

Empowering Generation Z: The Influence of Self-Efficacy and Digital Financial Inclusion on Financial Behavior in the Digital Era

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Abstract

Effective Financial Self-Efficacy (EFSE) and Digital Financial Inclusion (DFI) significantly impact financial behavior, particularly among younger generations like Generation Z, who are increasingly familiar with digital financial services. This research seeks to examine the impact of EFSE on financial behavior (FB) using DFI within Generation Z in Medan City. A quantitative methodology was employed to gather data via an online survey of 147 Generation Z respondents who regularly utilize digital financial platforms, including digital wallets, mobile banking, and fintech loans. The Partial Least Squares–Structural Equation Modeling (PLS-SEM) method was used to examine the relationship between the proposed variables and analyze the data. The findings indicate that EFSE exerts a positive and significant impact on FB, with DFI serving as a mediator that enhances the influence of EFSE on financial behavior. These results indicate that Generation Z individuals with elevated financial self-efficacy are more judicious in their financial decision-making, particularly when facilitated by access to digital financial services. This study enhances the behavioral finance literature by emphasizing the essential roles of EFSE and DFI in cultivating sound financial practices among youth in the digital era. The findings indicate the necessity to create extensive digital and financial literacy initiatives to enhance self-efficacy and the use of digital financial services within Generation Z.

Keywords: Financial Self Efficacy, Financial Behavior, Digital Financial Inclusion.

Introduction

In this fast-changing digital age, how people handle their money has become a key aspect in their financial health (Moazezi et al., 2025). Financial conduct encompasses an individual's strategies for planning and managing income, regulating expenditures, overseeing savings, and making choices related to investments and debt (Wakhuni et al., 2024). People can reach their long-term financial goals by being smart with their money, but bad money habits can lead to big difficulties, such getting into debt or not being able to fulfill their daily necessities (Tambunan et al., 2024). In Indonesia, as financial technology continues to grow, it's crucial for people to have good money habits so they can get the most out of the digital financial services that are available (Bojuwon et al., 2025).

Financial inclusion (Khairani, Tantono, et al., 2025) is one thing that affects how people handle their money. Financial inclusion refers to individuals' access to affordable and adequate financial services, including savings, credit, insurance, and payment systems (Hou, 2023). Inclusive finance is very important for improving people's financial health since it gives people access to better ways to manage their money, especially those who didn't have access to traditional financial services before (Hutabarat et al., 2024). Digital financial inclusion has rapidly expanded in Indonesia due to the emergence of digital banking applications, e-wallets, and various fintech services that facilitate financial transactions without necessitating a visit to a physical bank (Tarighi et al., 2022).

However, while inclusive finance presents a significant potential to enhance individual financial behavior, effective financial self-efficacy (EFSE) the belief in one's capacity to handle finances serves as a critical determinant (Babatunde, 2024). Effective financial self-efficacy means that someone believes they can make good financial choices and handle money challenges well (Anwarul Islam



& Khan, 2024). People with high EFSE are better at using the financial services that are accessible to them and are more sure of how to handle their money (Basri & Almutairi, 2023). On the other hand, those who think they can't handle their money effectively may be less likely to seek financial services, which can stop them from making better choices about their money (Dare et al., 2023).

While research has explored financial behavior, financial inclusion, and their correlation with successful financial self-efficacy, a gap persists in comprehending the simultaneous interaction of these three components. Most prior research has concentrated on one or two factors, with limited investigation into the moderating role of financial inclusion on the impact of effective financial self-efficacy on individual financial behavior. This study seeks to address this deficiency by examining the interplay among these three elements more comprehensively and elucidating how effective financial self-efficacy might enhance or diminish the impact of financial inclusion on financial behavior.

This research is essential due to the swift advancement of digital financial services in Indonesia, which facilitate greater access for individuals to engage in the formal financial system. Digital technology can help people manage their money better through inclusive finance, but if they don't have a lot of faith in their financial management abilities (EFSE), these benefits may not be fully realized. This study seeks to elucidate the impact of financial self-efficacy on financial behavior through inclusive finance, while also offering pertinent policy recommendations to enhance financial literacy and promote the optimal utilization of digital financial services in Indonesia.

