

# **Digital Financial Literacy, Financial and Subjective Well-being: The Case of Indonesian Migrant Fish Workers in Taiwan**

Rizky Dwi Putri<sup>1</sup>, Wen-Chi Huang<sup>2</sup>

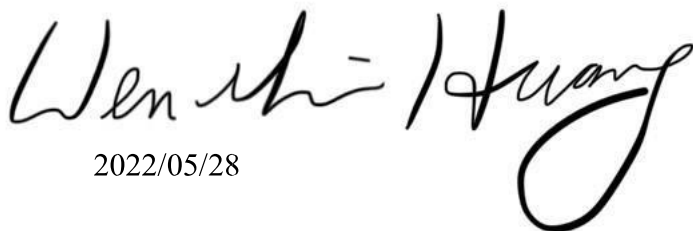
<sup>1</sup>Department of Tropical Agriculture and International Cooperation, National Pingtung University of Science and Technology, Pingtung 912, Taiwan

<sup>2</sup>Department of Agribusiness Management, National Pingtung University of Science and Technology, Pingtung 912, Taiwan

## **Abstract**

The widespread internet use encourages the rapid updates of digital financial services (DFS) that significantly enhance financial inclusion and improve personal financial management. Consequently, a new challenge is linking FL to digital literacy (DL) and assessing their dual effect on financial outcomes and quality of life, especially for migrant fish workers (MFW) as a vulnerable group who will benefit from the ease of accessing these DFS. However, several studies have investigated FL and DL as determinants of personal finance, with little attention to finding the link concept of digital financial literacy (DFL) and the well-being of MFW. Therefore, this study aims to analyze the effect of DFL on migrant fishers' well-being: financial and subjective well-being. Data will be collected from Indonesian migrant fish workers (IdMFW) in the nearshore fishery sector in Taiwan. A primary cross-sectional data set will be analyzed to estimate IdMFW's DFL factors using a two-stage least square model and a two-stage predictor substitution to explore the relationship between DFL and well-being. In addition, this research may suggest that DFL can allow IdMFW to realize financial freedom, especially for enjoying a quality of life within the limited contract term.

**Keywords:** adult literacy, economic empowerment, financial technology, mobile money, quality of life



2022/05/28

## References

- Anna, Z., Yusuf, A. A., Alisjahbana, A. S., Ghina, A. A., & Rahma. (2019). Are fishermen happier? Evidence from a large-scale subjective well-being survey in a lowermiddleincome country. *Marine Policy*, *106*(May), 103559. <https://doi.org/10.1016/j.marpol.2019.103559>
- Azeez, N. P. A., & Akhtar, S. M. J. (2021). Digital Financial Literacy and Its Determinants: An Empirical Evidences from Rural India. *South Asian Journal of Social Studies and Economics*, *June*, 8–22. <https://doi.org/10.9734/sajsse/2021/v11i1230279>
- Apiors, E. K., & Suzuki, A. (2018). Mobile money, individuals' payments, remittances, and investments: Evidence from the Ashanti Region, Ghana. *Sustainability (Switzerland)*, *10*(5). <https://doi.org/10.3390/su10051409>
- Bennett, N. J., Blythe, J., White, C. S., & Campero, C. (2021). Blue growth and blue justice: Ten risks and solutions for the ocean economy. *Marine Policy*, *125*(June 2020), 104387. <https://doi.org/10.1016/j.marpol.2020.104387>
- DataReportal. (2022). Digital 2022 Taiwan. Retrieved March 30, 2022, from <https://datareportal.com/reports/digital-2022-taiwan>
- Demir, A., Pesqué-Cela, V., Altunbas, Y., & Murinde, V. (2022). Fintech, financial inclusion and income inequality: a quantile regression approach. *European Journal of Finance*, *28*(1), 86–107. <https://doi.org/10.1080/1351847X.2020.1772335>
- Fang, J., Hao, W., & Reyers, M. (2022). Financial advice, financial literacy and social interaction: what matters to retirement saving decisions? *Applied Economics*, *00*(00), 1–24. <https://doi.org/10.1080/00036846.2022.2053654>
- Hiott, A. E., Grzywacz, J. G., Davis, S. W., Quandt, S. A., & Arcury, T. A. (2008). Migrant farmworker stress: Mental health implications. In *Journal of Rural Health* (Vol. 24, Issue 1, pp. 32–39). <https://doi.org/10.1111/j.1748-0361.2008.00134.x>
- Karakara, A. A. W., Sebu, J., & Dasmani, I. (2021). Financial literacy, financial distress and socioeconomic characteristics of individuals in Ghana. *African Journal of Economic and Management Studies*, *13*(1), 29–48. <https://doi.org/10.1108/AJEMS-03-2021-0101>
- Kass-Hanna, J., Lyons, A. C., & Liu, F. (2021). Building financial resilience through financial and digital literacy in South Asia and Sub-Saharan Africa. *Emerging Markets Review*, *August*, 100846. <https://doi.org/10.1016/j.ememar.2021.100846>
- Li, T. C., Chu, C. C., Meng, F. C., Li, Q., Mo, D., Li, B., & Tsai, S. B. (2018). Will happiness improve the psychological integration of migrant workers? *International Journal of Environmental Research and Public Health*, *15*(5). <https://doi.org/10.3390/ijerph15050900>
- Limbu, Y. B., & Sato, S. (2019). Credit card literacy and financial well-being of college students: A moderated mediation model of self-efficacy and credit card number. *International Journal of Bank Marketing*, *37*(4), 991–1003. <https://doi.org/10.1108/IJBM-04-2018-0082>
- Lo Prete, A. (2022). Digital and financial literacy as determinants of digital payments and personal finance. *Economics Letters*, *213*, 110378. <https://doi.org/10.1016/j.econlet.2022.110378>
- Lyons, A. C., & Kass-Hanna, J. (2021). A methodological overview to defining and measuring

