

DI-FI AND PSYCHOLOGICAL BIASES: AN EXPLORATION

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ABSTRACT

Rapid growth of financial technology (fintech) has changed the financial landscape by providing unmatched speed, efficiency and deepening financial inclusion. Still, the existing narrative has many a times assumed that users are making perfectly rational choices, ignoring the element of how these platforms interact with their own biases and cognition towards taking such financial decisions. Addressing this gap, this paper is presenting a purely theoretical framework finding how such digital environments change biases while making financing decisions. This paper conceptually examined how the features of such digital platforms such as immediate transactions, smoothness, and the abstraction of money acting as a catalyst that can influence errors, biases, and overconfidence. Contrasting to this, this paper also shows the two facets of these digital platforms, proposing that such platforms have the capacity to control such errors and biases if it is intentionally designed as such. Ultimately by positioning these biases as the mediator between technology and decision making, this work posits fintech not just as a delivering mechanism, but also as a behavior shaping system.

KEYWORDS: fintech, cognitive bias, behavioral finance, financial decision making,

INTRODUCTION

Rising fintech has changed the global perspective towards finance. By using mobile payment technology, AI, and automated processes, fintech is helping create totally new ways to consume and deliver financial services (Gomber et al., 2017; Lee & Shin, 2018). The main motives surrounding this digital change has been due to its ample benefits such as increased transaction speed, expanded financial inclusion and achieving operational efficiency. Digital platforms don't require any middlemen thus lowering the costs, helping the markets to be easily accessible to general public and business that were earlier excluded. With such optimistic perspectives, lies a major drawback which is the assumptions that individual or business using fintech tends to make proper rational choices every time. But theories such as Behavioural Finance Theory explains that human decisions are rarely perfectly logical and it is instead majorly influenced via various psychological, cognitive and emotional factors (Aoun et al., 2026; Rahman & Hossain, 2025). People relies mostly on mental shortcuts which makes them go through systematic bias like overconfidence, or following the herd mentality that greatly affect their financial choices. Thus, when the user gets into interaction with such technology, their choices are not created being standalone, but rather they are moulded and shaped by various biases (Aoun et al., 2026). Existing research has covered various benefits, theoretical models, and drivers that stand behind fintech's growth in the recent years (Choudhary & Thenmozhi, 2024). There still exists a gap in the literature; the conceptual integration of behavioural finance with such new environments (Aoun et al., 2026). Various studies often focuses on common models such as TAM and regulatory challenges, keeping the psychological biases of these digital platform excluded (Afjal, 2023). The rapid design of such technology extensively changes the environment in which such decisions are made which can change how our biases naturally operate. Addressing this gap, the purpose of this paper is to explore how such digital environments interacts and influence biases in financial decision making. It is to mention and clarify that this paper is purely theoretical, and is not based on empirical data or any statistical testing. It achieves to build a framework explaining how such technology can influence or amplify such cognitive biases. By looking at Fintech not just as a tool for service delivery but as a mechanism that shapes human behaviour, providing a detailed understanding of financial decision making today.

THEORETICAL BACKGROUND

Traditional models operated on the single assumption that an individual acts with rationality, but when you look at Behavioural Finance theory, it gives a more realistic perspective spiralling around bounded rationality. It is because human cognition is limited, individual ignores slow and analytical evaluation for fast and intuitive thinking, which is often called as System 1 processing in psychology. (Amorim, 2025; Sahu et al., 2025). This reliance on such shortcuts known as heuristics that helps people to process complex information rapidly but it makes them vulnerable to errors. Thus, financial decisions are rarely based on hard logic.

Within such investments environments, these limitations often tends to behave as different and observable bias. For instance, element of overconfidence makes individual to overestimate their predictive thinking and ability and underestimate risks, which is commonly results in over trading and decreased long term outcomes (Barber & Odean, 2001; SHEFRIN & STATMAN, 1985). Another issue in this is effect where individuals tends to sell assets and investments to fix profits or holds on to loss making investments due to anticipated regret (Danbolt et al., 2021; Kiky et al., 2024). Herd behaviour compel investors to leave independent analysis, which makes them to follow the actions of the crowd (Sumantri et al., 2024). Such decisions are more supported via emotional stress which disconnects logical information during intense market situations (Lo & Repin, 2002).