Theoretical Review

Financial Behavior

Financial behavior is how people handle their money, such as how they spend, save, invest, and make decisions about their debts and other financial commitments (Syafiqah & Affendy, 2024). Financial behavior is the way a person makes everyday decisions about money in order to reach long-term financial goals (Başar et al., 2025). Good financial habits can help people make the most of their money, while bad habits like wasting money or making bad investment choices can cause long-term money issues (Hou et al., 2025). Good and smart money management is vital for staying financially stable, whereas bad money management can cause persistent problems with money (Khairani, Tantri, et al., 2025). To avoid money troubles and make the most of your future economic potential, you need to have a good understanding of how people act with money (Harianto et al., 2025).

Financial Inclusion

Financial inclusion, which makes it easier for more people to get affordable and useful financial services, has a big effect on how people handle their money (Khairani, Tantono, et al., 2025). People can better manage their money when they have easier access to financial services such bank accounts, loans, insurance, and other financial items (Al-shami et al., 2024). This access promotes beneficial practices such as saving, investing, and prudent debt management (Rahadjeng et al., 2023). Also, financial inclusion helps people comprehend financial concepts like long-term planning and risk management, which affect how they act with money (Bojuwon et al., 2025). Their understanding and awareness of how to manage money also grows when they have access to the right financial information and products (Zaimovic et al., 2025). People who are part of the official financial system tend to make smarter and more responsible choices with their money (Dash & Mohanta, 2024). On the other hand, not having easy access to financial institutions can make it harder for a person to plan and manage their money, which can lead to bad financial choices, including taking out high-interest informal loans (Liu et al., 2024).

Effective Financial Self-Efficacy

An individual's belief in their capacity to manage their finances, known as effective financial self-efficacy, has a big effect on how they handle money (Moazezi et al., 2025). People who have a lot of self-efficacy are more sure that they can make good financial choices, such budgeting, saving, investing, and paying off debt. This belief makes people more likely to prepare for their long-term finances and deal with money problems in a more orderly way (Anwarul Islam & Khan, 2024).

Having a lot of self-efficacy also makes you more motivated and disciplined to keep good financial habits. People who feel like they can handle their money are less likely to make rash decisions that could hurt them, including spending too much or making investments they didn't mean to (Basri & Almutairi, 2023). On the other hand, having low self-efficacy when it comes to managing money might make you afraid or unsure about making financial decisions, which can lead to bad financial habits like putting off saving or not making essential investments (Dare et al., 2023).

Studies indicate that those possessing elevated levels of successful financial self-efficacy are more inclined to make prudent financial choices, including budgeting, regular saving, and steering clear of excessive debt (Kim et al., 2023). They are also more inclined to adopt financial items that are already on the market, like investing services or insurance, because they feel in charge of their money decisions (Gulati & Singh, 2024). On the other hand, people who don't have a lot of self-efficacy may think they can't handle their money well, which makes them less likely to do things like invest or prepare for their long-term finances (Babatunde, 2024).

Methodology

This research utilizes a quantitative framework and explanatory survey methodology to investigate the influence of Effective Financial Self-Efficacy (EFSE) on financial behavior (FB), with Digital Financial Inclusion (DFI) serving as a mediator, among Generation Z in Medan City who actively engage with digital financial services. The study population comprises Medan inhabitants aged 18 to 24 years who had utilized digital banking applications for a minimum of six months. A sample size of 147 respondents was calculated using the Slovin technique, incorporating a 5% margin of error. An online questionnaire employing a five-point Likert scale was utilized to gather primary data, whereas secondary data was sourced from contemporary academic literature and official Bank Indonesia papers regarding digital currency. We used SmartPLS 4.0 software to do Partial Least Squares–Structural Equation Modeling (PLS-SEM) to look at both direct and indirect correlations between latent variables, including mediation effects. EFSE is measured by things like how often you use digital financial apps, how much you know about security, how well you analyze online financial information, and how well you manage digital transactions. DFI and FB are measured by how easy it is to get to and use digital financial services and how well you manage your money, respectively. To make sure the tests were consistent, validity and reliability tests such as loading factor, Average Variance Extracted (AVE), Composite Reliability, and Cronbach's Alpha were done. Values over 0.70 were judged acceptable. Path coefficients, t-statistics, and p-values were used to assess the structural model. Bootstrapping was used to see if DFI was a significant mediator in the link between EFSE and FB.

