THE NEXUS OF REMITTANCE, GOVERNANCE, HUMAN CAPITAL, AND FINANCIAL INCLUSION IN ENHANCING FINANCIAL REACHABILITY IN SELECTED COUNTRIES

AHSAN ASLAM KHAN

DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA
SEPTEMBER 2025

THE NEXUS OF REMITTANCE, GOVERNANCE, HUMAN CAPITAL, AND FINANCIAL INCLUSION IN ENHANCING FINANCIAL REACHABILITY IN SELECTED COUNTRIES

By

AHSAN ASLAM KHAN

Thesis Submitted to
Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
In Fulfillment of the Requirement for the Degree of Doctor of Philosophy

Othman Yeop Abdullah Graduate School of Business

Kolej Perniagaan
(College of Business)

Universiti Utara Malaysia

PERAKUAN KERJA TESIS / DISERTASI
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa
(We, the undersigned, certify that)

AHSAN ASLAM KHAN

calon untuk Ijazah **DOCTOR OF PHILOSOPHY (ECONOMICS)**
(candidate for the degree of)

telah mengemukakan tesis / disertasi yang bertajuk:
(has presented his/her thesis / dissertation of the following title):

THE NEXUS OF REMITTANCE, GOVERNANCE, HUMAN CAPITAL, AND FINANCIAL INCLUSION IN ENHANCING FINANCIAL REACHABILITY IN SELECTED COUNTRIES.

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan. Sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada:
20 Mac 2025.

(That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:
20 March 2025.

Pengerusi Viva *(Chairman for Viva)* : **Prof. Dr. Mukaramah Binti Harun** Tandatangan *(Signature)*

Pemeriksa Luar (External Examiner) : **Prof. Dr. Zulkefly Bin Abdul Karim** Tandatangan *(Signature)*

Pemeriksa Dalam *(Internal Examiner)* : **Dr. Normizan Bin Bakar** Tandatangan *(Signature)*

Tarikh: **20 Mac 2025**

Nama Pelajar (Name of Student)	:	**Ahsan Aslam Khan**
Tajuk Tesis / Disertasi *(Title of the Thesis / Dissertation)*	:	**The Nexus of Remittance, Governance, Human Capital, and Financial Inclusion in Enhancing Financial Reachability in Selected Countries.**
Program Pengajian *(Programme of Study)*	:	**Doctor of Philosophy (Economics)**
Nama Penyelia/Penyelia-penyelia *(Name of Supervisor/Supervisors)*	:	**Dr. Mohamad Helmi Bin Hidthiir**
		Tandatangan
	:	**Dr. Tan Bee Wah**
		Tandatangan

PERMISSION TO USE

In presenting this thesis to fulfill the requirements for a postgraduate degree from Universiti Utara Malaysia, I agree that the Universiti Library may make it freely available for inspection. I further agree that permission for the copying of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or, in their absence, by the Dean of Othman Yeop Abdullah Graduate School of Business. It is understood that any copying, publication, or use of this thesis or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to Universiti Utara Malaysia for any scholarly use that may be made of any material from my thesis.

Requests for permission to copy or to make other use of materials in this thesis, in whole or in part, should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business

Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman

ABSTRACT

Financial inclusion is pivotal in fostering economic development, particularly in low and lower-middle-income countries. The objective of this study is to analyze the relationship between remittance, human capital and governance quality in enhancing financial reachability through financial inclusion across 93 countries. Financial inclusion in the country is calculated using the financial inclusion index (FII), which is constructed using Principal Component Analysis (PCA) by integrating penetration, accessibility and usability dimensions. Utilizing the Dynamic Generalized Method of Moments (GMM) approach, the study examines how remittance inflows and human capital, moderated by governance quality, influence financial inclusion. The findings reveal a nonlinear relationship between remittances and financial inclusion. Initially, remittances negatively affect financial inclusion. However, this relationship transitions positively within robust governance frameworks. The threshold effect is most noticeable in low and lower-middle-income countries, where governance reforms help overcome infrastructural and regulatory constraints. Conversely, in upper-middle-income economies, high transfer costs and compliance burdens moderate the benefits of large inflows. Financial inclusion shows a strong positive relationship with human capital, which is significantly improved by enhanced quality of governance. Investment in education and financial literacy equips individuals to utilize financial services effectively, thereby expanding overall financial accessibility. The study recommends policies to strengthen governance frameworks to foster trust and efficiency in financial systems. Regulatory simplification can enhance remittance inflows, and public-private partnerships are crucial for effective implementation. Additionally, targeted public investments in rural banking infrastructure, digital payment systems, and comprehensive financial literacy programs are essential. These interventions strategically leverage remittance inflows, driving sustainable economic growth and improving financial inclusion outcomes in low- and middle-income countries.

