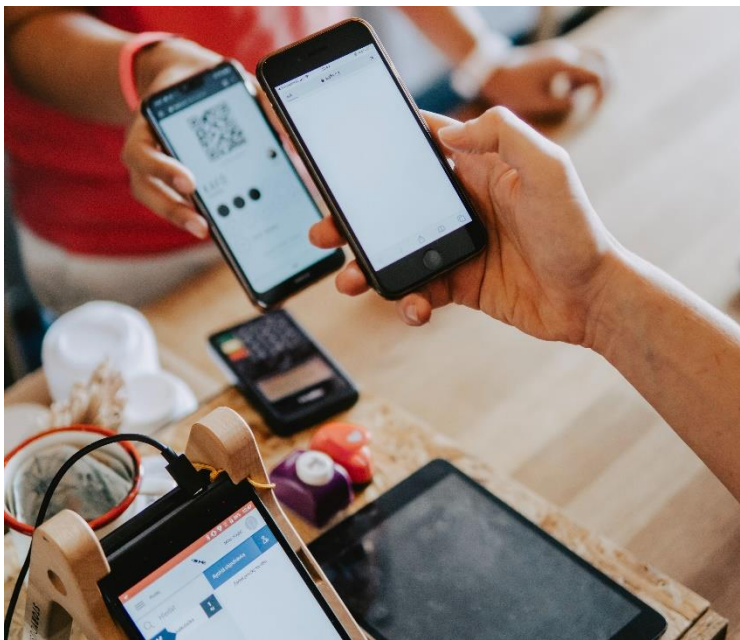


# Digital Banking and Financial Inclusion

Rachel Gong and Maia Hollins-Kirk



## Introduction

Digital banking has expanded around the globe, bringing the potential to reduce costs and increase efficiency and transparency. Digital banking has also opened new pathways to financial inclusion. As internet access spreads to remote parts of the world, digital banks can reach people who are traditionally underserved (i.e. underbanked). These benefits have helped digital banks grow in popularity in many countries.

In April 2022, Bank Negara Malaysia (BNM) announced five recipients of digital banking licenses<sup>1</sup> (see Table 1). One of the

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<sup>1</sup> Bank Negara Malaysia (2022)

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This view was prepared by Dr Rachel Gong and Maia Hollins-Kirk from the Khazanah Research Institute (KRI). The authors are grateful for the valuable comments from Yin Shao Loong and Shereen Hazirah Hishamudin.

Author's email address:  
[rachel.gong@krinstitute.org](mailto:rachel.gong@krinstitute.org)  
[mhollinskirk@college.harvard.edu](mailto:mhollinskirk@college.harvard.edu)

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criteria for assessing the 29 applicants for the digital banking licenses was the provision of financial inclusion<sup>2</sup>. Digital banking does not automatically lead to financial inclusion if traditional gatekeeping processes such as the requirement of proof of income over a certain amount persist.

In this article, we examine the potential for digital banking to improve financial inclusion in Malaysia, recognizing the need for a supporting ecosystem and infrastructure in order for digital banks to achieve this objective.

**Table 1: List of 5 consortiums that were awarded digital banking licenses**

Recipients of Digital Banking Licenses	
<b>Financial Services Act 2013 (FSA)</b>	<ul style="list-style-type: none"> <li>• Consortium of Boost Holdings Sdn Bhd and RHB Bank Berhad</li> <li>• Consortium led by GXS Bank Pte. Ltd. and Kuok Brothers Sdn Bhd</li> <li>• Consortium led by Sea Limited and YTL Digital Capital Sdn Bhd</li> </ul>
<b>Islamic Financial Services Act 2013 (IFSA)</b>	<ul style="list-style-type: none"> <li>• Consortium of AEON Financial Service Co., Ltd., AEON Credit Service (M) Berhad and MoneyLion Inc.</li> <li>• Consortium led by KAF Investment Bank Sdn Bhd</li> </ul>

Source: BNM (2022)

## Limited financial inclusion in traditional banking

BNM reports that in 2015 92% of Malaysian bank customers had active deposit accounts<sup>3</sup>. While this indicates regular banking activity among this group, financial inclusion goes beyond deposits and withdrawals. Financial inclusion should include access to financial services and products such as credit, loans, and insurance<sup>4</sup>.

