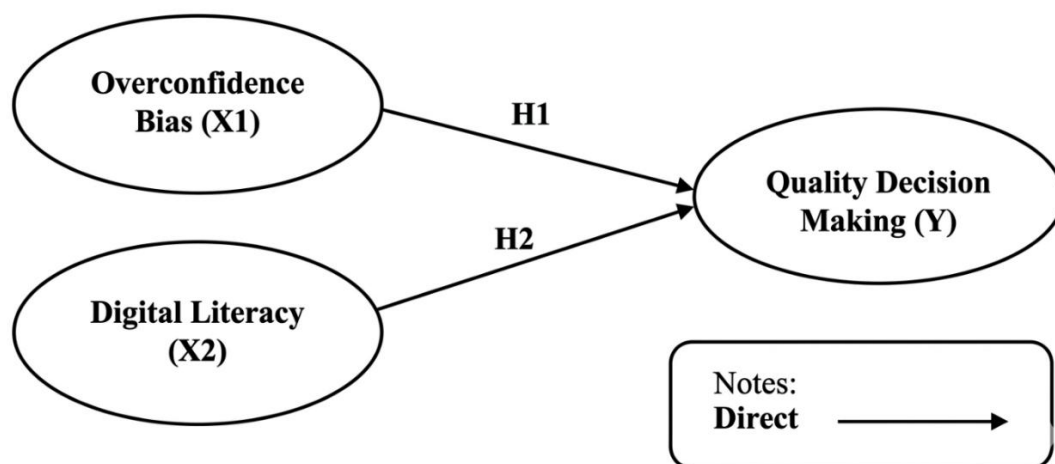


Figure 1. Conceptual Framework

Source: Developed by the author (2026)

RESEARCH METHODS

Overconfidence Bias and Decision-Making Quality

Overconfidence bias refers to a condition in which individuals possess a level of confidence that exceeds the actual accuracy of their judgments and abilities (Twardawski & Kind, 2023). This bias arises because individuals tend to attribute success to their personal capabilities while overlooking external factors, thereby increasing their confidence disproportionately (Twardawski & Kind, 2023). In decision-making processes, this condition causes individuals to rely excessively on their own judgments while neglecting relevant information and potential risks (Karki et al., 2024).

Within organizational contexts, overconfidence has been shown to reduce the quality of strategic decisions because individuals tend to overestimate their ability to create value and underestimate the likelihood of failure (Twardawski & Kind, 2023). Furthermore, cognitive biases generally represent deviations from rationality that can lead to less objective and suboptimal decisions (Karki et al., 2024). Therefore, higher levels of overconfidence bias are expected to increase the likelihood of lower decision-making quality.

H1: Overconfidence Bias has a negative effect on the quality of decision making among digital business actors.

Digital Literacy and Decision-Making Quality

The advancement of digital technology has led individuals to become increasingly dependent on digital-based information for decision making. Digital literacy is defined as the ability to access, understand, evaluate, and effectively utilize digital information (Tayyem et al., 2025). This capability is essential because individuals are exposed to large volumes of diverse information, requiring them to critically assess information quality (Tinmaz et al., 2022).

Research indicates that individuals with strong digital literacy skills are more capable of utilizing information effectively during decision-making processes (Yuan et al., 2021). Conversely, limitations in digital literacy may lead to misunderstandings of information and result in lower-quality decisions (Ng, 2012). Therefore, the higher an individual's level of digital literacy, the better the quality of decision making produced.

H2: Digital Literacy has a positive effect on the quality of decision making among digital business actors.

RESULTS AND DISCUSSION

Research Approach and Design

This study employed a quantitative research approach using an explanatory research design. According to Creswell & Creswell. (2017), quantitative research is a systematic approach used to examine relationships among variables through numerical data and statistical analysis. Explanatory research aims to identify causal relationships between independent and dependent variables and test hypotheses developed from existing theories. In line with this objective, the present study examined the effects of Overconfidence Bias and Digital Literacy on Decision-Making Quality among digital business actors using Partial Least Squares Structural Equation Modeling (PLS-SEM).