Transition of this digital finance to such a complex layers of psychological dynamics, that is explained traditionally via Technology Acceptance Model (TAM), and Unified Theory of Acceptance and use of Technology (UTAUT) (Davis, 1989; Venkatesh et al., 2003). Prior theories stresses on the usefulness and ease as the main focus of adoption, these digital systems acts as agents that influences and changes the decision making (Huo et al., 2024; Venkatesh et al., 2003). In this modern era, consumer behaviour is largely influenced by nudging where these platform design and algorithms are engaged to direct user's financial attitude and perspectives (Abis et al., 2025; Munongo & Pooe, 2025). Other than this, the rapid process of such digital services has introduced new levels of technological risks which demands a rather more comprehensive perspective and understanding for such modern adoption (Thakor, 2020).

These digital finance ecosystem combines the psychological and technological elements, which allows them to intensify as well as correct human bias. On one side, speed and consistency triggers FOMO behaviour that leads in impulsive decision making (Kurnianingsih et al., 2024). Continuous flow of such digital information triggers the users resulting in stress that ends in reducing their analytical ability and increases the dependence on other alternative shortcuts (Ragu-Nathan et al., 2008).

DIGITAL FINANCE FEATURES

Digital finance greatly constructs the skeleton of financial decisions by removing traditional physical and temporary constraints. This creates a very unique decision-making environment that is defined by various abstract characteristics that directly influences the human cognition.

An important characteristics for this is immediate-ion, that is the rapid transmission between the user's financial intention and it's execution. Traditional finance systems impose delay which allows the careful checking but the digital platforms compress such tasks into instant processes. These fast processes changes the decision making that by reducing the time and space required for thinking logically, pushes the user to be dependent on fast, intuitive shortcuts while finalizing financial choices (Mufassiro et al., 2025). Related closely to the speed of such transactions is seamlessness, that is operating via the minimized traditional barriers and intermediate friction. By bypassing physical paperwork and processes, fintech creates a very rapid pathway for moment. This design greatly achieves efficiency; absence of such process diligence removes the time period that helps individuals get protected from decision based on emotions and impulse actions (FSB, 2019). This digital environment is also explained via the continuous accessibility. As such digital platforms often operate independently of geographical boundaries and its operating hours, users gets uninterrupted access to markets. This continuous connectivity shifts the landscape as it reduces the information overload and emotional arousal.

And lastly, the choices in the system that are characterized by the interface driven interactions, means that all the users are mediated via a digital design. Visual structures and architectural platform continuously directs the user's attention and limits the parameters of the available choices (FSB, 2019; Gomber et al., 2017). As every financial actions are framed via designs, the interface not acts as a gateway but as an active environment that systematically shapes the financial outcomes and intent (Munongo & Pooe, 2025).

BIASES IN FINANCIAL DECISION-MAKING

Behavioural finance theory identifies various limitation that drastically limits economic choices. Rather than viewing these as just anomalies, they are largely understood as theoretical constructs that explains how an individual understands financial information and comes to a decision (Shefrin & Statman, 2000; Tversky & Kahneman, 1974).

Present bias is the tendency to give more importance to immediate reward rather than future gains, ignoring the value of delayed outcomes (Aifuwa et al., n.d.). In decisions related to finance, this bias makes people to prioritize short term results or immediate consumption. This results in irregular saving behaviour and reduce the ability to build wealth over time. **Overconfidence bias** shows the overestimation of one's ability, capabilities, and control over uncontrollable events (Fersi et al., 2023). In financial decisions, this explains why an individual consistently underestimate various topics while overestimate their own personal capacity to perform. This boom self-assessment many times drives risks, over trading and a mirage of control over complex financial decisions and instruments. **Mental accounting** is the process by which an individual categorize and treat money differently based on the criteria such as source of funds and their intended purpose (Simonn, 2025). Principle of Fungibility is directly affected here where it says that the idea of money holds equal value irrespective of its origin. It's relevance lies on how it can cause investors to separate their wealth in separate mental buckets which results into inconsistent risky allocation. **Self-Control bias** refers to the inability to delay actions and resisting immediate emotions leading to a failure in following a disciplined long-term strategy. In financial settings, it interferes with rational decision making by overriding careful planning and analytical thinking. As a result, the investors make quick and reactive choices like selling during panic times during market downturns or chasing temporary trends instead of relying on proper fundamental analysis (Sahu et al., 2025).