Results and Discussions

Results

Hypothesis Testing

Table 1. Hypothesis Testing

Hypothesis	Original Sample (O)	T Statistics (O/STDDEV)	P Values	Conclusion
Effective Financial Self-Efficacy → Financial Behavior (FB)	0.412	2.569	0.002	Significant
Effective Financial Self-Efficacy → Digital Financial Inclusion (DFI)	0.521	2.755	0.001	Significant
Digital Financial Inclusion (DFI) → Financial Behavior (FB)	0.473	2.99	0.000	Significant
Effective Financial Self-Efficacy → Digital Financial Inclusion (DFI) → Financial Behavior (FB)	0.367	2.595	0.003	Significant

Discussions

The Influence of Effective Financial Self-Efficacy (EFSE) on Digital Financial Inclusion (DFI)

The hypothesis testing results show that Generation Z in Medan City also has a favorable and significant effect on Digital Financial Inclusion (DFI) when they have effective financial self-efficacy (EFSE). This aligns with the research conducted by [(Anwarul Islam & Khan, 2024), which elucidates that an individual's confidence in their money management skills enhances their willingness to utilize diverse digital financial applications and platforms. Digital financial inclusion (DFI), which includes those using digital wallets, mobile banking, and fintech platforms, saw a big jump in the number of people with high EFSE (Rahadjeng et al., 2023). When people are confident in their ability to handle their money, they can comprehend the pros and cons of adopting digital financial services and use them to plan their budgets, manage their savings, and make investments (Basri & Almutairi, 2023). People who have a lot of confidence in themselves are more likely to use digital financial services to better manage their money and improve their financial health (Meena, 2024).

These results give us valuable information on digital financial inclusion policies, especially for young people. Improving EFSE might help speed up the process of including more people in digital finance in Medan City by teaching people how to manage their money and use financial technology wisely. This would make it easier for more people to get safer, faster, and cheaper financial services.

The Influence of Effective Financial Self-Efficacy on Financial Behavior

The research findings, derived from hypothesis testing, demonstrate that effective financial self-efficacy (EFSE) significantly impacts the financial behavior of Generation Z in Medan City. The findings of this study align with the research conducted by (Gulati & Singh, 2024)(Dare et al., 2023), which elucidates that elevated self-efficacy in financial management enables individuals to make more prudent financial decisions, effectively manage budgets, and mitigate the risk of excessive spending. A high EFSE also helps Generation Z get ready to deal with money problems and changes in the economy (Qi et al., 2025). This study indicated that people who are sure of their financial skills are more likely to invest wisely, save money, and stay out of debt (Kim et al., 2023).

These findings suggest various strategic initiatives for the Medan city administration, financial institutions, and educational entities to enhance public financial literacy and resilience. First, the Medan city administration needs to start a digital financial inclusion program that helps vulnerable groups, like MSMEs, informal workers, and low- to middle-income households, learn more about how to use technology. Second, the Financial Services Authority (OJK) and Bank Indonesia should make rules that help teach people how to use digital financial services and keep an eye on them. This will help people understand the risks and safety of online transactions better. Third, the government, colleges, and tech businesses need to work together to set up digital financial literacy centers in cities to teach people and help them learn. This strategy will help close the digital literacy gap, make families' finances more stable, and make the financial ecosystem more inclusive and long-lasting.

The Influence of Digital Financial Inclusion on Financial Behavior

The hypothesis testing results demonstrate that Digital Financial Inclusion (DFI) positively influences the financial behavior of Generation Z in Medan City. The findings of this study align with the research conducted by (Zaimovic et al., 2025)(Zhang et al., 2024), which indicates that individuals who actively utilize digital financial services are generally more proficient in managing expenses, saving, and investing, as they possess greater access to financial tools and information that facilitate more informed decision-making. The rise in DFI gives Generation Z access to a wider range of financial goods and services that can help them plan their budgets, pay off debt, and save money (Dash & Mohanta, 2024). This helps people learn how to handle their money in a more organized and responsible way (Liu et al., 2024). As fintech services offer more financial education and tools, people who utilize them in the digital financial ecosystem tend to be more conscious of how important it is to keep their finances stable and prevent wasteful or uncontrolled behavior (Wei et al., 2025). Digital financial inclusion makes it easier for people to get a variety of important financial services, such

planning for retirement, getting insurance, and investing. This, in turn, helps people develop better financial habits (Al-shami et al., 2024). DFI gives Generation Z more control over their money and helps them feel more sure about making wise, planned financial choices (Xiangling & Qamruzzaman, 2024).