Population and Sample

The population of this study consisted of digital business actors, including e-commerce sellers, digital-based Micro, Small, and Medium Enterprises (MSMEs), as well as resellers and dropshippers. The population was considered infinite because the number of digital business actors continues to grow. The sampling technique employed was non-probability sampling using a purposive sampling method, where respondents were selected based on specific criteria. The

inclusion criteria were: (1) individuals actively operating a digital business; (2) having experience in making business decisions; and (3) utilizing digital platforms in their business activities. The minimum sample size targeted for this study was 100 respondents to satisfy the requirements for SEM analysis.

Respondent Profile

This study involved 144 respondents who were digital business actors. Based on the screening results, 99.3% of respondents reported actively operating a digital platform-based business, and all respondents (100%) had experience making decisions related to their business activities. In terms of demographics, the respondents were predominantly female (70.8%), while males accounted for 29.2%. Most respondents were aged 18–27 years (66.7%), followed by those aged 28–30 years (20.8%), under 18 years (8.3%), and above 31 years (4.2%). Regarding educational background, the majority had completed senior high school or vocational high school education (64.6%), followed by bachelor's degree holders (26.4%) and diploma graduates (9.0%). Based on business type, most respondents operated online shops through platforms such as Instagram, TikTok, or WhatsApp (50%), followed by marketplace sellers on platforms such as Shopee and Tokopedia (25%), while resellers/dropshippers and digital-based MSMEs each accounted for 12.5%. Furthermore, most respondents had been operating their businesses for 6–12 months (58.3%), followed by more than 3 years (25%), less than 6 months (8.3%), and 1–3 years (8.3%). These findings indicate that the sample was dominated by young digital business actors who actively utilize digital platforms and possess direct experience in business decision making.

Data Collection Technique

Data were collected using a survey method through an online questionnaire distributed via Google Forms. This method was selected because it enables broader respondent coverage, improves efficiency, and facilitates data collection from digital business actors located across various regions. The questionnaire was developed based on indicators adapted from previous studies and adjusted to the digital business context. Respondents were asked to provide answers based on their experiences, perceptions, and actual conditions encountered while managing digital businesses and making business decisions.

Research Instrument

The research instrument employed a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The instrument was adapted from previous studies and modified to fit the digital business context. The Overconfidence Bias variable was measured using four items adapted from Lhardy et al. (2025), reflecting individuals' tendency to overestimate their capabilities. Digital Literacy was measured using four items adapted from Deschenes. (2024), reflecting the ability to access and evaluate digital information. Quality Decision Making was measured using five items adapted from Wang et al. (2024), covering information quality, evaluation of alternatives, and decision accuracy. Consequently, the total number of measurement items used in this study was 13.

Data Analysis Technique

Data analysis was conducted using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method with SmartPLS software. PLS-SEM was selected because it can analyze complex models and does not require strict assumptions regarding normal data distribution. The analysis was carried out in two stages: evaluation of the measurement model (outer model) and evaluation of the structural model (inner model). The outer model evaluation was conducted to assess the validity and reliability of the measurement instruments through loading factor analysis, Average Variance Extracted (AVE), Composite Reliability, and Cronbach's Alpha. Subsequently, the inner model evaluation was performed to test the proposed hypotheses using path coefficients, t-statistics, and p-values obtained through the bootstrapping procedure.

Results

In the first stage, the measurement model was evaluated using SmartPLS 3 to ensure that each construct validly and reliably measured the intended research variables. Therefore, convergent validity was assessed through outer loading values, Composite Reliability (CR), Cronbach's Alpha (CA), and Average Variance Extracted (AVE). According to Lata et al. (2021), an indicator satisfies convergent validity if it has an outer loading value greater than 0.50. The results show that all indicators exceeded the recommended minimum threshold, with outer loading values ranging from 0.762 to 0.863. Therefore, all indicators were considered valid and capable of representing their respective constructs.