INTERPLAY BETWEEN DIGITAL FINANCE AND BEHAVIOURAL BIAS

An important qualitative contribution of syringing behavioural finance with financial technology, is in the understanding that such digital platforms are not just channels for transactions. They also act as a behaviour shaping mechanisms that changes how cognitive bias are practiced. In this digital environment, various characteristics of these fintech exists a rather very profound opportunities to interact with our human psychology, functioning as an amplifying mechanism that increases the impact of already inherited irrationalities (Ghosh & Golder, 2026; Jünger & Mietzner, 2020). The immediate-ion effect of such digital finance directly supports present bias. As these digital platforms provides immediate gratification and faster transaction execution, they satisfy the human need of immediate rewards, severely damaging the necessary time for slow and analytical thinking. Over and above, users are pushed to prioritize short term actions over long term logical planning. Closely related with this is the platform's seamlessness that directly self-control bias and impulsivity. Removal of the traditional barriers and intermediation of elements, these tech removes the cooling off period that would rather save users from making hasty choices in little time. This "too-smooth-to-be-true" environment creates panic selling during market downturns or chasing trends, which results in impulsive actions rather than logical and analytical decisions (Fersi et al., 2023; Gomber et al., 2017). Interaction between technology and psychology is not just harmful but it can also moderate human bias. While these digital platforms can increase cognitive mistakes, they can also be designed in such a way that it reduces such bias. These fintech platforms use digital nudging, applying algorithms and behavioural cues to encourage a rather very rational and more disciplined financial decisions (Munongo & Poee, 2025). From a bird's eye view, digital finance can act as a dual sword as it can change one's decision making but also can protect the same users from their own cognitive limitation if it is designed in such ways.

CONCEPTUAL FRAMEWORK

For the proper understanding of how these digital systems reshape human choices, this paper proposes a very impactful theoretical model given below in *Figure 1: How Digital Finance reshapes Human Choice*. Instead of understanding and looking at financial technology as a passive neutral tool that is made for executing financial transactions, this conceptual framework understands it as the design of these digital platforms as an actively interacting element with human decision making helps to determine financial outcomes. Core element of the whole framework lies on the understanding that behavioural bias act as a mediating mechanism between technology and a human's final decision making. These digital systems do not automatically make a human to make irrational or immediate choices. Rather they create a very frictionless smooth environment that increases the user's exposure to their own cognitive limitations such as mental accounting, present bias etc. Technology acts as a catalyst, but in the end it is these biases that are activated that steps into having hasty, emotions driven and uncalculated financial decisions. Putting behavioural biases as a bridge, this framework properly explains how financial decision and outcomes are very much indirectly shaped via digital environment. Technology is the starting point of such biased decision by providing seamless smooth flow of information and execution of transactions which lowers the cognitive barriers that usually protects individual from relying on mental shortcuts. Lastly the final decisions whether it is via panic buying or selling, over trading or impulsive spending, these are the indirect outcomes of a digital system winning over already existing human biases. This model highlights the profound view that is in order to understand modern financial choices, we should understand how these digital ecosystems silently manipulate human mind even before we take a decision (Sahu et al., 2025).

