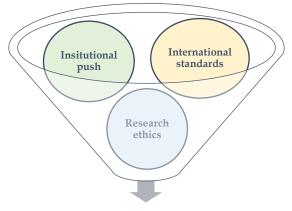
Chapter 6 The question of quality

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Previous chapters in this book have discussed the quantity aspect of research on social sciences and humanities (SSH) in Vietnam. We have touched on the national productivity, the rise of scientific publications, and the ways Vietnamese researchers adapt to the changes. This chapter now turns to the quality aspect of research publications. In order to achieve the outcome of high-quality publications, there has to be a synthesis of at least three elements: (i) an institutional push, whether that be professional or financial incentives, state or non-state resources, (ii) the application of international standards, such as indexed peer-reviewed journals, replicable and reproducible data and research projects, and openly accessible, and (iii) adherence to research ethics. The framework in Figure 6.1 is used to examine the issue of quality in Vietnam's SSH research.



Quality publications

Figure 6.1. Three fundamental elements for producing quality publications

The institutional factor

In this chapter, we have discussed criteria for quality control in research regarding impact factor, the big names, and the global movements that improve the transparency and reliability of science. The question remains: what would be qualified as quality science? At the moment, Web of Science, Scopus and their scores are being used as first-hand measures of the excellence of research. An WoS/Scopus-indexed journal is supposedly better than a nonindexed one, and within the indexed journals, the higher the scores, the better the quality. Then there are the big names in academia, which constitute various characteristics considered as gold standards. However, sole reliance on the name of a journal and its impact factor or CiteScore is not the ultimate way to define the quality of science. Publications in good journals, great journals, even big-name journals, are not exempted from retraction, nor from failing to have the reported results replicated. Thus, the scientific community is pushing towards a new age of transparency with open science. Preregistration, data repository, open access and open peer review all share the same goal: secure the finest quality of scientific research. In Vietnam, WoS/Scopus standards are widely used to set the bar for scientists, and slowly, the standards are becoming the norms. However, in order to foster a vibrant and sustainable academic ecosystem that yields authentically high-quality outputs, measures for quality control must be developed on the basis of good understanding and knowledge of science from all stakeholders, including the general public and policy makers. Effective communication of science is, therefore, fundamental to the future prospect of the Vietnamese science community.

References

- Alves, M. (2009). Loanwords in Vietnamese. In *Loanwords in the world's languages: A comparative handbook* (pp. 617–637). Berlin: Walter de Gruyter.
- Arvan, M. (2016, August 15). Potential risks & benefits of publishing in lower-ranked journals. *The Philosophers' Cocoon*. Retrieved July 16, 2019: https://philosopherscocoon.typepad.com/blog/2016/08/ri sks-a.html
- Ball, P. (2018, February 18). China's great leap forward in science.TheGuardian.Retrievedfrom

https://www.theguardian.com/science/2018/feb/18/chin a-great-leap-forward-science-research-innovationinvestment-5g-genetics-quantum-internet