Keywords: Financial reachability, Financial inclusion, Remittance, Human capital, Governance.

ABSTRAK

Rangkuman kewangan merupakan elemen penting dalam merangsang pembangunan ekonomi, khususnya di negara berpendapatan rendah dan sederhana rendah. Kajian ini bertujuan untuk menganalisis hubungan antara kiriman wang, modal insan dan kualiti tadbir urus dalam memperkukuh capaian kewangan melalui peningkatan tahap rangkuman kewangan merentas 93 buah negara. Tahap rangkuman kewangan diukur menggunakan Indeks Rangkuman Kewangan (IIK), yang dibangunkan melalui Analisis Komponen Utama (PCA) dengan mengambil kira tiga dimensi utama: penembusan, kebolehcapaian dan kegunaan. Dengan menggunakan Kaedah Dinamik Umum Momen (GMM), kajian ini meneliti bagaimana aliran masuk kiriman wang dan modal insan, yang dimoderasikan oleh kualiti tadbir urus, mempengaruhi rangkuman kewangan. Dapatan kajian menunjukkan bahawa wujudnya hubungan tidak linear antara kiriman wang dan rangkuman kewangan. Pada peringkat awal, kiriman wang memberi kesan negatif terhadap rangkuman kewangan. Namun, hubungan ini berubah menjadi positif dalam persekitaran tadbir urus yang kukuh. Kesan ambang paling ketara diperhatikan di negara berpendapatan rendah dan sederhana rendah, di mana pembaharuan tadbir urus membantu mengatasi kekangan infrastruktur dan peraturan. Sebaliknya, di negara berpendapatan sederhana tinggi, kos pemindahan yang tinggi serta beban pematuhan mengekang manfaat daripada aliran masuk yang besar. Rangkuman kewangan menunjukkan hubungan positif yang kukuh dengan modal insan, yang diperkukuh secara signifikan melalui kualiti tadbir urus yang lebih baik. Pelaburan dalam pendidikan dan literasi kewangan membekalkan individu dengan kemahiran untuk menggunakan perkhidmatan kewangan secara berkesan, sekaligus memperluaskan capaian kewangan secara keseluruhan. Kajian ini mencadangkan dasar untuk memperkukuh rangka kerja tadbir urus bagi memupuk kepercayaan dan kecekapan dalam sistem kewangan. Penyederhanaan peraturan dapat meningkatkan aliran kiriman wang, manakala kerjasama antara sektor awam dan swasta amat penting untuk pelaksanaan yang berkesan. Selain itu, pelaburan awam terarah dalam infrastruktur perbankan luar bandar, sistem pembayaran digital, dan literasi kewangan penting bagi memanfaatkan kiriman wang, memacu pertumbuhan ekonomi mampan dan mempertingkatkan rangkuman kewangan di negara berpendapatan rendah dan sederhana.

Kata Kunci: Capaian kewangan, Rangkuman kewangan, Kiriman wang, Modal insan, Tadbir urus.

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious, the Most Merciful, to whom I owe my deepest gratitude for His countless blessings and guidance.

First and foremost, I express my heartfelt appreciation to my principal supervisor, Dr. Mohammad Helmi bin Hidthiir, for his exceptional mentorship, profound insights, and steadfast support. Dr. Helmi's unwavering commitment to excellence, coupled with his patience and encouragement, provided me with the confidence to navigate challenges and achieve this milestone. His ability to inspire, both as a mentor and as a researcher, has left an indelible impact on my academic journey, and I am deeply grateful for the invaluable opportunities for growth and learning that he has extended to me. I am also deeply grateful to my co-supervisor, Dr. Tan Bee Wah, for her expert advice, vast academic knowledge, and invaluable guidance, which greatly enriched this work.

I pay a heartfelt tribute to my late father, Muhammad Aslam Khan, who left this world before I began my PhD. His values, wisdom, and belief in education continue to inspire me, and I dedicate this achievement to his memory. I also express my deepest gratitude to my mother, Mrs. Nafeesa Begum, for her boundless love, encouragement, and prayers, which have been a source of strength throughout this journey.

My deepest thanks go to my wife, whose understanding, patience, and support have been invaluable. Without her love, endless prayers, and encouragement, I could not have undertaken this journey or completed my PhD.

I am also grateful to my brothers, Abid Aslam and Hammad Aslam, and my sisters, whose unwavering love and support have always motivated me.