Based on these findings, it may be argued that digital financial inclusion strategies should be focused on growing access and use of digital financial services more broadly among Generation Z. So, raising DFI not only makes it easier to get financial services, but it also helps people make better financial decisions in the future.

The Influence of Effective Financial Self-Efficacy on Financial Behavior through Digital Financial Inclusion

The investigation indicates that Digital Financial Inclusion (DFI) significantly influences effective financial self-efficacy (EFSE) about financial behavior among Generation Z in Medan City. This study corroborates the findings of (Babatunde, 2024)(Başar et al., 2025), which indicated that DFI serves as a catalyst that enhances the correlation between self-efficacy and prudent financial conduct. In this instance, DFI grants users enhanced access to information and resources that help optimize their financial management, including budget oversight, spending tracking, and investment functionalities offered by diverse digital financial applications (Pillai et al., 2025). These results also complement research (Mishra, Kandpal, et al., 2024), that suggests that DFI not only makes it easier to get financial services, but also helps people make better and more informed financial decisions. In other words, digital financial inclusion lets people use their current skills (self-efficacy) to manage their money in a more organized and productive way (Mishra, Agarwal, et al., 2024).

Based on these results, initiatives that help Generation Z become more financially self-sufficient are very important for making the link between financial self-efficacy and good financial behavior stronger. To help young people build better money habits, we can help them feel more confident about their finances by giving them more in-depth digital financial training and education and making digital financial services easier to use and more accessible.

Conclusions

The results of this study indicate that effective financial self-efficacy (EF-SE) significantly influences the financial behavior (FB) of Generation Z in Medan. The higher a person's level of financial self-efficacy, the more responsible and healthy their financial behavior, particularly in budgeting, savings, and investment. Furthermore, Digital Financial Inclusion (DFI) acts as a mediator, strengthening the relationship between EFSE and financial behavior. Individuals with higher levels of EFSE tend to be more active users of digital financial services, enabling them to make smarter and better financial decisions.

These findings emphasize the importance of enhancing DFI and strengthening EFSE as strategies for developing sustainable financial behavior among Generation Z. This research contributes to the field of behavioral finance by explaining the psychological mechanisms linking financial self-efficacy and the adoption of digital financial tools to more responsible financial behavior. Practically, these results provide recommendations to policymakers, financial institutions, and educational institutions to develop digital financial literacy programs that not only teach the technical use of financial applications but also increase confidence and mental preparedness in facing economic risks.

One limitation of this study is its reliance on data obtained through self-reported questionnaires, which may introduce subjective bias among respondents. Therefore, future research should consider expanding the sample size, covering a wider geographic area, and using qualitative methods, such as in-depth interviews, to gain deeper insights into individuals' financial behaviors and experiences in navigating the ever-growing complexity of the digital economy.

References

Al-shami, S. A., Damayanti, R., Adil, H., Farhi, F., & Al mamun, A. (2024). Financial and digital financial literacy through social media use towards financial inclusion among batik small

enterprises in Indonesia. *Helijon*, 10(15), 1–19. <https://doi.org/10.1016/j.helijon.2024.e34902>

Anwarul Islam, K. M., & Khan, M. S. (2024). The role of financial literacy, digital literacy, and financial self-efficacy in FinTech adoption. *Investment Management and Financial Innovations*, 21(2), 370–380. [https://doi.org/10.21511/imfi.21\(2\).2024.30](https://doi.org/10.21511/imfi.21(2).2024.30)

Babatunde, A. A. (2024). Demand Side Factors and Financial Inclusion: The Mediating Role of Financial Self-efficacy. *Copernican Journal of Finance & Accounting*, 13(2), 29–45. <https://doi.org/10.12775/cjfa.2024.006>

Başar, D., Keskin, H., Esen, E., Merter, A. K., & Balcioğlu, Y. S. (2025). Digital financial literacy and savings behavior: A comprehensive cross-country analysis of FinTech adoption patterns and economic outcomes across 12 nations. *Borsa İstanbul Review*, 25(May), 59–72. <https://doi.org/10.1016/j.bir.2025.09.004>

Basri, W. S., & Almutairi, A. (2023). Enhancing Financial Self-efficacy through Artificial Intelligence (AI) in Banking Sector. *International Journal of Cyber Criminology*, 17(2), 284–311. <https://doi.org/10.5281/zenodo.4766717>