These services may not be readily available to all. In 2015, only 25% of Malaysia's adult population had financing accounts, and only 16% had life insurance<sup>5</sup>. Many informal workers in Malaysia receive cash instead of direct deposits into their bank accounts<sup>6</sup>. Without verifiable documentation of income, informal workers may not have access to financial services provided by banks. Additionally, women, micro enterprises, youths, rural households, low-income individuals, and those with low financial literacy remain unserved or underserved in a traditional banking framework<sup>7</sup>.

Financial inclusion is one of BNM's primary goals as it aims to create an inclusive financial system with convenient accessibility, high take-up rates, responsible usage and high customer satisfaction. To achieve these outcomes, one of BNM's strategies is to employ technology-based innovative channels, products and services, such as digital banking<sup>8</sup>.

<sup>2</sup> Bank Negara Malaysia (2022)

<sup>3</sup> Bank Negara Malaysia, n.d.

<sup>4</sup> Bank Negara Malaysia, n.d.

<sup>5</sup> Bank Negara Malaysia, n.d.

<sup>6</sup> DOSM (2020)

<sup>7</sup> Alam and Asia Pacific University of Technology and Innovation (2021)

<sup>8</sup> Bank Negara Malaysia, n.d.

## Benefits of digital banking

Digital banking provides standard financial services associated with traditional banking such as savings accounts, loans, and payments facilities. For banks, digital banking has the potential to improve operational cost efficiency, financial inclusion, and customer experience. A report by the Asian Development Bank notes that digital finance can reduce, though not entirely close, the gap between financial needs and supply<sup>9</sup>.

Digital banks require significantly fewer resources and human labour compared to traditional banking. Aside from ATMs, digital banks have no physical presence. Not only are all financial services managed online, but many processes are fully automated, reducing the need for a large employee workforce and thus streamlining operations.

These online, automated, and AI-driven processes help digital banks keep their cost-to-income ratio per account much lower than brick-and-mortar banks. This allows digital banks to offer customers higher savings interest rates<sup>10</sup>. These competitive interest and lending rates allow more customers to access credit, increasing the potential for greater financial inclusion.

Furthermore, proof of income is no longer a prerequisite for digital banking. Digital bank customers can be onboarded without proof of income and can build their credit history and reputation by data monitoring of their financial behaviour. This can allow people with irregular incomes more access to financial services.

In traditional banking, it can take several weeks for banks to verify their customers' identities, delaying the onboarding process. Transformative electronic "Know Your Customer" (eKYC) methods have allowed digital banks to simplify onboarding processes<sup>11</sup>. Using fast, simplified, and online onboarding processes, digital banking can cater to groups that struggle to set up bank accounts or obtain additional financial services.

## Need for digital banking management and governance

While digital banking has the potential to increase financial inclusion, key policy and regulatory measures and infrastructure are needed to support the inclusive digital transformation of the financial services sector.

### Reliable internet connectivity, especially in rural and remote areas

A high-quality and stable communications network is needed for digital banking. Underserved communities are likely to live in rural areas<sup>12</sup>, which means that increasing digital connectivity access and availability in these areas is a prerequisite of financial inclusion through digital banking.

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<sup>9</sup> Asian Development Bank (2017)

<sup>10</sup> Mhlanga (2020)

<sup>11</sup> PiChain (2020)

<sup>12</sup> Bank Negara Malaysia, n.d.

China demonstrates the importance of extensive connectivity for digital banking. Given its large land area, it is difficult to access brick-and-mortar banks in rural areas of China<sup>13</sup>. However, digital banks have become more widely adopted given China's widespread internet coverage, even in rural and remote areas<sup>14</sup>. Internet access allows individuals in rural areas to access financial services that were not available to them before.