Lastly, I wish to thank my friends, Dr. Zaki Ahmad and Dr. Hafeez, for their encouragement, stimulating debates, and constant support, which enriched my academic experience. To all who supported me in this journey, I offer my deepest gratitude.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ATM	Automated Teller Machine
ECO	Economic
EFInA	Enhancing Financial Innovation and Access
FAS	Financial Access Survey
FDI	Foreign Direct Investment
FI	Financial Inclusion
FII	Financial Inclusion Index
FE	Financial Exclusion
FA	Financial Accessibility
FR	Financial Reachability
GDP	Gross Domestic Product
GMM	Generalized Method of Moments
GOV	Governance
GOVEXP	Government Expense
HC	Human Capital
HDI	Human Development Index
IMF	International Monetary Fund
LIC	Low-Income Countries
LMC	Lower Middle-Income Countries
UMC	Upper Middle-Income Countries
UNDP	United Nations Development Program
PCA	Principal Component Analysis
REM	Remittance
SDG	Sustainable Development Goals
TO	Trade Openness
WDI	World Development Indicator
DA	Deposit Accounts
DC	Debit Cards
CC	Credit Cards
MRA	Mobile Registered Agents
BB	Bank Branches
MT	Mobile Transactions
DP	Digital Payments
PC	Private Credits
BORR	Borrowings
BL	Bank Lending
BSP	Bangko Sentral ng Pilipinas
SME	Small and Medium Enterprise

LIST OF APPENDICES

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Financial Inclusion (FI) has gained increased focus from both policymakers and scholars in the past two decades. This study investigates the effects of remittance, governance, and human capital (HC) on Financial Inclusion (FI), using panel data from 93 countries across various income levels, including lower-income, lower-middle-income, and upper-middle-income countries, spanning from 2011 to 2021. This chapter is organized into eight sections: Section 1.2 outlines the background of this study; Section 1.3 presents the problem statement; Sections 1.4 and 1.5 explain the research question and objectives; Section 1.6 discusses the significance of the Research; Section 1.8 highlights the scope of the study; and the final section outlines the structure of the entire study.

1.2 Background of the Study

1.2.1 Financial Inclusion

Financial inclusion (FI) significantly varies across countries, being lower in low-income and lower-middle-income countries and higher in upper-middle-income and high-income countries. Measuring and improving financial reachability, particularly in developing regions, remains a critical challenge due to multiple barriers limiting access and utilization. Recently, financial inclusion has been recognized as a powerful enabler of the Sustainable Development Goals (SDGs). Most of the key SDGs, including those aimed at eliminating poverty and promoting economic growth, explicitly list advancing financial inclusion as one of their targets. This global emphasis comes from FI's potential to create opportunities

REFERENCES

Ababio, J., Attah-Botchwey, E., Osei-Assibey, E., & Barnor, C. (2020). Financial Inclusion and human development in frontier countries. *International Journal of Finance & Economics*, 26(1), 42-59. https://doi.org/10.1002/ijfe.1775

Abdelghaffar, R. A., Emam, H. A., & Samak, N. A. (2023). Financial inclusion and human development: is there a nexus?. *Journal of Humanities and Applied Social Sciences*, *5*(3), 163-177.

Abdih, Y., Chami, R., Dagher, J., & Montiel, P. (2012). Remittances and institutions: Are remittances a curse? *World Development,* 40(4), 657–666. https://doi.org/10.1016/j.worlddev.2011.09.014

Adams Jr, R. H., & Cuecuecha, A. (2010). Remittances, Household Expenditure and Investment in Guatemala. World Development, 38(11), 1626-1641.

Adams-Kane, J., & Lim, J. J. (2014). Institutional quality mediates the effect of human capital on economic performance: The World Bank.

Adams-Kane, J., & Lim, J. J. (2016). Institutional quality mediates the effect of human capital on economic performance (Vol. 20): Review of Development Economics.

Adegbite, O. O., & Machethe, C. L. (2020). Bridging the financial inclusion gender gap in smallholder agriculture in Nigeria: An untapped potential for sustainable development. *World Development, 127*, 104755.

Adeseye, Adenike. "Migrant remittance and household expenditure pattern in Nigeria." *Open Journal of Political Science* 11, no. 1 (2020): 73-98.

Aga, G. A., & Martinez Peria, M. S. (2020). Banking sector stability and financial inclusion: The African perspective. *World Bank Research Observer*, 35(2), 171-198.

Agarwal, R., & Howowitz, A. W. (2002). Are international remittances altruism or insurance? Evidence from Guyana using multiple-migrant households. *World Development, 30*(11), 2033-2044.

Aggarwal, R., Demirgüç-Kunt, A., & Martinez Peria, M. S. (2011). Do remittances promote financial development? *Journal of Development Economics*, 96(2), 255-264.

Aghion, P., Howitt, P., & Garcia-Penalosa, C. (2019). *Endogenous Growth Theory*. MIT Press. https://doi.org/10.7551/mitpress/9780262011662.001.0001

Ahad, M., & Imran, Z. A. (2023). Does governance quality matter for the development of financial institutions in Pakistan?. *Journal of Economic and Administrative Sciences*, *39*(2), 400-425.