Next, construct reliability was evaluated using Composite Reliability (CR) and Cronbach's Alpha (CA). Hair et al. (2020) suggest that CR and CA values should exceed the minimum threshold of 0.70 to indicate satisfactory internal consistency. The results revealed that CR values for all constructs ranged from 0.890 to 0.931, while CA values ranged from 0.834 to 0.908. All values surpassed the recommended threshold, indicating that each construct demonstrated good reliability and consistency in measuring the research variables.

Furthermore, convergent validity was also assessed using the Average Variance Extracted (AVE). According to Hair et al. (2020), an AVE value of at least 0.50 indicates that a construct explains more than 50% of the variance of its indicators. The results show that the AVE values were 0.669 for Digital Literacy, 0.674 for Overconfidence Bias, and 0.731 for Quality Decision Making. All AVE values exceeded the recommended minimum threshold, indicating that convergent validity was satisfactorily established for all constructs in this study. The complete results of the convergent validity and reliability assessments are presented in Table 1.

Table 1. Measurement Model

Construct	Loadings	CR	CA	AVE
Overconfidence Bias		0.892	0.841	0.674
I am confident in my beliefs and in my own abilities.	0.852			
Other people perceive me as a person with a high level of self-confidence.	0.858			
My way of thinking and acting often contributes to the achievement of my goals.	0.762			
In my work, I am confident in my abilities and tend to rely on my own experience.	0.809			
Digital Literacy		0.890	0.834	0.669
I am able to search for and evaluate digital information before making business decisions.	0.807			
I understand the risks and issues associated with the use of digital information.	0.776			
I actively learn new features of the technologies that I use.	0.841			
I possess strong digital technology skills.	0.844			
Decision-Making Quality		0.931	0.908	0.731
The decisions I make are able to solve the problems I face.	0.852			
The decisions I make have clear reasons, objectives, and goals.	0.863			
I formulate high-quality alternative solutions before making decisions.	0.843			

The information I use in decision making is relevant and helps anticipate the potential consequences of my choices.	0.863
The information I use in decision making is reliable and free from bias.	0.854

Notes: CR = Composite Reliability; CA = Cronbach's Alpha; AVE = Average Variance Extracted.

Source: Developed by the author (2026)

After establishing convergent validity, the discriminant validity of the measurement model was evaluated to ensure that each construct possesses distinct characteristics and accurately measures its intended concept. Discriminant validity was assessed using the Fornell-Larcker criterion by comparing the square root of the Average Variance Extracted (AVE) for each construct with its correlations with other constructs (Lata et al., 2021). A construct is considered to have adequate discriminant validity when the square root of its AVE exceeds its correlations with all other constructs.

The results indicate that the square root of the AVE was 0.818 for Digital Literacy, 0.821 for Overconfidence Bias, and 0.855 for Decision-Making Quality. All of these values were higher than the inter-construct correlations, which ranged from -0.389 to 0.523. These findings suggest that each construct demonstrates satisfactory discriminant validity and explains its own underlying variable more strongly than it relates to other constructs. Therefore, the Fornell-Larcker criterion was successfully satisfied, indicating that discriminant validity in this study is well established. The complete results of the discriminant validity assessment are presented in Table 2.

Table. 2 Discriminant validity - Fornell-Larcker criteria

	Digital Literacy	Overconfidence Bias	Quality Decision Making
Digital Literacy	0.818		
Overconfidence Bias	-0.034	0.821	
Quality Decision Making	0.523	-0.389	0.855

Source: Developed by the author (2026)

After the measurement model satisfied the validity and reliability requirements, the next step was to evaluate the structural model to examine the relationships among the variables proposed in the research hypotheses. Hair et al. (2020) recommend using path coefficients, t-statistics, and p-values to assess the significance of relationships among constructs. In addition, the model's explanatory power for the endogenous variable can be evaluated using the coefficient of determination (R^2), as presented in Table 3.

