
Guest editorial: The dark side of FinTech: unintended consequences and ethical consideration of FinTech adoption

Guest editorial

1

In the contemporary era of globalization, businesses consistently prioritize and recognize technology as a crucial factor for gaining a competitive advantage in the marketplace (Cham *et al.*, 2022; Loh *et al.*, 2023). Since its inception, technology has significantly transformed both the consumer experience and the operational strategies of businesses. Among all competitive industries, the financial and banking sector is presently undergoing a significant transformation due to disruptive technological innovation, especially with the emergence of Financial Technology (Allen *et al.*, 2022; Luo *et al.*, 2022). Financial technology, commonly referred to as “FinTech,” encompasses information technology-based innovations and sophisticated software programs that strive to enhance the effectiveness of the financial ecosystem (Muthukannan *et al.*, 2020; Coffie *et al.*, 2021). As a result of the growing popularity of online commerce and increased smartphone penetration, the financial and banking industry is compelled to respond to the existing challenging and demanding market atmosphere by implementing FinTech innovations such as digital wallets, paperless lending and digitized money (Ooi and Tan, 2022; Dang *et al.*, 2023). Given the growing potential of FinTech, Boston Consulting Group (BCG) and QED Investors have reported that FinTech market revenues are projected to grow from approximately \$0.25 trillion to \$1.5 trillion by 2030 (bcg.com, 2023). It has also been stated that the Asia–Pacific (APAC) region is on track to surpass the United States, with a predicted compound annual growth rate (CAGR) of 27% thanks to the high number of small and medium-sized enterprises, tech-savvy youth, a growing middle class and a significant underbanked population in emerging APAC nations like China, Indonesia and India.

Since the emergence of FinTech, numerous major corporations like Apple, Paypal Holdings Inc., Samsung, Afterpay, Alibaba Group, Robinhood Markets Inc., Tencent Holdings Ltd., Klarna and various others have embraced and benefited from the favorable momentum of this innovation (Tan *et al.*, 2022). Past scholarly research in FinTech has consistently documented that the use of financial technology and innovation offers numerous benefits to both consumer and business markets (Hua and Huang, 2021; Huang *et al.*, 2021). For example, the emergence of FinTech in the consumer market has facilitated the provision of insurance services, investment opportunities, substitute payment methods such as loans, cash transfers, digital wallets and various other offerings within this industry. From a business perspective, the use of FinTech has yielded several advantages, including the provision of alternative financial products compared to traditional banks, the ability to offer personalized services, reduced operational expenses and the facilitation of rapid and seamless payment systems. The above discussion on the potential of FinTech underscores its unquestionable significance as a burgeoning trend in the global financial ecosystem. This emerging phenomenon has garnered considerable interest from industry stakeholders and consumer groups (Cumming *et al.*, 2023; Sheng, 2021).

While FinTech has the potential to offer significant advantages to economies and businesses, it’s important to acknowledge the limitations and drawbacks associated with this technological innovation. The growing number of businesses entering the FinTech industry



and adopting online platforms has raised concerns about the security of financial transactions and the protection of consumers' privacy (Yuan *et al.*, 2022). For instance, according to the Global Fintech Survey report by PwC, 56% of respondents indicated that privacy and information security concerns were viewed as the greatest threats to the FinTech industry's growth (Eren, 2021). In addition, previous research has indicated that several concerns persist about FinTech adoption. These concerns encompass matters such as data breaches, users' inertia, ethical dilemmas, trust, obstacles to adoption, safeguarding consumer interests and upholding financial integrity (Thakor, 2020; Macchiavello and Siri, 2022).

In addition to the above, the profound influence of FinTech necessitates a fresh approach to effectively address existing shortcomings and obstacles. Therefore, it is imperative to conduct further research on the 'dark side' and potential adverse outcomes arising from the adoption of FinTech. In light of the considerations mentioned above, the primary objective of this Special Issue (SI) is to make a valuable contribution to the existing research environment by providing a platform for researchers to challenge the existing status quo and elevate the discourse surrounding the dark side of FinTech research. Since the launch of this SI, we have received submissions from various research perspectives, including theoretical, methodological and multidisciplinary approaches. While all the submitted works are commendable and of high quality, only six full papers were accepted for this SI after a thorough evaluation of their relevance to the theme of this SI.