Ahamed, M. M., & Mallick, S. (2019). Is Financial Inclusion Good for Bank Stability? International Evidence. *Journal of Economic Behavior & Organization*, 157, 403-427. doi:10.1016/j.jebo.2018.10.023

Ahmad, A. H., Green, C., & Jiang, F. (2020). Mobile money, financial inclusion and development: A review with reference to African experience. *Journal of Economic Surveys*, 34(4), 753-792. https://doi.org/10.1111/joes.12372

Ahsan, H., & Haque, M. E. (2017). Threshold effects of human capital: Schooling and economic growth. *Economics Letters,* 156, 48–52. https://doi.org/10.1016/j.econlet.2017.04.014

Ajefu, J. B., & Ogebe, J. O. (2019). Migrant remittances and financial inclusion among households in Nigeria. *Oxford Development Studies, 47*(3), 319-335.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2004). FDI and economic growth: The role of local financial markets. *Journal of International Economics*, 64(1), 89-112.

Alhassan, A., Li, L., Reddy, K., & Duppati, G. (2019). The relationship between political instability and financial inclusion: evidence from middle east and north africa. *International Journal of Finance &Amp; Economics*, 26(1), 353-374. https://doi.org/10.1002/ijfe.1793

Ali, A., & Sajid, A. (2020). Towards Inclusive Growth: Financial Sector Dynamics and Poverty Reduction in Pakistan. *Journal of Business and Economic Options*, *3*(4), 129-140.

Ali, M., Devi, A., & Bustomi, H. (2020). Determinants of islamic financial exclusion in indonesia. *Journal of Islamic Monetary Economics and Finance*, 6(2). https://doi.org/10.21098/jimf.v6i2.1093

Alinsunurin, J. (2015). International Orientation and Technological Diffusion Among SMEs in ASEAN. *Advanced Science Letters*, *21*(6), 1695-1699.

Allen, F., Carletti, E., Cull, R., Qian, J., & Senbet, L. (2014). Improving access to banking: Evidence from Kenya. *Journal of Banking & Finance,* 37(1), 28-41.

Allen, F., Demirgüç-Kunt, A., Klapper, L., & Martinez Peria, M. S. (2016). The foundations of financial inclusion: Understanding ownership and use of formal accounts. *Journal of Financial Intermediation*, 27, 1-30. doi:10.1016/j.jfi.2015.12.003

Allen, F., Demirgüç-Kunt, A., Klapper, L., & Pería, M. S. M. (2016). The foundations of financial inclusion: understanding ownership and use of formal accounts. *Journal of Financial Intermediation*, 27, 1-30. https://doi.org/10.1016/j.jfi.2015.12.003

Allen, J., Cars, G., & Madanipour, A. (2012). *Social exclusion in European cities: Processes, experiences and responses*. Routledge.

Alonso, S. L. N., Jorge-Vazquez, J., Arias, L. G., & del Nogal, N. M. (2024). What factors are limiting financial inclusion and development in Peru? Empirical evidence. *Economies*, *12*(4), 93.

Amagir, A., Groot, W., Maassen van den Brink, H., & Wilschut, A. (2018). A review of financial-literacy education programs for children and adolescents. In Citizenship, Social and Economic Education (Vol. 17, Issue 1, pp. 56–80). *SAGE Publications Inc*. https://doi.org/10.1177/2047173417719555

Ambrosius, C., Cuecuecha, A. (2016). Remittances and the Use of Formal and Informal Financial Services.*World Development,* 77, 80–98. https://doi.org/10.1016/j.worlddev.2015.08.010

Amidžić, G., Massara, A., & Mialou, A. (2019). Assessing countries' financial inclusion standing—A new composite index. *Journal of Banking & Finance*, 105, 24-35.

Anakpo, G., Xhate, Z., & Mishi, S. (2023). The policies, practices, and challenges of digital financial inclusion for sustainable development: the case of the developing economy. *FinTech*, 2(2), 327-343. https://doi.org/10.3390/fintech2020019

Anarfo, E. B., & Abor, J. Y. (2020). Financial regulation and financial inclusion in Sub Saharan Africa: Does financial stability play a moderating role? *Research in International Business and Finance, 51*, 101070.

Anarfo, E., Amewu, G., & Dzeha, G. (2020). FI and migrant remittances in sub-saharan africa: A panel var approach. *International Journal of Social Economics*, 47(7), 809-829. https://doi.org/10.1108/ijse-10-2019-0612

Anderson, T. W., & Hsiao, C. (1981). Estimation of dynamic models with error components. *Journal of the American statistical Association*, *76*(375), 598-606.