Table 3. R Square (R^2)

	R Square	R Square Adjusted
Quality Decision Making	0.412	0.404

Source: Developed by the author (2026)

The results indicate that the R^2 value for Decision-Making Quality is 0.412, with an Adjusted R^2 value of 0.404. These values suggest that Overconfidence Bias and Digital Literacy jointly explain 41.2% of the variance in decision-making quality among digital business actors,

while the remaining 58.8% is explained by other variables not included in the research model. Based on the criteria proposed by Hair et al. (2019), this result indicates a moderate level of predictive power. The complete results of the hypothesis testing are presented in Table 4.

Tabel 4. Path coefficients/Boostrapping

	Coefficients	T Statistics	P Values	Decision
Digital Literacy -> Quality Decision Making	0.511	9.357	0.000	Accepted
Overconfidence Bias -> Quality Decision Making	-0.372	5.348	0.000	Accepted

Source: Developed by the author (2026)

Hypothesis H1 proposed that Overconfidence Bias has a negative effect on Decision-Making Quality among digital business actors. The path analysis results indicate that the relationship is negative and statistically significant ($\beta = -0.372$; t-statistic = 5.348; $p < 0.05$), thereby supporting H1. These findings suggest that the higher the level of overconfidence bias among digital business actors, the lower the quality of the decisions they make. Individuals who are excessively confident in their abilities and knowledge tend to disregard relevant information, underestimate risks, and give insufficient consideration to alternative courses of action in an objective manner.

Furthermore, Hypothesis H2 proposed that Digital Literacy has a positive effect on Decision-Making Quality among digital business actors. The results demonstrate that this relationship is positive and statistically significant ($\beta = 0.511$; t-statistic = 9.357; $p < 0.05$), thus supporting H2. These findings indicate that higher levels of digital literacy lead to better decision-making quality. The ability to access, understand, evaluate, and utilize digital information enables individuals to make decisions that are more rational, relevant, and based on valid information.

In addition, the path coefficient values indicate that the influence of Digital Literacy on Decision-Making Quality ($\beta = 0.511$) is stronger than the influence of Overconfidence Bias on Decision-Making Quality ($\beta = -0.372$). This finding suggests that the ability to manage and evaluate digital information is a more dominant factor in improving decision-making quality than the negative impact generated by cognitive bias. Therefore, based on the hypothesis testing results, both H1 and H2 are accepted.

Discussion

The findings reveal that Overconfidence Bias has a negative and significant effect on Decision-Making Quality among digital business actors, thereby supporting H1. This result confirms the findings of Twardawski & Kind. (2023), who explained that individuals with high levels of overconfidence tend to possess confidence that exceeds the actual accuracy of their knowledge. Consequently, such individuals become overly reliant on their own judgments and pay less attention to other relevant information during the decision-making process. This finding is also consistent with Karki et al. (2024), who argued that cognitive biases can reduce individuals' objectivity when evaluating decision alternatives.

Ebeling & Martinez. (2025) further explained that overconfident individuals tend to underestimate risks, ignore the possibility of failure, and become excessively optimistic about decision outcomes, which may ultimately reduce decision quality. In the context of digital business actors, this condition may result in business decisions being based more on personal assumptions than on comprehensive information analysis. Davis, (2024) also noted that cognitive biases, particularly overconfidence, can lead individuals to ignore risks and dismiss information that contradicts their existing beliefs, thereby increasing the likelihood of suboptimal decisions. Therefore, the higher the level of overconfidence bias among digital business actors, the lower the quality of their decision making.

The results also indicate that Digital Literacy has a positive and significant effect on Decision-Making Quality, thereby supporting H2. This finding is consistent with the studies of Tayyem et al. (2025) and Yuan et al. (2021), which demonstrated that the ability to access, understand, evaluate, and utilize digital information contributes positively to decision-making quality. Digital literacy enables individuals to obtain more relevant information, compare various alternatives, and verify information accuracy before making business decisions.