In the first paper, Relja *et al.* (2024) explore and examine the impact of psychological factors in the context of the adoption of buy-now-pay-later (BNPL) services in the UK. The data for this study were collected from 533 BNPL users using the story stem completion method. The findings indicate that psychological determinants have varying degrees of influence on BNPL adoption and may lead to unintended consequences among users. This paper contributes to the limited existing literature by delving into the determinants of BNPL adoption and challenging the prevailing conceptualization of perceived payment formats.

In the second paper, the study conducted by Sampat *et al.* (2024) centered on examining the negative aspects associated with the adoption of FinTech, specifically from the viewpoint of developers in the FinTech industry. This study utilized a qualitative method (e.g. semi-structured interviews) to gather data from a sample of 23 developers in the Nigerian FinTech industry. The results were analyzed using NVivo software. The outcome of the thematic analysis found that three themes, namely technical inability, regulatory irresponsibility and customer vulnerability were found to be the profound barriers to the advancement of the FinTech industry in Nigeria. In summary, this study provides a fresh perspective from the viewpoint of developers, shedding light on the "dark side" of FinTech adoption.

In the third paper, Alalwan *et al.* (2024) conducted a research study to investigate the influence of the personalization-privacy paradox on users' intention to use contactless payments, a topic that arguably hasn't been well-covered in the existing literature. The data utilized in this study were collected from a sample of 297 individuals who are active users of contactless payments in Saudi Arabia. The data collection process involved the administration of an online questionnaire. The analysis findings indicated that privacy invasion and personalization significantly influenced users' perceived value of information disclosure. Furthermore, the study delved into the interrelationship among perceived severity, structural assurance, response cost, self-efficacy, privacy invasion, perceived value resulted from information disclosure, perceived personalization and continued intention to use.

In the fourth paper, Raj *et al.* (2024) conducted a study examining the impact of materialism on BNPL usage and its potential translation into compulsive and impulsive buying behaviors. The data set comprised responses from a total of 556 individuals, which were obtained via an online survey. These data were subsequently subjected to analysis

using structural equation modeling techniques. It is interesting to note from this study that BNPL usage significantly impacts impulse buying but not compulsive buying behavior. In summary, this study contributes to the body of BNPL literature and underscores its influence on consumer behavior.

In the fifth paper, [Asif *et al.* \(2024\)](#) focus on the categories of risks that could potentially influence the development of the financial technology industry. They conducted a bibliometric analysis, retrieving academic papers related to the subject matter from the Web of Science Core Collection database through the PRISMA approach. These papers were then subjected to descriptive analysis and keyword analysis to identify the most influential themes within the investigation. The analysis results reveal that the most frequent keywords include “money laundering,” “default risk,” “operational risk,” “risk management,” “financial stability risk,” “systematic risk,” “corporate governance,” “credit risk,” and “crises.” This study contributes to our current understanding of the hazards and concerns associated with the financial technology sector that the banking industry may encounter.

In the final article, [Aw *et al.* \(2024\)](#) examine the resistance to the adoption of robo-advisors in their study, specifically from the perspectives of justice and privacy. This study complements past research that predominantly focused on the technology acceptance paradigm. Grounded in social actors’ theory and justice theory, the present study also explores the interrelationships among perceived autonomy, perceived anthropomorphism, perceived concern, perceived justice, perceived intrusiveness and resistance. The researchers obtained a dataset consisting of 217 responses by administering an online survey questionnaire. The acquired data was then subjected to analysis using the PLS-SEM approach. The outcome of the study indicated that perceived autonomy and perceived anthropomorphism have a positive influence on perceived justice. Furthermore, perceived justice has a negative impact on privacy concerns and perceived intrusiveness, while privacy concerns and perceived intrusiveness are positively associated with resistance to robo-advisors.