Anderu, K., Mbonigaba, J., & Akinola, G. (2023). A comparative analysis of mediating effects of governance on HC skill, infrastructure and industrial sector growth: evidence from Ghana. https://doi.org/10.21203/rs.3.rs-2486663/v1

Andrianaivo, M., & Kpodar, K. (2011). ICT, financial inclusion, and growth: Evidence from African countries.

Andrianaivo, M., & Kpodar, K. (2012). ICT, financial inclusion, and growth: Evidence from African countries. *IMF Working Paper*, WP/11/73.

Anusha, N., & Mohanty, A. (2024). Determinants Of Financial Literacy: A Structural Equation Modelling Approach. *Library Progress International*, *44*(3), 23550-23557.

Anwar, S., & Nguyen, L. P. (2011). Foreign direct investment and economic growth in Vietnam. *Asia Pacific Business Review*, 17(2), 183-202. https://doi.org/10.1080/13602381003755786

Anwar, S., & Sun, S. (2011). Financial development, foreign investment and economic growth in Malaysia. *Journal of Asian Economics*, 22(4), 335-342.

Anzoategui, D., Demirgüç-Kunt, A., & Martínez Pería, M. S. (2014). Remittances and Financial Inclusion: Evidence from El Salvador. *World Development*, 54, 338-349. doi:10.1016/j.worlddev.2013.10.006

Anzoategui, D., Demirgüç-Kunt, A., & Martínez Pería, M. S. (2014). Remittances and Financial Inclusion: Evidence from El Salvador. *World Development*, 54, 338-349. doi:10.1016/j.worlddev.2013.10.006

Anzoategui, D., Demirgüç-Kunt, A., & Martínez Pería, M. S. (2014). Remittances and Financial Inclusion: Evidence from El Salvador. *World Development*, 54, 338-349. doi:10.1016/j.worlddev.2013.10.006

Anzoategui, D., Demirgüç-Kunt, A., & Pería, M. S. M. (2014). Remittances and financial inclusion: evidence from el salvador. *World Development,* 54, 338-349. https://doi.org/10.1016/j.worlddev.2013.10.006

Aracil, E., Gomez-Bengoechea, G., & Moreno-de-Tejada, O. (2022). Institutional quality and the financial inclusion-poverty alleviation link: Empirical evidence across countries. *Borsa Istanbul Review*, *22*(1), 179-188.

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The review of economic studies*, *58*(2), 277-297.

Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of econometrics*, *68*(1), 29-51.

Arora, R. U. (2012). Financial inclusion and human capital in developing Asia: The Australian connection. *Third World Quarterly*, *33*(1), 177-197.

Arthur, E., Musau, S., & Wanjohi, F. (2020). Diaspora remittances and FI in Kenya. *European Journal of Business Management and Research,* 5(2). https://doi.org/10.24018/ejbmr.2020.5.2.289

Ashraf, B. N. (2018). Do trade and financial openness matter for financial development? bank-level evidence from emerging market economies. *Research in International Business and Finance*, 44, 434-458. https://doi.org/10.1016/j.ribaf.2017.07.115

Asitik, A. (2023). Drivers of rural entrepreneurship in northern ghana: a community capitals framework approach. *Journal of Entrepreneurship and Innovation in Emerging Economies,* 9(2), 270-287. https://doi.org/10.1177/23939575231174794

Asongu, S. A., & Odhiambo, N. M. (2021). Finance, governance and inclusive education in Sub-Saharan Africa. *Social Responsibility Journal*, *17*(8), 1044-1061.

Asteriou, D., & Hall, S. G. (2007). Applied Econometrics: a modern approach, revised edition. *Hampshire: Palgrave Macmillan*, *46*(2), 117-155.

Atakli, B. & Agbenyo, W. (2020). Nexus between FI, gender and agriculture productivity in Ghana. *Theoretical Economics Letters,* 10(03), 545-562. https://doi.org/10.4236/tel.2020.103035

Avom, D., Bangaké, C., & Ndoya, H. (2023). Do financial innovations improve financial inclusion? Evidence from mobile money adoption in Africa. *Technological Forecasting and Social Change*, *190*, 122451.

Azam, M., Haseeb, M., & Samsudin, S. (2016). The impact of foreign remittances on poverty alleviation:Global evidence. *Economics & Sociology*, 9(1), 264-281. https://doi.org/10.14254/2071-789x.2016/9-1/18

Azimi, M. N. (2022). New insights into the impact of financial inclusion on economic growth: A global perspective. *Plos one*, *17*(11), e0277730.