These findings are also aligned with the concept of digital literacy proposed by Ng, (2012) and Tinmaz et al. (2022), who emphasized that digital literacy encompasses not only technological proficiency but also the ability to critically evaluate information. For digital business actors, these competencies are increasingly important because most business decisions rely heavily on information obtained from digital platforms, online marketplaces, social media, and customer data.

This study further supports the findings of Deschenes, (2024), who demonstrated that the effective use of digital technologies helps individuals access higher-quality information and supports better decision-making processes. Moreover, Isabella et al. (2024) argued that digital literacy has become a critical competency in navigating increasingly complex digital environments because it enables individuals to identify credible information amid the overwhelming flow of digital content. Similar findings were reported by Abdulkareem & Ramli. (2021), who concluded that the ability to understand and effectively utilize digital technologies enhances decision-making effectiveness across various organizational and business contexts.

Based on the path coefficient values, Digital Literacy ($\beta = 0.511$) exerts a stronger influence on Decision-Making Quality than Overconfidence Bias ($\beta = -0.372$). This result indicates that the ability to manage and evaluate digital information plays a more dominant role in improving decision-making quality than the negative effects associated with cognitive bias. In a digital business environment that is highly dependent on data and information, decision quality is largely determined by an individual's ability to obtain, verify, and effectively utilize information. Therefore, improving digital literacy represents a critical factor in enabling digital business actors to make more rational, objective, and high-quality decisions.

Practical Implications

The findings of this study provide practical implications for digital business actors, including marketplace sellers, online shop owners, resellers, dropshippers, and digital-based MSMEs. The results indicate that Digital Literacy is the most influential factor in improving Decision-Making Quality. Therefore, digital business actors should strengthen their ability to search for, evaluate, and critically utilize digital information before making business decisions. These competencies are essential for reducing the risk of decision-making errors resulting from inaccurate, biased, or irrelevant information.

Isabella et al. (2024) emphasized that digital literacy has become an increasingly important competency for navigating complex digital environments characterized by rapid information flows. Consequently, improving digital literacy not only enhances individuals' understanding of technology but also strengthens their ability to make more effective, data-driven decisions.

In addition, the findings demonstrate that Overconfidence Bias can reduce decision-making quality. Therefore, digital business actors should develop habits of objectively evaluating information, considering multiple decision alternatives, and remaining open to feedback and perspectives that differ from their personal beliefs. Abdulkareem & Ramli. (2021) argued that the effective use of digital technology and information can improve decision-making effectiveness within organizations. By combining strong digital literacy skills with awareness of potential cognitive biases, digital business actors can make more rational, accurate, and high-quality decisions in increasingly competitive business environments.

CONCLUSION

This study examined the effects of Overconfidence Bias and Digital Literacy on Decision-Making Quality among digital business actors. The findings revealed that Overconfidence Bias negatively and significantly affects Decision-Making Quality ($\beta = -0.372$; $t = 5.348$; $p < 0.001$), indicating that excessive confidence in personal abilities tends to reduce objectivity when evaluating information and decision alternatives. Conversely, Digital Literacy positively and significantly affects Decision-Making Quality ($\beta = 0.511$; $t = 9.357$; $p < 0.001$), suggesting that individuals with stronger digital literacy competencies are more capable of making rational and information-based decisions. Furthermore, the model explains 41.2% of the variance in Decision-Making Quality ($R^2 = 0.412$), with Digital Literacy emerging as the strongest predictor. These findings highlight the importance of enhancing digital literacy while reducing cognitive biases to improve business decision quality in digital environments