In Malaysia, 96.9% of urban households have internet access, compared to 89.2% of rural households<sup>15</sup>. The urban-rural gap in terms of access to computers is bigger, with 91% of urban households having access to a computer, compared to 76.3% of rural homes, with a negligible difference in mobile phone access (99% in both urban and rural homes).

Despite this urban-rural gap in ICT access, the overall low levels of financial inclusion suggest that the connectivity gap may not be the main barrier to financial inclusion. Instead, the challenge may lie in an urban-rural gap in digital and/or financial literacy, competency and experience. For digital banking to improve financial inclusion, there need to be improvements to device affordability and digital literacy, especially in rural areas.

### **Improvements in financial and digital literacy, especially among the underserved**

In addition to improving internet connectivity, improving financial and digital literacy is also critical to financial inclusion. Financial literacy has been a longstanding challenge in reaching the underserved; digital banking adds the element of digital literacy to this challenge. Skills to understand basic financing, saving, and investing are necessary for customers in both traditional and digital banks<sup>16</sup>. The ADB finds that low levels of financial literacy can hinder the uptake of digital banking<sup>17</sup>.

Earlier research by KRI<sup>18</sup> reports that seniors unfamiliar with technology such as online payments struggle to find appropriate education, guidance and support. They are vulnerable to financial fraud and scams. Improving digital literacy as well as financial literacy is an important part of financial inclusion.

### **Good governance of digital financial apps and services**

The five digital bank licensees are subject to BNM's regulations, but it will be important to monitor the development of alternative financial services apps as well. In India<sup>19</sup> and Mexico<sup>20</sup>, reports have emerged of digital loan apps punishing customers for not meeting their minimum

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<sup>13</sup> Marous et al. (2020)

<sup>14</sup> Marous et al. (2020)

<sup>15</sup> DOSM (2020)

<sup>16</sup> Runde (2015)

<sup>17</sup> Asian Development Bank (2017)

<sup>18</sup> KRI (2021)

<sup>19</sup> Christopher (2021)

<sup>20</sup> Contreras (2022)

payments either by locking their phones or by harassing their contacts. These sorts of disincentives are not conducive to financial inclusion.

Furthermore, much of the conversation around digital banking has focused on online payments<sup>21</sup>. Without good governance that prioritises inclusion by design, digital banking may offer up more services that realistically will only be accessed by those who are already banked.

Personal data protection and responsible data management to ensure appropriate access and use of user data will also be important governance areas. As well as cybersecurity protections against data leaks and data breaches, security measures must be properly implemented to protect against fraudulent transactions and scams. A responsive reporting and dispute resolution process needs to be instituted, given the absence of traditional bank branches.

### **Trust building between banks and customers**

In developing countries, research finds lack of confidence and trust in online banks to be barriers to digital banking adoption<sup>22</sup>. This concern occurs not just at the individual level but also at the firm level, which may hold back micro and small enterprises from reducing costs and increasing operational efficiency via digital banking<sup>23</sup>.

Adhering to regulations around personal data privacy and cybersecurity and offering transparency around how AI is used, for example, in loan approval processes, are two ways digital banks can help build trust with consumers.

### **Conclusion**

There are operational benefits to digital banking, and a multi-stakeholder approach is needed to enable digital banks to increase financial inclusion. This approach includes improving internet infrastructure, especially in rural areas, to enable access to digital banking, providing digital and financial literacy education to those who need it, and designing inclusive digital financial systems that offer financial services to all communities, especially those neglected by traditional banks. Good governance regulating how financial apps are used and how they manage personal data and strong cybersecurity are also needed. Without these key policy and regulatory measures and infrastructure, digital banking may not live up to its promise of improving financial inclusion.