Azizah, A., Saragi, N., & Tsa, Y. (2021). The effect of sharia FI on Indonesian economic growth. *Dinamika Ekonomi*, 12(2), 150-159. https://doi.org/10.29313/de.v12i2.7798

Azizi, S. (2018). The impacts of workers' remittances on human capital and labor supply in developing countries. *Economic Modelling*, 75, 377-396. https://doi.org/10.1016/j.econmod.2018.07.009

Azizi, S. (2019a). Why do migrants remit? *The World Economy*, 42(2), 429-452. https://doi.org/10.1111/twec.12716

Azizi, S. (2019b). The impacts of workers' remittances on poverty and inequality in developing countries. *Empirical Economics*, 58(5), 2479-2501. https://doi.org/10.1007/s00181-019-01764-8

Azizi, S. (2020). Impacts of remittances on financial development. *Journal of Economic Studies*, 47(3), 467-477. https://doi.org/10.1108/jes-01-2019-0045

Baffour, P. T., Rahaman, W. A., & Mohammed, I. (2020). Impact of mobile money access on internal remittances, consumption expenditure and household welfare in Ghana. *Journal of Economic and Administrative Sciences,* 37(3), 337-354. https://doi.org/10.1108/jeas-04-2020-0045

Bahadir, B., Chatterjee, S.,Lebesmuehlbacher, T. (2018). The macroeconomic consequences of remittances. *Journal of International Economics,*111, 214–232. https://doi.org/10.1016/j.jinteco.2018.01.010

Baltagi, B. H. (2005). Econometric analysis of panel data 3rd Edition *England John Wiley and Sons,* 81-97.

Baltagi, B. H., & Pinnoi, N. (1995). Public capital stock and state productivity growth: Further evidence from an error components model. *Empirical Economics*, *20*, 351-359.

Banna, H., Dwivedi, M. M., & Hossain, A. (2021). Financial inclusion, governance, and income inequality: Evidence from emerging economies. *Journal of Policy Modeling*, 43(1), 183-198. https://doi.org/10.1016/j.jpolmod.2020.11.007

Barro, R. J. (1991). Economic growth in a cross section of countries. *The Quarterly Journal of Economics*, 106(2), 407-443.

Barro, R. J., & Redlick, C. J. (2011). Macroeconomic Effects from Government Purchases and Taxes. *The Quarterly Journal of Economics*, 126(1), 51-102.

Bashir, S., Nawaz, A., & Ayesha, S. N. (2022). Financial inclusion profile: socio-economic determinants, barriers, and the reasons for saving and borrowing in pakistan. *International Journal of Asian Social Science*, 12(10), 449-462. https://doi.org/10.55493/5007.v12i10.4622

Beck, T., -Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. *Journal of Economic Growth*, 12(1), 27–49. https://doi.org/10.1007/s10887-007-9010-6

Beck, T., & Martinez Peria, M. S. (2011). What explains the cost of remittances? An examination across 119 country corridors. *World Bank Economic Review*, 25(1), 105-131.

Beck, T., & Rojas-Suarez, L. (2022). Financial inclusion for inclusive growth: A roadmap for Latin America and the Caribbean. *Inter-American Development Bank*. https://doi.org/10.18235/0004414

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2009). Financial institutions and markets across countries and over time-data and analysis. *World Bank policy research working paper*, (4943).

Beck, T., Levine, R., & Loayza, N. (2000). Finance and the sources of growth. *Journal of Financial Economics*, 58(1-2), 261-300. https://doi.org/10.1016/s0304-405x(00)00072-6

Berdiev, A. N., Kim, Y., & Chang, C. P. (2013). Remittances and corruption. *Economics Letters,* 118(1), 182-185.

Bilan, Y. and Virak, K. (2022). The role of formal and informal remittances as the determinants of formal and informal finan-cial services. Equilibrium. *Quarterly Journal of Economics and Economic Policy*, 17(3), 727-746. https://doi.org/10.24136/eq.2022.025

Bissinger, J. (2012). Foreign investment in myanmar: a resource boom but a development bust?. *Contemporary Southeast Asia*, 34(1), 23. https://doi.org/10.1355/cs34-1b

Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of econometrics*, *87*(1), 115-143.

Breitung, J. (1997). Testing for unit roots in panel data using a GMM approach. *Statistical Papers,* 38(3), 253–269. https://doi.org/10.1007/BF02925268

Bro, R., & Smilde, A. K. (2014). Principal component analysis. *Analytical methods*, 6(9), 2812-2831.

Brown, R. P., Carmignani, F., & Fayad, G. (2013). Migrants' remittances and financial development: Macro- and micro-level evidence of a perverse relationship. *The World Economy,* 36(5), 636-660. https://doi.org/10.1111/twec.12016

Bruhn, M., & Love, I. (2014). The real impact of improved access to finance: Evidence from Mexico. *Journal of Finance*, 69(3), 1347-1376. https://doi.org/10.1111/jofi.12091

Cámara, N., & Tuesta, D. (2014). Measuring financial inclusion: A muldimensional index. *BBVA Research Paper*, (14/26).