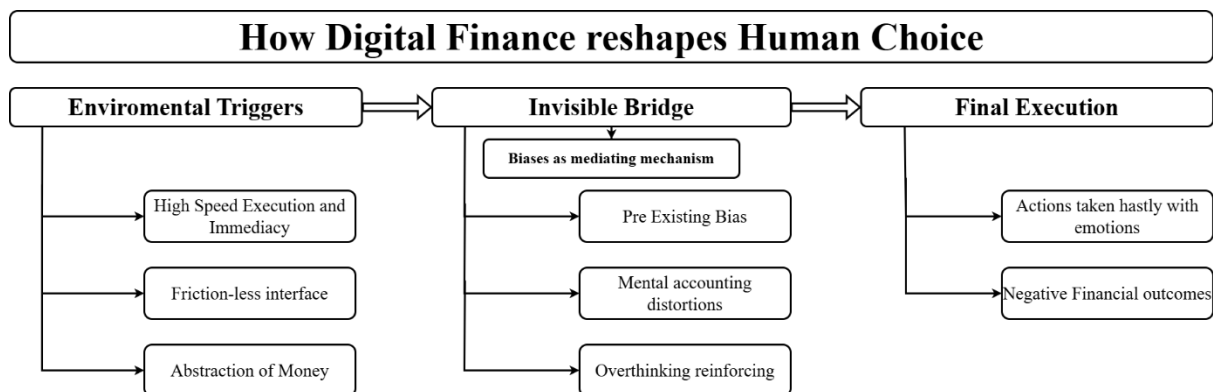


Figure 1: How Digital Finance reshapes Human Choice

IMPLICATIONS

Main aim of this theoretical contribution is the systemic expansion of the concept of behavioural finance into these digital environments. Till now, behavioural finance has studied cognitive limits and heuristics based off emotions with older, traditional, and physical market structures but the fast conversion of traditional to digital financial services needed a paradigm shift to know how the human limitations operates in digital spaces. With the synergy of these two topics, this work seeds the concept of "Behavioural Fintech", by providing with the core understanding of how these psychological biases are turning out when the decisions are taken when the mediator are de-fi systems, algorithmic decision making and smooth execution of transactions instead of human intermediates (Goldstein et al., 2019; Thakor, 2020). Moreover, this work also reframes theoretically the fintech diverging from traditional views of technology adoption. Existing works view de-fi as a mechanism to achieve efficiency and market access (Arner et al., 2020; Gomber et al., 2017). Contrasting to this, this paper puts fintech as an ever-changing system.

This work suggests that such digital platforms functions dynamically as a structure just not only execute the financial decisions but also constructs it. With mechanisms such as digital nudging, these fintech platforms actively reinforce or change the attitudes and actions of users (Abis et al., 2025; Singh & Chouhan, 2025).

This outlook suggests that financing outcomes depends on the interplay between technology and human cognition. From a theoretical viewpoint, adoption and financing decisions cannot be understood and interpreted via technology or via psychology alone in isolation. As talked about, these outcomes are shaped by the continuous interactions between human psychology and digital platforms together (Bosnjak et al., 2020). Moreover, this work also focuses on the part that the design features also have some effect on the behavioural effect of humans. They are not passive, things like real time dashboards, rewards, interactive cues and push notifications also acts as a trigger, that results into the increase of such emotion-based responses, can reduce these cognition errors and can support a rather very more rational and logical decisions .

CONCLUSION

Digital finance has changed the way how an individual manage and spend their money, going afar from just a simple technological improvement. Instead of just making the transactions faster, fintech as moulded the psychological and cognitive environment in which a user makes decisions. With benefits such as speed, 24x7 access, and seamless smoothness, these digital platforms are totally changing the context in which these biases operates. Even though it is understood that technologies driven by data leads to a more rational and logical decisions, reality is a bit more complex than this given phrase. Technology is not removing the irrational behaviour and decisions; it is reshaping it. It is posing fintech not as a neutral tool but rather an environment shifting tool that shapes user behaviour by providing a broader understanding of these modern outcomes. Each interplay on these digital platforms shows a very complex synergy between human biases and cognition and the algorithmic structures of the digital platforms. While this outlook gives a very useful framework, it also shows us the need for more empirical research. Further research should focus more on how these design platforms, smooth transactions, and these nudges can influence these biases and financial outcomes among different demographic groups. Robust empirical measures is vital for ensuring that these digital finance environments are actually designed to support the users rather than exploiting their limitations.