The review of the aforementioned works conclusively highlights underlying issues related to risks, administration, governance, privacy, perceived justice and costs as examples that could potentially hinder the growth of the FinTech industry. Hence, additional attention and research are needed to explore this aspect further to better understand the barriers or dark side of FinTech adoption among users. Such exploration would also require an awareness of this area of research, especially in the current modern business landscape that demands advanced knowledge and the integration of artificial intelligence into our daily lives. While FinTech has been regarded as a promising disruptive technology in the financial sector, the literature addressing the dark side of its adoption and its impact on research is still relatively limited to date. This situation represents a significant research gap that needs to be addressed to gain a better understanding of this innovation. Therefore, the editors of this SI would like to propose a research agenda for further exploration in the areas that are not limited to, as follows:

- (1) What security and privacy concerns could influence FinTech adoption among consumers or businesses?
- (2) What ethical concerns could influence FinTech adoption among consumers or businesses?
- (3) What are the gray areas associated with FinTech adoption for users (i.e. consumers or businesses)?
- (4) What barriers do users (i.e. consumers or businesses) face in adopting FinTech?
- (5) What types of risks are perceived by users (i.e. consumers or businesses) when adopting FinTech?

- (6) What factors hinder the responsible use of FinTech among users (i.e. consumers or businesses)?
- (7) What challenges do firms face in adopting and integrating FinTech into their business operations?
- (8) What issues are related to problematic, deviant and addictive patterns of FinTech use?
- (9) What adverse effects does FinTech have on individuals, organizations and society?

Finally, we would like to seize this occasion to extend our appreciation to all the anonymous reviewers who have worked behind the scenes, rendering their expertise and service to help the authors improve their work and ensure the quality of the publications in this SI. We would also like to thank all the authors who submitted their work to this SI for publication consideration and shared their latest research findings. Last but not least, our sincere appreciation goes to the Editor-in-Chief of the *International Journal of Bank Marketing*, Professor Hooman Estelami, for his unconditional support for this SI and for entrusting us with its editorial tasks from the very beginning. We hope that this SI will contribute to a greater understanding of this area of study by advancing existing FinTech research and practice in the future.

Keng-Boon Ooi

*UCSI Graduate Business School, UCSI University Kuala Lumpur Campus,
Kuala Lumpur, Malaysia;
FORE School of Management, New Delhi, India;
College of Management, Chang Jung Christian University, Tainan, Taiwan and
Swinburne University of Technology–Sarawak Campus, Kuching, Malaysia*

Tat-Huei Cham

*UCSI Graduate Business School, UCSI University Kuala Lumpur Campus,
Kuala Lumpur, Malaysia;
Tashkent State University of Economics, Tashkent, Uzbekistan and
Faculty of Accountancy and Management,
Universiti Tunku Abdul Rahman–Kampus Bandar Sungai Long, Kajang, Malaysia*

Garry Wei-Han Tan

*UCSI Graduate Business School, UCSI University, Kuala Lumpur, Malaysia;
Swinburne University of Technology–Sarawak Campus, Kuching, Malaysia;
College of Business Administration, Adamson University, Manila, Philippines and
Department of Business Administration, IQRA University, Islamabad, Pakistan*

Mostafa Al-Emran

*Faculty of Engineering and IT, The British University in Dubai,
Dubai, United Arab Emirates and
Department of Computer Techniques Engineering, Dijlah University College,
Al Dourah, Iraq, and*

Yun-Chia Tang

*Department of International Business, College of Management, Tunghai University,
Taichung, Taiwan*

