proceedings

Abstract

Relationship between Digital Financial Inclusion and Country Development [†]

Marija Antonijević * and **Ivana Domazet**

Institute of Economic Sciences, 11000 Belgrade, Serbia; ivana.domazet@ien.bg.ac.rs
* Correspondence: marija.antonijevic@ien.bg.ac.rs

† Presented at the International Scientific Conference on Digitalization, Innovations & Sustainable Development: Trends and Business Perspectives, West Mishref, Kuwait, 29 November & 14 December 2023.

Keywords: financial inclusion; digital financial services; development; worldwide; Global Findex database 2021

1. Objectives

Improvements in ICT, digitization, and changes in individuals' behavior have contributed to the global transformation of the financial sector. The significance of digital channels lies in the fact that individuals can achieve a higher level of satisfaction by using the wide range of features banks provide via digital services [1]. Additionally, digital financial services (DFSs) can improve the state and reduce the gap in financial inclusion, especially in developing countries [2]. Therefore, possessing the required level of digital skills is essential in the digital economy [3–5].

Given that income represents a driver for executing digital banking activities, the main questions to be answered concern whether there is a linear relationship between the level of county development and the following variables:

1. Owning a financial institution account;
2. Using a mobile phone or the Internet to pay bills;
3. Making a digital in-store merchant payment using a mobile phone;
4. Receiving digital payments.

2. Methodology

The authors gathered data from publicly available databases for 116 countries worldwide in 2021 to examine the relationship between development and the mentioned variables. The development was measured according to the Gross National Income per capita (GNI p.c.). The data for the variables related to financial inclusion were gathered from the Global Findex database 2021. All of the studied variables were measured in a percentage of individuals. The authors used correlation analyses to examine the relationship between development and financial inclusion.

3. Results

The correlation analysis results show a statistically significant strong positive linear relationship between the development of a country and the following variables: (1) owning a financial institution account, (2) using a mobile phone or the Internet to pay bills, and (3) receiving digital payments. The authors found a moderately strong relationship between making a digital in-store merchant payment using a mobile phone and the level of development. These findings are in line with prior studies [6–15], and support the critical role that income, i.e., country development, plays in determining the use of digital banking services by citizens, and vice versa.

check for updates

Citation: Antonijević, M.; Domazet, I. Relationship between Digital Financial Inclusion and Country Development. *Proceedings* **2024**, *101*, 10. https://doi.org/10.3390/proceedings2024101010

Academic Editors: Farid Abdallah, Vladimir Simovic, Alper Erturk, Oualid Abidi, Faidon Theofanidis, Richard Rutter and Andri Ottesen

Published: 10 May 2024

4. Implications

This study's findings provide valuable insights into financial inclusion in the development context. The results represent a foundation for governments and bank managers to improve the affordability and accessibility of digital services for their citizens. Thus, the results emphasize the critical importance of addressing the financial inclusion challenge, particularly in low- and lower-middle-income countries (e.g., Sierra Leone, Cambodia, Egypt, Tunisia, Gaza and the West Bank, Tajikistan, Pakistan, Lebanon, Nicaragua), highlighting the essential role of relevant bodies.

5. Originality Value

No recent study has investigated the relationship between development and the usage of digital banking services globally using the latest available data for 2021. Regarding this, it is important to investigate individuals' behavior in times of COVID-19 regarding country development, considering the critical role of digital financial services.

6. Contributions

This paper will expand the literature in this research area, considering that no similar study has examined the relationship between development and individuals' behavior related to digital banking services using the latest available data and the new variable of making a digital in-store merchant payment using a mobile phone.

Author Contributions: Conceptualization, M.A. and I.D.; methodology, M.A.; software, M.A.; validation, I.D.; formal analysis, I.D.; investigation, M.A.; resources, M.A. and I.D.; data curation, M.A.; writing—original draft preparation, M.A. and I.D.; writing—review and editing, M.A. and I.D.; visualization, M.A. and I.D.; supervision, I.D.; project administration, M.A. and I.D.; funding acquisition, M.A. and I.D. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data sources for the variables are listed below. Financial inclusion, available online: https://www.worldbank.org/en/publication/globalfindex/Data (accessed on 20 September 2023); Gross National Income per capita, available online: https://data.worldbank.org/indicator/NY.GNP.PCAP.CD (accessed on 20 September 2023).