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<sup>21</sup> Mar and Meynert (2022)

<sup>22</sup> Benamati and Serva (2007)

<sup>23</sup> Riyadh, Akter, and Islam (2009)

## References

- Alam, Nafis and Asia Pacific University of Technology and Innovation. 2021. "Digital Banking Is Key to Financial Inclusion in Malaysia." East Asia Forum. September 10, 2021. <https://www.eastasiaforum.org/2021/09/10/digital-banking-is-key-to-financial-inclusion-in-malaysia/>.
- Asian Development Bank. 2017. "Accelerating Financial Inclusion in South-East Asia with Digital Finance." Asian Development Bank and Oliver Wyman. <https://doi.org/10.22617/RPT178622-2>.
- Bank Negara Malaysia. 2022. "Five Successful Applicants for the Digital Bank Licences - Bank Negara Malaysia." April 29, 2022. <https://www.bnm.gov.my/-/digital-bank-5-licences>.
- . n.d. "Malaysia Experience in Financial Inclusion: Unlocking Shared Benefits for All through Inclusive Finance." <https://www.bnm.gov.my/documents/20124/1073866/Malaysia+Experience+in+Financial+Inclusion.pdf>.
- . n.d. "Malaysia's Financial Inclusion Framework." <https://www.bnm.gov.my/documents/20124/1073866/Malaysia%27s+Financial+Inclusion+Framework.pdf>.
- Benamati, John, and Mark Serva. 2007. "Trust and Distrust in Online Banking: Their Role in Developing Countries." *Information Technology for Development* 13 (April):161–75. <https://doi.org/10.1002/itdj.20059>.
- Christopher, Nilesh. 2021. "Loans That Hijack Your Phone Are Coming to India." *Rest of World*, March 18, 2021. <https://restofworld.org/2021/loans-that-hijack-your-phone-are-coming-to-india/>.
- Contreras, Erika Lilian. 2022. "Mexican Scam Loan Apps Will Edit Your Face onto X-Rated Photos and Send Them to Your Family." *Rest of World*. July 21, 2022. <https://restofworld.org/2022/mexico-scam-loan-apps/>.
- DOSM. 2020. "Informal Sector Work Force Survey Report, Malaysia, 2019," July, 8.
- KRI. 2021. *#NetworkedNation: Navigating Challenges, Realising Opportunities of Digital Transformation*. Kuala Lumpur: Khazanah Research Institute. [https://krinstitute.org/Publications-@-NetworkedNation-;\\_Navigating\\_Challenges,\\_Realising\\_Opportunities\\_of\\_Digital\\_Transformation\\_.aspx](https://krinstitute.org/Publications-@-NetworkedNation-;_Navigating_Challenges,_Realising_Opportunities_of_Digital_Transformation_.aspx).
- Mar, Pamela, and Barbara Meynert. 2022. "Can Digitalization Help Asia Finally Solve Its Financial Inclusion Challenge?" *Asia Global Online*. May 19, 2022. <https://www.asiaglobalonline.hku.hk/can-digitalization-help-asia-finally-solve-its-financial-inclusion-challenge>.
- Marous, Jim, Co-Publisher of The Financial Brand, CEO of the Digital Banking Report, and host of the Banking Transformed podcast. 2020. "WeBank: Insights From The World's Top Digital Bank." *The Financial Brand*. November 16, 2020. <https://thefinancialbrand.com/104213/digital-banking-transformed-podcast-china-webank-henry-ma/>.

- Mhlanga, David. 2020. "Industry 4.0 in Finance: The Impact of Artificial Intelligence (AI) on Digital Financial Inclusion." *International Journal of Financial Studies* 8 (3). Multidisciplinary Digital Publishing Institute:45. <https://doi.org/10.3390/ijfs8030045>.
- PiChain. 2020. "Digital KYC Customer Onboarding | EKYC Services | Video KYC | VCIP." Automated Compliance Solutions | For Enterprises | PiChain. June 29, 2020. <https://www.pichainlabs.com/digital-kyc-customer-onboarding/>.
- Riyadh, Al Nahian, Shahriar Akter, and Nayeema Islam. 2009. "The Adoption of E-Banking in Developing Countries: A Theoretical Model for SMEs." *International Review of Business Research Papers* 5 (6):212–30.
- Runde, Daniel F. 2015. "Financial Literacy: Challenges and Opportunities." 2015. <https://www.csis.org/analysis/financial-literacy-challenges-and-opportunities>.