Caplan, M. A., Birkenmaier, J., & Bae, J. (2021). Financial exclusion in OECD countries: A scoping review. *International Journal of Social Welfare*, *30*(1), 58-71.

Caplan, M., Birkenmaier, J., & Bae, J. (2020). Financial exclusion in oecd countries: a scoping review*. *International Journal of Social Welfare*, 30(1), 58-71. https://doi.org/10.1111/ijsw.12430

Carpena, F., Cole, S., Shapiro, J., & Zia, B. (2019). The ABCs of financial education: Experimental evidence on attitudes, behavior, and cognitive biases. *Management Science, 65*(1), 346-369.

Chami, R., & Fullenkamp, C. (2013). Remittances and financial inclusion. *Journal of Development Economics*, *103*, 214-222. https://doi.org/10.1016/j.jdeveco.2012.11.004

Chami, R., Fullenkamp, C., & Jahjah, S. (2003). Are Immigrant Remittance Flows a Source of Capital for Development? *IMF Working Paper No. 03/189. International Monetary Fund.*

Chami, R., Fullenkamp, C., & Jahjah, S. (2005). Are immigrant remittance flows a source of capital for development? *IMF Staff papers,* 52(1), 55-81.

Chan, S. G., Ramly, Z., & Karim, M. Z. A. (2017). Government spending efficiency on economic growth: Roles of value-added tax. *Global Economic Review*, *46*(2), 162-188.

Chehade, N. (2017). To the future and back: financial inclusion in the Arab world. *Development Finance Agenda (DEFA)*, *3*(3), 22-23.

Chen, Z., Zhu, H., Zhao, W., Chen, B., & Cai, Y. (2022). Dynamic nonlinear connectedness between the FI, economic growth, and China's poverty alleviation: Evidence from a panel var analysis. *Complexity*, 2022, 1-24. https://doi.org/10.1155/2022/9584126

Chikalipah, S. (2017). What determines financial inclusion in sub-saharan africa?. African *Journal of Economic and Management Studies*, 8(1), 8-18. https://doi.org/10.1108/ajems-01-2016-0007

Chinn, M. D., & Ito, H. (2006). What matters for financial development? Capital controls, institutions, and interactions. *Journal of Development Economics*, 81(1), 163-192.

Chinoda, T. and Kapingura, F. (2023). Digital financial inclusion and economic growth in sub-saharan africa: the role of institutions and governance. *African Journal of Economic and Management Studies*, 15(1), 15-30. https://doi.org/10.1108/ajems-09-2022-0372

Chinoda, T. and Kwenda, F. (2019). The impact of institutional quality and governance on financial inclusion in africa: a two-step system generalised method of moments approach. *Journal of Economic and Financial Sciences*, 12(1). https://doi.org/10.4102/jef.v12i1.441

Choudhary, H., & Jain, H. (2023). Addressing Financial Exclusion through Financial Literacy training programs: a Systematic Literature Review. *Empirical Research in Vocational Education and Training,* 15(1), 8. https://doi.org/10.1186/s40461-023-00147-9

Chowdhury, M., & Maung, M. (2021). Remittances, Financial Development, and Governance: Evidence from Developing Countries. *Emerging Markets Finance and Trade*, 57(5), 1269-1286. doi:10.1080/1540496X.2019.1697882

Chuc, A. T., Li, W., Phi, N. T. M., Le, Q. T., Yoshino, N., & Taghizadeh-Hesary, F. (2022). The necessity of FI for enhancing the economic impacts of remittances. *Borsa Istanbul Review*, 22(1), 47–56. https://doi.org/10.1016/j.bir.2020.12.007

Cismas, L. M., Danuletiu, D. C., & Cismas, S. (2020). Do remittances promote economic growth? Evidence from a dynamic panel analysis. *Sustainability*, *12*(7), 2965. https://doi.org/10.3390/su12072965

Claessens, S., & Laeven, L. (2003). Financial development, property rights, and growth. *The Journal of Finance*, 58(6), 2401-2436. https://doi.org/10.1046/j.1540-6261.2003.00610.x

Cociug, V. & Turcan-Munteanu, N. (2021). Low FI as an educational gaps result: the republic of Moldova case. *SHS Web of Conferences*, 97, 01027. https://doi.org/10.1051/shsconf/20219701027

Collard, S., Kempson, E., & Whyley, C. (2001). *Tackling financial exclusion*. Policy.

Cooray, A. (2018). Do Remittances Disrupt Financial Development? *Journal of International Financial Markets, Institutions and Money*, 56, 69-87. doi:10.1016/j.intfin.2018.02.008

Cooray, A., & Schneider, F. (2016). Does Remittance Promote Financial Development? Evidence from South Asia. *Review of Development Economics*, 20(2), 454-474. doi:10.1111/rode.12230

Coutinho, K., Khairwal, N., & Wongthongtham, P. (2023). Towards a truly decentralized blockchain framework for remittance. *Journal of Risk and Financial Management*, 16(4), 240. https://doi.org/10.3390/jrfm16040240

Cox-Edwards, A., & Rodríguez-Oreggia, E. (2009). Remittances and labor force participation in Mexico: an analysis using propensity score matching. *World Development*, *37*(5), 1004-1014.