- Barnett, I., Ariana, P., Petrou, S., Penny, M. E., Duc, L. T., Galab, S., ... Boyden, J. (2013). Cohort Profile: The Young Lives Study. *International Journal of Epidemiology*, 42(3), 701–708. https://doi.org/10.1093/ije/dys082
- Cyranoski, D. (2018). China introduces 'social' punishments for scientific misconduct. *Nature*, 564, 312. https://doi.org/10.1038/d41586-018-07740-z
- D. Jones, M., & Anderson Crow, D. (2017). How can we use the 'science of stories' to produce persuasive scientific stories? *Palgrave Communications*, 3(1), 53. https://doi.org/10.1057/s41599-017-0047-7
- Else, H. (2018). Radical open-access plan could spell end to journal subscriptions. *Nature*, 561, 17. https://doi.org/10.1038/d41586-018-06178-7
- Grafton, Q. R., Kompas, T., Che, T. N., Chu, L., & Hilborn, R. (2012). BMEY as a fisheries management target. *Fish and Fisheries*, 13(3), 303–312. https://doi.org/10.1111/j.1467-2979.2011.00444.x
- Hanieh, S., Ha, T. T., Simpson, J. A., Casey, G. J., Khuong, N. C., Thoang, D. D., ... Biggs, B.-A. (2013). The Effect of Intermittent Antenatal Iron Supplementation on Maternal and Infant Outcomes in Rural Viet Nam: A Cluster Randomised Trial. *PLOS Medicine*, 10(6), e1001470. https://doi.org/10.1371/journal.pmed.1001470
- Ho, M.-T., & Ho, M.-T. (2018). Total SciComm All out science communication. OSF Preprints. https://doi.org/10.31219/osf.io/r5fxp
- Ho, T. Q., Hoang, V.-N., Wilson, C., & Nguyen, T.-T. (2018). Ecoefficiency analysis of sustainability-certified coffee production in Vietnam. *Journal of Cleaner Production*, 183, 251–260. https://doi.org/10.1016/j.jclepro.2018.02.147
- Ichiko, F. (2006). Japanese spin-offs face struggle for survival. *Nature*, 441, 280–281. https://doi.org/10.1038/441280a
- Nikkei. (2017, July 27). R&D budgets in Japan soaring to recordbreaking levels. *Nikkei Asian Review*. Retrieved August 9, 2019: <u>https://asia.nikkei.com/Business/R-D-budgets-in-</u> Japan-soaring-to-record-breaking-levels

- Jia, H. (2018, June 2). China gets serious about research integrity. *Nature Index*. Retrieved July 16, 2019: https://www.natureindex.com/news-blog/china-getsserious-about-research-integrity
- Kearnes, M. B., Macnaghten, P. M., & Wilsdon, J. (2006). *Governing at the Nanoscale: People, Policies and Emerging Technologies.* London: Demos.
- Labaree, D. (2018, December 18). Gold among the dross. *Aeon*. Retrieved July 15, 2019: https://aeon.co/essays/highereducation-in-the-us-is-driven-by-a-lust-for-glory
- Loken, E., & Gelman, A. (2017). Measurement error and the replication crisis. *Science*, *355*(6325), 584. https://doi.org/10.1126/science.aal3618
- Manh, H. D. (2015). Scientific publications in Vietnam as seen from Scopus during 1996–2013. *Scientometrics*, 105(1), 83–95. https://doi.org/10.1007/s11192-015-1655-x
- NAFOSTED. (2019). Chương trình hỗ trợ nâng cao năng lực khoa học và công nghệ quốc gia [Programs to promote national science and technology capability]. *NAFOSTED*. Retrieved July 15, 2019: https://nafosted.gov.vn/chuong-trinh-taitro/chuong-trinh-ho-tro-nang-cao-nang-luc-khoa-hoc-vacong-nghe-quoc-gia/
- Nature. (1978). Vietnam-an inexpensive form of help. *Nature*. https://doi.org/10.1038/271099a0
- Nguyen, Q., Kim, T., & Papanastassiou, M. (2018). Policy uncertainty, derivatives use, and firm-level FDI. *Journal of International Business Studies*, 49(1), 96–126. https://doi.org/10.1057/s41267-017-0090-z
- Nguyen, T. T., Tran, T. D., Tran, T., La, B., Nguyen, H., & Fisher, J. (2015). Postpartum change in common mental disorders among rural Vietnamese women: Incidence, recovery and risk and protective factors. *British Journal of Psychiatry*, 206(2), 110–115. https://doi.org/10.1192/bjp.bp.114.149138
- Nguyen, T. V., Ho-Le, T. P., & Le, U. V. (2017). International collaboration in scientific research in Vietnam: An analysis of patterns and impact. *Scientometrics*, 110(2), 1035–1051. https://doi.org/10.1007/s11192-016-2201-1
- Nguyen, T. V., & Pham, L. T. (2011). Scientific output and its relationship to knowledge economy: An analysis of ASEAN

countries. *Scientometrics*, *89*(1), 107–117. https://doi.org/10.1007/s11192-011-0446-2