- “digital” financial literacy. *Financial Planning Review*, 4(2). <https://doi.org/10.1002/cfp2.1113>
- Lyons, A. C., & Kass-Hanna, J. (2021). Financial Inclusion, Financial Literacy and Economically Vulnerable Populations in the Middle East and North Africa. *Emerging Markets Finance and Trade*, 57(9), 2699–2738. <https://doi.org/10.1080/1540496X.2019.1598370>
- Ma, W., Nie, P., Zhang, P., & Renwick, A. (2020). Impact of Internet use on economic well-being of rural households: Evidence from China. *Review of Development Economics*, 24(2), 503–523. <https://doi.org/10.1111/rode.12645>
- Maksum, A. (2021). Indonesian post-migrant workers: A challenging problem for human security. *Social Sciences & Humanities Open*, 4(1), 100223. <https://doi.org/10.1016/j.ssaho.2021.100223>
- Marschke, M., Vandergeest, P., Havice, E., Kadfak, A., Duker, P., Isopescu, I., & MacDonnell, M. (2021). COVID-19, instability and migrant fish workers in Asia. *Maritime Studies*, 20(1), 87–99. <https://doi.org/10.1007/s40152-020-00205-y>
- Morgan, P. J., Huang, B., & Trinh, L. Q. (2019). The Need to Promote Digital Financial Literacy for the Digital Age. In *Realizing Education for All in the Digital Age - ADBI Institute*.
- Nie, P., Ma, W., & Sousa-Poza, A. (2021). The relationship between smartphone use and subjective well-being in rural China. *Electronic Commerce Research*, 21(4), 983–1009. <https://doi.org/10.1007/s10660-020-09397-1>
- OECD. (2018). *G20/OECD INFE Policy Guidance on Digitalisation and Financial Literacy*. 1–25. <http://www.oecd.org/finance/G20-OECD-INFE-Policy-Guidance-DigitalisationFinancial-Literacy-2018.pdf>
- Parlasca, M. C., Johnen, C., & Qaim, M. (2022). Use of mobile financial services among farmers in Africa: Insights from Kenya. *Global Food Security*, 32(November 2021), 100590. <https://doi.org/10.1016/j.gfs.2021.100590>
- Prakash, N., Alagarsamy, S., & Hawaldar, A. (2022). Demographic characteristics influencing financial wellbeing: a multigroup analysis. *Managerial Finance*. <https://doi.org/10.1108/MF-09-2021-0466>
- Saguin, K. (2020). Returning broke and broken? Return migration, reintegration and transnational social protection in the Philippines. *Migration and Development*, 9(3), 352–368. <https://doi.org/10.1080/21632324.2020.1787100>
- Sarpong-Kumankoma, E. (2021). Financial literacy and retirement planning in Ghana. *Review of Behavioral Finance*. <https://doi.org/10.1108/RBF-05-2020-0110>
- The Indonesian Agency for the Protection of Indonesian Migrant Workers (BP2MI). PMI Data Protection and Placement for 2021, Retrieved March 30, 2022, available <https://bp2mi.go.id/statistik-detail/data-penempatan-dan-pelindungan-pmi-periode-tahun-2021>
- The Indonesian Agency for the Protection of Indonesian Migrant Workers (BP2MI). International Work Info, Retrieved March 30, 2022, available [https://jobsinfo.bp2mi.go.id/vacancy?sektor\\_id=7&negara\\_id=23&skema\\_id=](https://jobsinfo.bp2mi.go.id/vacancy?sektor_id=7&negara_id=23&skema_id=)
- Voukelatou, V., Gabrielli, L., Miliou, I., Cresci, S., Sharma, R., Tesconi, M., & Pappalardo, L. (2021). Measuring objective and subjective well-being: dimensions and data sources. In *International Journal of Data Science and Analytics*, 11(4), 279–309.

Wilmarth, M. J. (2021). Financial and Economic Well-Being: A Decade Review from Journal of Family and Economic Issues. *Journal of Family and Economic Issues*, 42(s1), 124–130. <https://doi.org/10.1007/s10834-020-09730-8>

Yen, K. W., & Liu Huang, L. C. (2021). A review of migrant labour rights protection in distant water fishing in Taiwan: From laissez-faire to regulation and challenges ahead. *Marine Policy*, 134(September), 104805. <https://doi.org/10.1016/j.marpol.2021.104805>