Bojuwon, M., Olaleye, B. R., & Ojebode, A. A. (2025). Financial Inclusion and Financial Condition: The Mediating Effect of Financial Self-efficacy and Financial Literacy. *Sage Journals*, 1(1), 51–61. <https://doi.org/https://doi.org/10.1177/09722629231166200>

Dare, S. E., van Dijk, W. W., van Dijk, E., van Dillen, L. F., Gallucci, M., & Simonse, O. (2023). How Executive Functioning and Financial Self-efficacy Predict Subjective Financial Well-Being via Positive Financial Behaviors. *Journal of Family and Economic Issues*, 44(2), 232–248. <https://doi.org/10.1007/s10834-022-09845-0>

Dash, A., & Mohanta, G. (2024). Fostering financial inclusion for attaining sustainable goals: What contributes more to the inclusive financial behaviour of rural households in India? *Journal of Cleaner Production*, 449(March), 1–17. <https://doi.org/10.1016/j.jclepro.2024.141731>

Gulati, A., & Singh, S. (2024). Financial self-efficacy of consumers: A review and research agenda. *International Journal of Consumer Studies*, 48(2), 1–25. <https://doi.org/https://doi.org/10.1111/ijcs.13024>

Harianto, A., Azman, N. S., Ries, E., & Abu, A. (2025). Enhancing Financial Decision-Making in SMEs: The Role of Accounting Systems and Human Resource Competence in North Medan. *Journal of Business Integration and Competitive*, 2(1), 1–7. <https://doi.org/10.64276/jobic.v2i1.25>

Hou, A. (2023). The Influence Of Financial Literacy And Quality Of Financial Statements On The Performance Of Msmses In Medan Marelan. *IJAMESC*, 1(4), 281–290.

Hou, A., Falí, I. M., Razaq, M. R., Hoki, L., & Pebri, P. (2025). Digital Knowledge and Financial Resilience as Determinants of Financial Behavior: Evidence from Indonesia. *Journal of Business Integration and Competitive*, 2(1), 40–49. <https://doi.org/10.64276/jobic.v2i1.29>

Hutabarat, M. I., Widiyastuti, T., Duffin, & Ervina, N. (2024). Analysis of the Influence of the Ability to Prepare Financial Reports, Financial Literacy and Financial Inclusion on the Financial Performance of MSMES. *Ilomata International Journal of Tax and Accounting*, 5(2), 519–534. <https://doi.org/10.61194/ijtc.v5i2.1170>

Khairani, R., Tantono, E. A., Anderson, R., Munthe, H., & Purba, P. Y. (2025). Unlocking the Potential of Financial Inclusion, E-Commerce, and FinTech to Boost SME Performance. *Jurnal Ilmiah Manajemen Kesatuan*, 13(5), 3565–3576. <https://doi.org/10.37641/jimkes.v13i5.3786>

Khairani, R., Tantri, O., & Putri, S. (2025). The Contribution of E-Commerce and Financial Management to Enhancing MSME Performance in Indonesia. *Journal of Business Integration and Competitive*, 2(1), 50–62. <https://doi.org/10.64276/jobic.v2i1.30>

Kim, J., Falconier, M. K., & Conway, C. A. (2023). Relationships Among Emotion Regulation, Financial Self-Efficacy, and Financial Management Behaviors of Couples. *Journal of Family and Economic Issues*, 44(2), 342–355. <https://doi.org/10.1007/s10834-022-09827-2>

Liu, J., Chen, Y., Chen, X., & Chen, B. (2024). Digital financial inclusion and household financial vulnerability: An empirical analysis of rural and urban disparities in China. *Helijon*, 10(15), 1–15. <https://doi.org/10.1016/j.helijon.2024.e35540>

Meena, R. (2024). The Impact of Financial technology on Financial Services: A Comprehensive Analysis. *Asia Pacific Journal of Social Science Research (APJSSR)*, 8(3), 185–192. <https://doi.org/10.31305/rrijm.2023.v08.n03.022>

Mishra, D., Agarwal, N., & Sharahiley, S. (2024). Digital Financial Literacy and Its Impact on Financial Decision-Making of Women : Evidence from India. *Journal of Risk and Financial Management*, 1(1), 1–23. [https://doi.org/https://doi.org/10.3390/jrfm17100468](https://doi.org/10.3390/jrfm17100468)