- Persson, L. Å., Nga, N. T., Målqvist, M., Thi Phuong Hoa, D., Eriksson, L., Wallin, L., ... Ewald, U. (2013). Effect of facilitation of local maternal-and-newborn stakeholder groups on neonatal mortality: Cluster-randomized controlled trial. *PLOS Medicine*, 10(5), e1001445. https://doi.org/10.1371/journal.pmed.1001445
- Ravindranath, V., Dang, H.-M., Goya, R. G., Mansour, H., Nimgaonkar, V. L., Russell, V. A., & Xin, Y. (2015). Regional research priorities in brain and nervous system disorders. *Nature*, 527, S198.
- Reich, E. S. (2013). Science publishing: The golden club. *Nature*, 502, 291–293. https://doi.org/10.1038/502291a
- Statista. (2019). Number of televisions owned in Vietnam from 2011 to 2018 (per 1,000 population). *Statista*. Retrieved July 16, 2019: https://www.statista.com/statistics/618400/amount-oftelevisions-in-vietnam/
- Tregoning, J. (2018). How will you judge me if not by impact factor? *Nature*, 558, 345. https://doi.org/10.1038/d41586-018-05467-5
- van Vliet, N., Mertz, O., Heinimann, A., Langanke, T., Pascual, U., Schmook, B., ... Ziegler, A. D. (2012). Trends, drivers and impacts of changes in swidden cultivation in tropical forestagriculture frontiers: A global assessment. *Global Environmental Change*, 22(2), 418–429. https://doi.org/10.1016/j.gloenvcha.2011.10.009
- Vuong, Q.-H. (2018a). "How did researchers get it so wrong?" The acute problem of plagiarism in Vietnamese social sciences and humanities. *European Science Editing*, 44(3), 56–58. https://doi.org/10.20316/ESE.2018.44.18003
- Vuong, Q.-H. (2018b). The (ir)rational consideration of the cost of science in transition economies. *Nature Human Behaviour*, 2(1), 5–5. https://doi.org/10.1038/s41562-017-0281-4
- Vuong, Q.-H. (2019a). The harsh world of publishing in emerging regions and implications for editors and publishers: The case of Vietnam. *Learned Publishing*, DOI: 10.1002/LEAP.1255

- Vuong Q. -H. (2019b). Breaking barriers in publishing demands a proactive attitude. *Nature Human Behaviour 3;* doi: 10.1038/s41562-019-0667-6.
- Vuong, Q.-H., Bui, Q.-K., La, V.-P., Vuong, T.-T., Nguyen, V.-H. T., Ho, M.-T., ... Ho, M.-T. (2018). Cultural additivity: Behavioural insights from the interaction of Confucianism, Buddhism and Taoism in folktales. *Palgrave Communications*, 4(1), 143, DOI: 10.1057/s41599-018-0189-2
- Williams, E. (2005). Too few university spin-out companies?. Warwick University. Retrieved July 15, 2019: https://warwick.ac.uk/services/ventures/spin-outs.pdf
- Woolston, C. (2016). Salaries: Reality check. *Nature*, 537(7621), 573–576. https://doi.org/10.1038/nj7621-573a
- Wouters, P., Sugimoto, C. R., Larivière, V., McVeigh, M. E., Pulverer, B., Rijcke, S. de, & Waltman, L. (2019). Rethinking impact factors: Better ways to judge a journal. *Nature*, 569(7758), 621, DOI: 10.1038/d41586-019-01643-3
- Xin, H. (2016). Five-year plan boosts basic research funding. *Science*, *351*(6280), 1382–1382, DOI: science.351.6280.1382