REFERENCES

- Abdulkareem, A. K., & Ramli, R. M. (2021). Does digital literacy predict e-government performance? An extension of Delone and Mclean information system success model. *Electronic Government*, 17(4), 466–493.
- Creswell, W. J., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches. *Sage Publications*.
- Davis, D. (2024). Irrational Choices And Business Strategy: The Impact Of Cognitive Biases On Market Competitiveness. *European Journal of Business, Economics and Accountancy*, 12(2), 50–61.
- Deschenes, A.-A. (2024). Computers in Human Behavior Reports Digital literacy, the use of collaborative technologies , and perceived social proximity in a hybrid work environment : Technology as a social binder. *Computers in Human Behavior Reports*. ELSEVIER, 13.
- Ebeling, T., & Martinez, M. (2025). The Impact of Overconfidence Bias on Strategic Decision-Making. *LUP Student Papers*.
- Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101–110.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 1(31), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Isabella, Alfitri, Saptawan, A., Nengyanti, & Baharuddin, T. (2024). Empowering Digital Citizenship in Indonesia : Navigating Urgent Digital Literacy Challenges for Effective Digital Governance. *Journal of Governance and Public Policy*, 11(2), 142–155.
- Karki, U., Bhatia, V., & Sharma, D. (2024). A Systematic Literature Review on Overconfidence and Related Biases In uencing Investment Decision Making. *Economic and Business Review*, 26(2), 130–150.
- Lata, L., Zainal, S. R. M., Jan, G., & Memon, U. (2021). The nexus of physical, cognitive, and emotional engagement with academic staff turnover intention: The moderating role of organizational politics. *Global Business and Organizational Excellence*, 3(40), 36–49.
- Lhardy, S., Guillet-descas, E., & Martinent, G. (2025). Development of a Scale for Measuring Cognitive Biases Related to Risk-Taking Among Firefighters : The Five Cognitive Bias Risk Scale (5 CBR-S). *Fire*, 4(8), 147.
- Ng, W. (2012). Can we teach digital natives digital literacy? *Computers & Education*. ELSEVIER, 1065–1078. <https://doi.org/10.1016/j.compedu.2012.04.016>
- Sepucha, K. R., & Fowler, F. J. (2013). Measuring Decision Quality : Where We Stand Today.

Informed Medical Decisions Foundation.

- Shepherd, N., Mooi, E., Elbanna, S., & Lou, B. (2023). Fast and high-quality decision-making : The role of behavioral integration. *European Management Review*, 679–697. <https://doi.org/10.1111/emre.12573>
- Spetzler, C., Winter, H., & Meyer, J. (2016). *Decision Quality*.
- Tayyem, R., Qasrawi, R., Sabbah, H. Al, Amro, M., Issa, G., Atari, S. H., Bookari, K., Alawadhi, N., Allehdan, S., Trigui, H., Khader, Y., Badran, E., Kamel, I., Abdallah, A., Jemaa, M., Musa, E., Kong, J. D., Tayyem, R., Qasrawi, R., ... Issa, G. (2025). The impact of digital literacy and internet usage on health behaviors and decision-making in Arab MENA countries. *Technology in Society*.
- Tinmaz, H., Lee, Y. T., Ivanovici, M. F., & Baber, H. (2022). A systematic review on digital literacy. *Smart Learning Environments*, 9(21).
- Twardawski, T., & Kind, A. (2023). Board overconfidence in mergers and acquisitions. *Journal of Business Research*, 165, 114026. <https://doi.org/10.1016/j.jbusres.2023.114026>
- Wang, L. F., Yuniarti, K. W., Darwin, M., & Sumaryono, S. (2024). Decision Quality Questionnaire: An Instrument to Measure the Quality of Your Decision in Professional Life. *Dinasti International Journal of Management Science (DIJMS)*, 5(3).
- Yuan, Y., Liu, C., & Kuang, S. (2021). An Innovative and Interactive Teaching Model for Cultivating Talent ' s Digital Literacy in Decision Making , Sustainability , and Computational Thinking. *Sustainability*, 13(5117), 1–13.