

Free Full Text from Publisher

Look Up Full Text

Find PDF

Full Text Options

Export...

Add to Marked List

1 of 1

## Examining Technological and Productivity Change in the Islamic Banking Industry

By: [Nugrohowati, RNI](#) (Nugrohowati, Rindang Nuri Isnaini)<sup>[1]</sup>; [Fakhrunnas, F](#) (Fakhrunnas, Faaza)<sup>[1]</sup>; [Haron, R](#) (Haron, Razali)<sup>[2]</sup>

PERTANIKA JOURNAL OF SOCIAL SCIENCE AND HUMANITIES

Volume: 28 Issue: 4 Pages: 3355-3374

DOI: 10.47836/pjssh.28.4.47

Published: DEC 2020

Document Type: Article

### Abstract

Islamic banking dominates the largest market share of global Islamic finance assets. Thus, the performance of Islamic banks is crucial in shaping the future development of Islamic finance. This study aims to examine the performance of Islamic banks in the perspective of technological and productivity change based on the country level assessment. By adopting the Malmquist Index analysis, this study selected 44 Islamic banks from the top ten countries that had the largest Islamic banking asset for the period from 2015 to 2018. The findings reveal that the average productivity of Islamic banks has increased during the study period. Productivity improvements were supported by technological innovation, which significantly increased the level of productivity. Nevertheless, the high-tech expansion was not followed by an improvement in the efficiency level. This finding explains that the development of banking technology is not able to fully support the development of products and services.

### Keywords

Author Keywords: Islamic banking; Malmquist Index; productivity; technological

KeyWords Plus: EFFICIENCY

### Author Information

#### Reprint Address:

Universitas Islam Indonesia Univ Islam Indonesia, Fac Business & Econ, Dept Econ, Ring Rd Utara, Yogyakarta 55584, Indonesia.

Corresponding Address: Nugrohowati, RNI (corresponding author)

+ Univ Islam Indonesia, Fac Business & Econ, Dept Econ, Ring Rd Utara, Yogyakarta 55584, Indonesia.

#### Addresses:

+ [1] Univ Islam Indonesia, Fac Business & Econ, Dept Econ, Ring Rd Utara, Yogyakarta 55584, Indonesia

+ [2] Int Islamic Univ Malaysia, IIUM Inst Islamic Banking & Finance, Kuala Lumpur 53100, Malaysia

E-mail Addresses: [rindangnuri@uii.ac.id](mailto:rindangnuri@uii.ac.id); [fakhrunnasfaaza@uii.ac.id](mailto:fakhrunnasfaaza@uii.ac.id); [hrazali@iiu.edu.my](mailto:hrazali@iiu.edu.my)

### Publisher

UNIV PUTRA MALAYSIA PRESS, SERDANG, SELANGOR, 00000, MALAYSIA

### Categories / Classification

Research Areas: Social Sciences - Other Topics

Web of Science Categories: Social Sciences, Interdisciplinary

[See more data fields](#)

### Citation Network

In Web of Science Core Collection

0

Times Cited

Create Citation Alert

28

Cited References

[View Related Records](#)

New! You may also like ... BETA

Industrial efficiency analysis based on the spatial panel model.

EURASIP JOURNAL ON WIRELESS COMMUNICATIONS AND NETWORKING (2021)

[View all suggestions](#)

### Use in Web of Science

Web of Science Usage Count

1

Last 180 Days

1

Since 2013

[Learn more](#)

This record is from:

Web of Science Core Collection

- Emerging Sources Citation Index

[Suggest a correction](#)

If you would like to improve the quality of the data in this record, please [suggest a correction](#).

## Cited References: 28

Showing 28 of 28 [View All in Cited References page](#)

(from Web of Science Core Collection)

### 1. Productivity of Malaysian banks after mergers and acquisition

Times Cited: 1

By: Abd-Kadir, H.; Selamat, Z.; Idros, M.