REFERENCES

- [1] Abis, D., Pia, P., & Limbu, Y. (2025). FinTech and consumers: A systematic review and integrative framework. *Management Decision*, 63(1), 49–75. <https://doi.org/10.1108/MD-07-2023-1136>
- [2] Adepeju, A. S., Ojuade, S., Eneh, F. I., Olisa, A. O., & Odozor, L. A. (2023). Gamification of Savings and Investment Products. *Research Journal in Business and Economics*, 1(1), 88–100. <https://doi.org/10.61424/rjbe.v1i1.437>
- [3] Afjal, M. (2023). Bridging the financial divide: A bibliometric analysis on the role of digital financial services within FinTech in enhancing financial inclusion and economic development. *Humanities and Social Sciences Communications*, 10(645). <https://doi.org/10.1057/s41599-023-02086-y>
- [4] Aifuwa, H. O., Musa, S., Gold, N. O., & Usman, M. K. (n.d.). BOARD COGNITIVE DIVERSITY AND FIRM PERFORMANCE NEXUS: EVIDENCE FROM NIGERIA | *International Journal of Management, Innovation & Entrepreneurial Research*. Retrieved March 30, 2026, from <https://mgesjournals.com/ijmier/article/view/ijmier.2020.629>
- [5] Amorim, D. P. de L. (2025). Positioning Herbert Simon within Behavioral Finance. *Qeios*. <https://doi.org/10.32388/TGU90H>
- [6] Aoun, D., Rahal, R., Sfeir, L., & Maalouf, N. J. A. (2026). Understanding Millennials' Financial Behavior: The Role of Fintech Adoption, Financial Literacy, and the Mediating Effect of Financial Attitudes in a Crisis-Affected Emerging Economy. *International Journal of Financial Studies*, 14(2). <https://doi.org/10.3390/ijfs14020035>
- [7] Arner, D. W., Buckley, R. P., Zetsche, D. A., & Veidt, R. (2020). Sustainability, FinTech and Financial Inclusion. *European Business Organization Law Review*, 21, 7–35. <https://doi.org/10.1007/s40804-020-00183-y>
- [8] Barber, B. M., & Odean, T. (2001). Boys will be Boys: Gender, Overconfidence, and Common Stock Investment. *The Quarterly Journal of Economics*, 116(1), 261–292. <https://doi.org/10.1162/003355301556400>
- [9] Bosnjak, M., Ajzen, I., & Schmidt, P. (2020). The Theory of Planned Behavior: Selected Recent Advances and Applications. *Europe's Journal of Psychology*, 16(3), 352–356. <https://doi.org/10.5964/ejop.v16i3.3107>
- [10] Choudhary, P., & Thenmozhi, M. (2024). Fintech and financial sector: ADO analysis and future research agenda. *International Review of Financial Analysis*, 93, 103201. <https://doi.org/10.1016/j.irfa.2024.103201>
- [11] Danbolt, J., Eshraghi, A., & Lukas, M. (2021). Investment transparency and the disposition effect. *European Financial Management*, 28(3), 834–865. <https://doi.org/10.1111/eufm.12329>
- [12] Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- [13] Fersi, M., Boujelbene, M., & Arous, F. (2023). Microfinance's digital transformation for sustainable inclusion. *European Journal of Management and Business Economics*, 32(5), 525–559. <https://doi.org/10.1108/EJMBE-10-2022-0332>
- [14] FSB. (2019, February 14). FinTech and market structure in financial services: Market developments and potential financial stability implications. *Financial Stability Board*. <https://www.fsb.org/2019/02/fintech-and-market-structure-in-financial-services-market-developments-and-potential-financial-stability-implications/>
- [15] Ghosh, P., & Golder, U. (2026). Exploring the effects of FinTech adoption on traditional banking: A systematic literature review on opportunities and challenges. *Digital Business*, 6(1), 100163. <https://doi.org/10.1016/j.digbus.2026.100163>
- [16] Goldstein, I., Wei Jiang, & G Andrew Karolyi. (2019). To FinTech and Beyond. *The Review of Financial Studies*, 32(5), 1647–1661. <https://doi.org/10.1093/rfs/hhz025>