Acknowledgments: This paper was supported by the Ministry of Science, Technological Development and Innovation of the Republic of Serbia under contract number 451-03-47/2023-01/200005.

Conflicts of Interest: The authors declare no conflicts of interest.

References

1. Domazet, I.S.; Neogradi, S. Digital marketing and service industry. In *Managing Diversity, Innovation, and Infrastructure in Digital Business*; IGI Global: Hershey, PA, USA, 2019; pp. 20–40.
2. Antonijević, M.; Ljumović, I.; Ivanović, Đ. Is there a Gender Gap in Financial Inclusion Worldwide? *J. Women's Entrep. Educ.* **2022**, 79–96. [CrossRef]
3. Bradić-Martinović, A.; Banović, J. Assessment of digital skills in Serbia with focus on gender gap. *J. Women's Entrep. Educ.* **2018**, 54–67. [CrossRef]
4. Jevtić, B.; Vucekovic, M.; Tasić, S. The Effects of Digitalization and Skills on Women's Labor Market Inclusion-Serbian Gap Study. *J. Women's Entrep. Educ* **2023**, 58–75. [CrossRef]
5. Lazić, M.; Vukmirović, V.; Banović, J.; Simović, V.; Paunović, M. Digital Competences as a Precondition for an Inclusive Digital Economy-Is There a Gender Gap Among Persons with Disabilities in Serbia? *J. Women's Entrep. Educ* **2023**, 51–71. [CrossRef]
6. Cicchiello, A.F.; Kazemikhasragh, A.; Monferrá, S.; Girón, A. Financial inclusion and development in the least developed countries in Asia and Africa. *J. Innov. Entrep.* **2021**, *10*, 49. [CrossRef]
7. Park, C.Y.; Mercado, R. Understanding Financial Inclusion: What Matters and How It Matters (No. 1287). Working Paper. 2021. Available online: https://www.econstor.eu/bitstream/10419/249466/1/adbi-wp1287.pdf (accessed on 15 September 2023).
8. Llewellyn, D.T. Introduction: Financial inclusion: An overview of key issues. In *Inclusive Financial Development*; Edward Elgar Publishing: Cheltenham, UK, 2021; pp. 1–12.

9. Antonijević, M.; Ljumović, I.; Lukić, V. Are digital financial payments constrained by the country's income? Evidence from the Global Findex database. *Anal. Ekon. Fak. U Subotici.* **2021**, *57*, 115–129. [CrossRef]
10. Hlophe, N. Does financial development mean financial inclusion? A causal analysis for Eswatini. *Afr. Rev. Econ. Financ.* **2018**, *10*, 120–133.
11. Abdinoor, A.; Mbamba, U.O. Factors influencing consumers' adoption of mobile financial services in Tanzania. *Cogent Bus. Manag.* **2017**, *4*, 1392273. [CrossRef]
12. Bryson, D.; Atwal, G. Antecedents of attitude towards the adoption of internet banking in Senegal. *J. Innov. Econ.* **2013**, *11*, 33–54. [CrossRef]
13. Sulaiman, A.; Jaafar, N.I.; Mohezar, S. An overview of mobile banking adoption among the urban community. *Int. J. Mob. Commun.* **2007**, *5*, 157–168. [CrossRef]
14. Comin, D.; Mestieri, M. If technology has arrived everywhere, why has income diverged? *Am. Econ. J. Macroecon.* **2018**, *10*, 137–178. [CrossRef]
15. Herwadkar, S.; Verma, R.; Bilantu, P. Drivers of digital payments: A cross country study. *Reserve Bank India Bull.* **2019**, *73*, 21–33.