European Journal of Economics, Finance and Administrative Sciences Volume: 24 Pages: 111-122 Published: 2010

Retrieved July 3, 2019, from

URL: [https://www.europeanjournalofeconomicsfinanceandadministrativesciences.com/ejefas\\_issues.html](https://www.europeanjournalofeconomicsfinanceandadministrativesciences.com/ejefas_issues.html)

2. **Efficiency of Qatari banking industry: an empirical investigation** Times Cited: 8  
 By: Abdul-Wahab, Abdul-Hamid; Haron, Razali  
 INTERNATIONAL JOURNAL OF BANK MARKETING Volume: 35 Issue: 2 Pages: 298-318 Published: 2017
  
3. **Efficiency and productivity change in the banking industry: Empirical evidence from New Zealand banks** Times Cited: 1  
 By: Adjei-Frimpong, K.; Gan, C.; Ying, L.; et al.  
 Investment Management and Financial Innovations Volume: 12 Issue: 1 Pages: 19-25 Published: 2015  
 Retrieved July 3, 2019, from  
 URL: <https://businessperspectives.org/author/kofi-adjei-frimpong>  
[\[Show additional data\]](#)
  
4. **The efficiency of Islamic and conventional commercial banks in Malaysia** Times Cited: 19  
 By: Ahmad, Suraya; Rahman, Abdul Rahim Abdul  
 INTERNATIONAL JOURNAL OF ISLAMIC AND MIDDLE EASTERN FINANCE AND MANAGEMENT Volume: 5 Issue: 3 Pages: 241-263  
 Published: 2012
  
5. **Are Saudi banks productive and efficient?** Times Cited: 11  
 By: Akhtar, Mohammad Hanif  
 INTERNATIONAL JOURNAL OF ISLAMIC AND MIDDLE EASTERN FINANCE AND MANAGEMENT Volume: 3 Issue: 2 Pages: 95-112  
 Published: 2010
  
6. **Iran and the Islamic finance crown** Times Cited: 1  
 By: [Anonymous].  
 The Diplomat Published: 2015  
 Retrieved July 5, 2020, from  
 URL: <https://thediplomat.com/2015/06/iran-and-the-islamic-finance-crown/#:~:text=Iran%20is%20one%20of%20the,business%20around%20sharia%2Dcompliant%20products.>
  
7. **Efficiency of financial institutions: International survey and directions for future research** Times Cited: 1,331  
 By: Berger, AN; Humphrey, DB  
 EUROPEAN JOURNAL OF OPERATIONAL RESEARCH Volume: 98 Issue: 2 Pages: 175-212 Published: APR 16 1997
  
8. **THE ECONOMIC-THEORY OF INDEX NUMBERS AND THE MEASUREMENT OF INPUT, OUTPUT, AND PRODUCTIVITY** Times Cited: 1,581  
 By: CAVES, DW; CHRISTENSEN, LR; DIEWERT, WE  
 ECONOMETRICA Volume: 50 Issue: 6 Pages: 1393-1414 Published: 1982
  
9. **Effects of macroeconomics factors toward efficiency in banking** Times Cited: 1  
 By: Fakhrunnas, F.; Nahar, F. H.; Albana, H. F.  
 JEJAK Journal of Economic and Policy Volume: 11 Issue: 2 Pages: 390-400 Published: 2018
  
10. **Efficiency of Islamic banks using two stage approach of data envelopment analysis** Times Cited: 2  
 By: Firdaus, M. F.; Hosen, M. N.  
 Bulletin of Monetary Economics and Banking Volume: 16 Issue: 2 Pages: 155-176 Published: 2013
  
11. **The X-efficiency in Islamic banks** Times Cited: 3  
 By: Hassan, M.K.  
 Islamic Economic Studies Volume: 13 Pages: 50-78 Published: 2006
  
12. **Efficiency determinants and dynamic efficiency changes in Latin American banking industries** Times Cited: 1  
 By: Hassan, M. K.; Sanchez, B.  
 NFI WORKING PAPERS Volume: 2007 -WP-32 Published: 2007  
 Retrieved April 11, 2019, from  
 URL: <https://ideas.repec.org/p/nfi/nfiwps/2007-wp-32.html>
  
13. **Title: [not available]** Times Cited: 7  
 Group Author(s): Islamic Financial Services Board  
 Islamic financial services industry: stability report 2019 Published: 2019  
 accessed 1 September 2020 available at
  
14. **Study of the efficiency of Islamic commercial banks in Indonesia** Times Cited: 1  
 By: Karimah, S.; Novianti, T.; Effendi, J.  
 Al Muzaraah Volume: 4 Issue: 1 Pages: 33-43 Published: 2016
  
15. **Measuring the impact of the global financial crisis on efficiency and productivity of the banking system in South Africa** Times Cited: 9  
 By: Maredza, A.; Ikhide, S.  
 Mediterr. J. Soc. Sci. Volume: 4 Issue: 6 Pages: 553-568 Published: 2013
  