References

- Alalwan, A.A., Baabdullah, A.M., Al-Debei, M.M., Raman, R., Alhitmi, H.K., Abu-ElSamen, A.A. and Dwivedi, Y.K. (2024), "Fintech and contactless payment: help or hindrance? The role of invasion of privacy and information disclosure", *International Journal of Bank Marketing*, Vol. 42 No. 1, pp. 66-93, doi: [10.1108/IJBM-08-2022-0339](https://doi.org/10.1108/IJBM-08-2022-0339).
- Allen, F., Gu, X. and Jagtiani, J. (2022), "Fintech, cryptocurrencies, and CBDC: financial structural transformation in China", *Journal of International Money and Finance*, Vol. 124, 102625, doi: [10.1016/j.jimonfin.2022.102625](https://doi.org/10.1016/j.jimonfin.2022.102625).
- Asif, M., Lodhi, R.N., Sarwar, F. and Ashfaq, M. (2024), "Dark side whitewashes the benefits of FinTech innovations: a bibliometric overview", *International Journal of Bank Marketing*, Vol. 42 No. 1, pp. 113-132, doi: [10.1108/IJBM-10-2022-0438](https://doi.org/10.1108/IJBM-10-2022-0438).
- Aw, E.C.X., Leong, L.Y., Hew, J.J., Rana, N.P., Tan, T.M. and Jee, T.W. (2024), "Counteracting dark sides of robo-advisors: justice, privacy and intrusion considerations", *International Journal of Bank Marketing*, Vol. 42 No. 1, pp. 133-151, doi: [10.1108/IJBM-10-2022-0439](https://doi.org/10.1108/IJBM-10-2022-0439).
- bcg.com (2023), "Fintech projected to become a \$1.5 trillion industry by 2030", available at: <https://www.bcg.com/press/3may2023-fintech-1-5-trillion-industry-by-2030>.
- Cham, T.H., Cheah, J.H., Memon, M.A., Fam, K.S. and László, J. (2022), "Digitalization and its impact on contemporary marketing strategies and practices", *Journal of Marketing Analytics*, Vol. 10 No. 2, pp. 103-105, doi: [10.1057/s41270-022-00167-6](https://doi.org/10.1057/s41270-022-00167-6).
- Coffie, C.P.K., Hongjiang, Z., Mensah, I.A., Kiconco, R. and Simon, A.E.O. (2021), "Determinants of FinTech payment services diffusion by SMEs in Sub-Saharan Africa: evidence from Ghana", *Information Technology for Development*, Vol. 27 No. 3, pp. 539-560, doi: [10.1080/02681102.2020.1840324](https://doi.org/10.1080/02681102.2020.1840324).
- Cumming, D., Johan, S. and Reardon, R. (2023), "Global fintech trends and their impact on international business: a review", *Multinational Business Review*, Vol. 31 No. 3, pp. 413-436, doi: [10.1108/mbr-05-2023-0077](https://doi.org/10.1108/mbr-05-2023-0077).
- Dang, T.-Q., Tan, G.W.-H., Aw, E.C.-X., Ooi, K.-B., Metri, B. and Dwivedi, Y.K. (2023), "How to generate loyalty in mobile payment services? An integrative dual SEM-ANN analysis", *International Journal of Bank Marketing*, Vol. 41 No. 6, pp. 1177-1206, doi: [10.1108/ijbm-05-2022-0202](https://doi.org/10.1108/ijbm-05-2022-0202).
- Eren, B.A. (2021), "Determinants of customer satisfaction in chatbot use: evidence from a banking application in Turkey", *The International Journal of Bank Marketing*, Vol. 39 No. 2, pp. 294-311, doi: [10.1108/ijbm-02-2020-0056](https://doi.org/10.1108/ijbm-02-2020-0056).
- Hua, X. and Huang, Y. (2021), "Understanding China's fintech sector: development, impacts and risks", *European Journal of Finance*, Vol. 27 Nos 4-5, pp. 321-333, doi: [10.1080/1351847x.2020.1811131](https://doi.org/10.1080/1351847x.2020.1811131).
- Huang, J., Sena, V., Li, J. and Ozdemir, S. (2021), "Message framing in P2P lending relationships", *Journal of Business Research*, Vol. 122, pp. 761-773, doi: [10.1016/j.jbusres.2020.06.065](https://doi.org/10.1016/j.jbusres.2020.06.065).
- Loh, X.M., Lee, V.H., Leong, L.Y., Aw, E.C.X., Cham, T.H., Tang, Y.C. and Hew, J.J. (2023), "Understanding consumers' resistance to pay with cryptocurrency in the sharing economy: a hybrid SEM-fsQCA approach", *Journal of Business Research*, Vol. 159, 113726, doi: [10.1016/j.jbusres.2023.113726](https://doi.org/10.1016/j.jbusres.2023.113726).
- Luo, S., Sun, Y., Yang, F. and Zhou, G. (2022), "Does fintech innovation promote enterprise transformation? Evidence from China", *Technology in Society*, Vol. 68, 101821, doi: [10.1016/j.techsoc.2021.101821](https://doi.org/10.1016/j.techsoc.2021.101821).
- Macchiavello, E. and Siri, M. (2022), "Sustainable finance and fintech: can technology contribute to achieving environmental goals? A preliminary assessment of 'green fintech' and 'sustainable digital finance'", *European Company and Financial Law Review*, Vol. 19 No. 1, pp. 128-174, doi: [10.1515/ecfr-2022-0005](https://doi.org/10.1515/ecfr-2022-0005).
- Muthukannan, P., Tan, B., Gozman, D. and Johnson, L. (2020), "The emergence of a fintech ecosystem: a case study of the Vizag Fintech Valley in India", *Information & Management*, Vol. 57 No. 8, 103385, doi: [10.1016/j.im.2020.103385](https://doi.org/10.1016/j.im.2020.103385).