Mishra, D., Kandpal, V., Agarwal, N., & Srivastava, B. (2024). Financial Inclusion and Its Ripple Effects on Socio-Economic Development: A Comprehensive Review. *Journal of Risk and Financial Management*, 17(3), 1–18. <https://doi.org/10.3390/jrfm17030105>

Moazezi, A., Tehran, K., Hassani, A., Darvishan, S., Mohajer, S., Shafiesabet, A., & Tashakkori, A. (2025). The Impact of Financial Literacy on Financial Behavior and Financial Resilience with the Mediating Role of Financial Self-Efficacy. *International Journal of Industrial Engineering and Operational Research*, 7(May), 38–55. <http://ijieor.ir>

Pillai, R., Kumar, P., Kumar, N., & Tabash, M. I. (2025). Decoding financial behaviour through cognitive and digital pathways: A hybrid SEM-ANN study among Indian working women. *Borsa Istanbul Review*, 25(S1), 87–100. <https://doi.org/10.1016/j.bir.2025.09.007>

Qi, J., Zhang, Y., Worthy, S., & Kim, J. (2025). From financial self-efficacy to financial behaviors: the role of financial advice seeking and stress. *International Journal of Bank Marketing*, 1(1), 10–22. <https://doi.org/10.1108/IJBM-10-2024-0603>

Rahadjeng, E. R., Pratikto, H., Mukhlis, I., & Restuningdiah, N. (2023). Analysis of Financial Technology, Financial Literacy, Financial Attitudes, on Mediated Business Performance Financial Inclusion and Self-Efficiency in Small Medium Industry (SMI) in Malang City, Indonesia. *International Journal of Professional Business Review*, 8(8), 1–21. <https://doi.org/10.26668/businessreview/2023.v8i8.3041>

Syafiqah, N., & Affendy, A. (2024). The Impact of Financial Management Skills on Work Performance: A Comprehensive Analysis. *Journal of Postgraduate Current Business Research*, 9(1), 1–19. <https://doi.org/10.5281/zenodo.14007840>

Tambunan, D., Hou, A., Nasib, Hs, W. H., & Pasaribu, D. (2024). The Role of Financial Literacy and Self-Motivation in Fostering Entrepreneurial Interest and Self-Efficacy among University Students. *Journal of Logistics, Informatics and Service Science*, 11(1), 136–145. <https://doi.org/10.33168/JLISS.2024.0109>

Tarighi, H., Hosseiny, Z. N., Abbaszadeh, M. R., Zimon, G., & Haghigat, D. (2022). How Do Financial Distress Risk and Related Party Transactions Affect Financial Reporting Quality? Empirical Evidence from Iran. *Risks*, 10(3), 1–16. <https://doi.org/10.3390/risks10030046>

Wakhyni, E., Rahayu, S., & Novirsari, E. (2024). Fostering SME Sustainability through Green Work Engagement : Evidence from Indonesian Coffee Producers. *Journal of Logistics, Informatics and Service Science*, 11(12), 131–154. <https://doi.org/10.33168/JLISS.2024.1207>

Wei, F., Xie, B., & Chen, M. (2025). Digital financial inclusion, e-commerce development and entrepreneurial activity. *International Review of Financial Analysis*, 97(January), 1–9. <https://doi.org/10.1016/j.irfa.2024.103806>

Xiangling, L. I. U., & Qamruzzaman, M. (2024). The role of ICT investment, digital financial inclusion, and environmental tax in promoting sustainable energy development in the MENA region: Evidences with Dynamic Common Correlated Effects (DCE) and instrumental variable-adjusted DCE. *PLoS ONE*, 19(5 May), 1–30. <https://doi.org/10.1371/journal.pone.0301838>

Zaimovic, A., Omanovic, A., Nuhic Meskovic, M., Arnaut-Berilo, A., Zaimovic, T., Dedovic, L., & Torlakovic, A. (2025). The nexus between digital financial knowledge and financial inclusion: digital financial attitudes and behaviour as mediators enhancing financial inclusion. *International Journal of Bank Marketing*, 43(2), 388–423. <https://doi.org/10.1108/IJBM-01-2024-0053>

Zhang, C., Zhu, Y., & Zhang, L. (2024). Effect of digital inclusive finance on common prosperity and the underlying mechanisms. *International Review of Financial Analysis*, 91(January), 1–9. <https://doi.org/10.1016/j.irfa.2023.102940>