16. **Bank productivity in Africa** Times Cited: 1  
 By: Nartey, S. B.; Osei, K. A.; Sarpong-Kumankoma, E.  
 International Journal of Productivity and Performance Management Volume: 69 Issue: 9 Pages: 1-27 Published: 2019

17. **The Analysis of the Efficiency of BPR-S: Production Function Approach Vs Financial Ratios Approach** Times Cited: 3  
 By: Nashihin, Muhammad; Harahap, Ludwina  
 5TH INDONESIA INTERNATIONAL CONFERENCE ON INNOVATION, ENTREPRENEURSHIP, AND SMALL BUSINESS (IICIES 2013) Book Series:  
 Procedia Social and Behavioral Sciences Volume: 115 Pages: 188-197 Published: 2014
  
18. **A DEA-based Malmquist Productivity Index approach in assessing performance of commercial banks: Evidence from Tanzania** Times Cited: 2  
 By: Raphael, G.  
 European Journal of Business and Management Volume: 5 Issue: 6 Pages: 25-35 Published: 2013  
 Retrieved May 27, 2019, from  
 URL: <https://www.iiste.org/Journals/index.php/EJBM/article/view/4683/4762>
  
19. **Indeks Malmquist untuk pengukuran efisiensi dan produktivitas bank syariah di Indonesia** Times Cited: 1  
**Malmquist Index for measuring the efficiency and productivity of Islamic banks in Indonesia**  
 By: Rusydiana, A. S.  
 Jurnal Ekonomi dan Pembangunan Volume: 26 Issue: 1 Pages: 47-58 Published: 2018
  
20. **INPUTS, OUTPUTS, AND A THEORY OF PRODUCTION AND COST AT DEPOSITORY FINANCIAL INSTITUTIONS** Times Cited: 749  
 By: SEALEY, CW; LINDLEY, JT  
 JOURNAL OF FINANCE Volume: 32 Issue: 4 Pages: 1251-1266 Published: 1977
  
21. **Evolution of bank efficiency in Brazil: A DEA approach** Times Cited: 122  
 By: Staub, Roberta B.; da Silva e Souza, Geraldo; Tabak, Benjamin M.  
 EUROPEAN JOURNAL OF OPERATIONAL RESEARCH Volume: 202 Issue: 1 Pages: 204-213 Published: APR 1 2010
  
22. **The sources and determinants of productivity growth in the Malaysian Islamic banking sector: a nonstochastic frontier approach** Times Cited: 6  
 By: Sufian, F.; Haron, R.  
 International Journal of Accounting and Finance Volume: 1 Issue: 2 Pages: 193-215 Published: 2008
  
23. Title: [not available] Times Cited: 23  
 By: SUFIAN F  
 MIDDLE E BUSINESS EC Volume: 20 Pages: 1 Published: 2008
  
24. **The efficiency of Islamic banking industry in Malaysia Foreign vs domestic banks** Times Cited: 39  
 By: Sufian, Fadzlan  
 HUMANOMICS Volume: 23 Issue: 3 Pages: 174-192 Published: 2007
  
25. Title: [not available] Times Cited: 1  
 Group Author(s): Thomson Reuters  
 State of the Islamic economy report 2018/ 2019 Published: 2018  
 Retrieved July 13, 2019, from
  
26. **The determinants of bank's efficiency in Indonesia** Times Cited: 4  
 By: Widiarti, A.; Siregar, H.; Andati, T.  
 Bulletin of Monetary Economics and Banking Volume: 18 Pages: 129-156 Published: 2015
  
27. Title: [not available] Times Cited: 1  
 Group Author(s): World Economic Forum  
 Is new technology hurting our productivity? Published: 2018  
 Retrieved May 19, 2020, from
  
28. **Financial efficiency analysis in Islamic banks: Turkey and Malaysia models** Times Cited: 1  
 By: Yildirim, I.  
 Journal of Economics, Finance and Accounting Volume: 2 Issue: 3 Pages: 289-300 Published: 2017

Showing 28 of 28 [View All in Cited References page](#)

Clarivate

Accelerating innovation

© 2021 Clarivate Copyright notice Terms of use Privacy statement Cookie policy

Sign up for the Web of Science newsletter Follow us