-
- Ooi, K.B. and Tan, G.W.H. (2022), "Guest editorial: the impact of COVID-19 pandemic on mobile payment", *International Journal of Bank Marketing*, Vol. 40 No. 5, pp. 937-938, doi: [10.1108/ijbm-07-2022-616](https://doi.org/10.1108/ijbm-07-2022-616).
- Raj, V.A., Jasrotia, S.S. and Rai, S.S. (2024), "Intensifying materialism through buy-now pay-later (BNPL): examining the dark sides", *International Journal of Bank Marketing*, Vol. 42 No. 1, pp. 94-112, doi: [10.1108/IJBM-08-2022-0343](https://doi.org/10.1108/IJBM-08-2022-0343).
- Relja, R., Ward, P. and Zhao, A.L. (2024), "Understanding the psychological determinants of buy-now-pay-later (BNPL) in the UK: a user perspective", *International Journal of Bank Marketing*, Vol. 42 No. 1, pp. 7-37, doi: [10.1108/IJBM-07-2022-0324](https://doi.org/10.1108/IJBM-07-2022-0324).
- Sampat, B., Mogaji, E. and Nguyen, N.P. (2024), "The dark side of FinTech in financial services: a qualitative enquiry into FinTech developers' perspective", *International Journal of Bank Marketing*, Vol. 42 No. 1, pp. 38-65, doi: [10.1108/IJBM-07-2022-0328](https://doi.org/10.1108/IJBM-07-2022-0328).
- Sheng, T. (2021), "The effect of fintech on banks' credit provision to SMEs: evidence from China", *Finance Research Letters*, Vol. 39, 101558, doi: [10.1016/j.frl.2020.101558](https://doi.org/10.1016/j.frl.2020.101558).
- Tan, G.W.H., Ooi, K.B., Dwivedi, Y.K. and Wei, J. (2022), "Guest editorial: advancing mobile payment research in the age of digital acceleration", *Internet Research*, Vol. 32 No. 6, pp. 1753-1756, doi: [10.1108/intr-12-2022-943](https://doi.org/10.1108/intr-12-2022-943).
- Thakor, A.V. (2020), "Fintech and banking: what do we know?", *Journal of Financial Intermediation*, Vol. 41, 100833, doi: [10.1016/j.jfi.2019.100833](https://doi.org/10.1016/j.jfi.2019.100833).
- Yuan, Y.P., Tan, G.W.H. and Ooi, K.B. (2022), "Does COVID-19 pandemic motivate privacy self-disclosure in mobile fintech transactions? A privacy-calculus-based dual-stage SEM-ANN analysis", *IEEE Transactions on Engineering Management*, pp. 1-15.