- [17] Gomber, P., Koch, J.-A., & Siering, M. (2017). Digital Finance and FinTech: Current research and future research directions. *Journal of Business Economics and Management*, 87, 537–580. <https://link.springer.com/article/10.1007/s11573-017-0852-x>
- [18] Huo, W., Xiohui, W., Zulfiqar, M., Chand, A., & Ullah, M. R. (2024). Communication dynamics: Fintech's role in promoting sustainable cashless transactions. *Humanities and Social Sciences Communications*, 11(1), 1368. <https://doi.org/10.1057/s41599-024-03729-4>
- [19] Jünger, M., & Mietzner, M. (2020). Banking goes digital: The adoption of FinTech services by German households. *Finance Research Letters*, 34, 101260. <https://doi.org/10.1016/j.frl.2019.08.008>
- [20] Kiky, A., Atahau, A. D. R., Mahastanti, L. A., & Supatmi, S. (2024). Framing effect and disposition effect: Investment decisions tools to understand bounded rationality. *Review of Behavioral Finance*, 16(5), 883–903. <https://doi.org/10.1108/RBF-11-2023-0311>
- [21] Kurnianingsih, A., Noviani, L., Alvita, M., & Haerani, A. (2024). FOMO in Digital Consumer Behavior: A Systematic Review of Theories, Strategies, and Psychological Outcomes (2010–2024). *Dirosatuna: Journal of Islamic Studies*, 7(2), 126–148. <https://doi.org/10.31538/dirosatuna.v7i2.8781>
- [22] Lee, I., & Shin, Y. J. (2018). Fintech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons*, 61(1), 35–46. <https://doi.org/10.1016/j.bushor.2017.09.003>
- [23] Lo, A. W., & Repin, D. V. (2002). The Psychophysiology of Real-Time Financial Risk Processing. *Journal of Cognitive Neuroscience*, 14(3), 323–339. <https://doi.org/10.1162/089892902317361877>
- [24] Mufassiro, A., Zaki, A., Mustaqim, M., & Putrihadiningrum, D. C. (2025). The Effect of Financial Technology and Self-Control on Impulsive Buying: The Moderating Role of Income. *SIMAK*, 23(01), 121–137. <https://doi.org/10.35129/simak.v23i01.623>
- [25] Munongo, S., & Pooe, D. (2025). The influence of small and medium-sized enterprise financial literacy on Fintech adoption in a fourth industrial revolution era. *South African Journal of Economic and Management Sciences*, 28(1), 14. <https://doi.org/10.4102/sajems.v28i1.6246>
- [26] Ragu-Nathan, T. S., Tarafdar, M., Ragu-Nathan, B. S., & Tu, Q. (2008). The Consequences of Technostress for End Users in Organizations: Conceptual Development and Empirical Validation. *Information Systems Research*, 19(4). <https://doi.org/10.1287/isre.1070.0165>
- [27] Rahman, Md. M., & Hossain, Md. E. (2025). Synergy of governance, finance, and technology for sustainable natural resource management. *Journal of Open Innovation: Technology, Market, and Complexity*, 11(1), 100468. <https://doi.org/10.1016/j.joitmc.2025.100468>
- [28] Sahu, M., Uddin, F., & Hossain, M. B. (2025). Exploring the Psychological Drivers of Cryptocurrency Investment Biases: Evidence from Indian Retail Investors. *International Journal of Financial Studies*, 13(4). <https://doi.org/10.3390/ijfs13040219>
- [29] SHEFRIN, H., & STATMAN, M. (1985). The Disposition to Sell Winners Too Early and Ride Losers Too Long: Theory and Evidence. *The Journal of Finance*, 40(3), 777–790. <https://doi.org/10.1111/j.1540-6261.1985.tb05002.x>
- [30] Shefrin, H., & Statman, M. (2000). Behavioral Portfolio Theory. *The Journal of Financial and Quantitative Analysis*, 35(2), 127–151. <https://doi.org/10.2307/2676187>
- [31] Simonn, F. C. (2025). Past, Present, and Future Research Trajectories on Retail Investor Behaviour: A Composite Bibliometric Analysis and Literature Review. *International Journal of Financial Studies*, 13(2). <https://doi.org/10.3390/ijfs13020105>
- [32] Singh, M., & Chouhan, N. (2025). Psychology Meets Finance: Unpacking Behavioral Factors in Green Investment Trends. In *Neuromarketing's Role in Sustainable Finance* (pp. 39–56). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-9117-4.ch003>
- [33] Sumantri, E., Samudra, A. A., & Suradika, A. (2024). Global tax avoidance and evasion: A landscape through insights from a systematic literature review and bibliometric analysis. *JIPD*, 8(9), 8073. <https://doi.org/10.24294/jipd.v8i9.8073>
- [34] Thakor, A. V. (2020). Fintech and banking: What do we know? *Journal of Financial Intermediation*, 41, 100833. <https://doi.org/10.1016/j.jfi.2019.100833>
- [35] Tversky, A., & Kahneman, D. (1974). Judgment under Uncertainty: Heuristics and Biases. *Science*, 185(4157), 1124–1131. <https://www.jstor.org/stable/1738360>
- [36] Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward A Unified View. 27(3), 425–478. <https://doi.org/10.2307/30036540>