Creswell, J. W. (2014). A concise introduction to mixed methods research. *SAGE publications.*

Cruijsen, C. v. d., Haan, J. d., & Roerink, R. (2019). Financial knowledge and trust in financial institutions. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3530886

Cull, R., & Effron, L. (2008). World Bank lending and financial sector development. *The World Bank Economic Review*, 22(2), 315-343.

Cull, R., Demirgüç-Kunt, A., & Morduch, J. (2014). Banking the world: Empirical foundations of financial inclusion. *MIT Press*. https://doi.org/10.7551/mitpress/9780262028189.001.0001

Dabla-Norris, E., Ji, Y., Townsend, R. M., & Unsal, D. F. (2020). Distinguishing constraints on financial inclusion and their impact on GDP, TFP, and the distribution of income. *Journal of monetary economics*.

Dabla-Norris, E., Ji, Y., Townsend, R., & Unsal, D. F. (2021). Financial inclusion: A macroeconomic perspective. *IMF Economic Review*, 69(1), 1-37. https://doi.org/10.1057/s41308-021-00125-7

Dar, A. & Ahmed, F. (2020). FI determinants and impediments in India: Insights from the global FI index. *Journal of Financial Economic Policy,* 13(3), 391-408. https://doi.org/10.1108/jfep-11-2019-0227

Dar, A. B., & Ahmed, F. (2021). Financial inclusion determinants and impediments in India: insights from the global financial inclusion index. *Journal of Financial Economic Policy*, *13*(3), 391-408.

Dash, R. K. (2020). Impact of remittances on domestic investment: A panel study of six south Asian countries. *South Asia Economic Journal,* 21(1), 7-30. https://doi.org/10.1177/1391561420903199

Demirgüç-Kunt, A., & Singer, D. (2017). Financial inclusion and inclusive growth: A review of recent empirical evidence. *World bank policy research working paper*, (8040).

Demirgüç-Kunt, A., Klapper, L., & Singer, D. (2017). Financial inclusion and inclusive growth: A review of recent empirical evidence. *World Bank Research Observer*, 32(2), 221-250. https://doi.org/10.1093/wbro/lkx002

Demirgüç-Kunt, A., Klapper, L., & Singer, D. (2020). Financial Inclusion and Inclusive Growth: A Review of Recent Empirical Evidence. *World Bank Research Observer*, 35(2), 147–173. https://doi.org/10.1093/wbro/lkaa003

Demirguc-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2018). The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution. *World Bank Publications.*

Desello, J. M. U., & Agner, M. G. R. (2023). Financial Inclusion and the Role of Financial Literacy in the Philippines. *International Journal of Economics and Finance. https://doi. org/10.5539/ijef. v15n6p27*.

Deshpande, Rani and Jasmina Glisovic-Mezeries. 2007. "The true cost of deposit mobilization." *CGAP draft report.*

Duan, C., Zhou, Y., Yuan-qing, C., Wei, G., Chun-zhen, Z., & Jian, A. (2022). Investigate the impact of human capital, economic freedom and governance performance on the economic growth of the BRICS. *Journal of Enterprise Information Management*, 35(4/5), 1323-1347. https://doi.org/10.1108/jeim-04-2021-0179

Dupas, P., Karlan, D., Robinson, J., & Ubfal, D. (2018). Banking the unbanked? Evidence from three countries. *American Economic Journal: Applied Economics*, 10(2), 257–297. https://doi.org/10.1257/app.20160597

Dwivedi, R., Alrasheedi, M., Dwivedi, P., & Starešinić, B. (2021). Leveraging financial inclusion through technology-enabled services innovation. *International Journal of E-Services and Mobile Applications,* 14(1), 1-13. https://doi.org/10.4018/ijesma.289633

Eggoh, J., & Bangaké, C. (2021). Remittances and Financial Inclusion: Does financial development matter. *Economics Bulletin*, 41(2), 374-386.

Eldomiaty, T., Hammam, R., & Bakry, R. (2020). Institutional determinants of Financial Inclusion: evidence from world economies. *International Journal of Development Issues*, 19(2), 217-228. https://doi.org/10.1108/ijdi-08-2019-0147

Elouardighi, I. and Oubejja, K. (2023). Can digital financial inclusion promote women's labor force participation? microlevel evidence from africa. *International Journal of Financial Studies*, 11(3), 87. https://doi.org/10.3390/ijfs11030087

Emara, N., & el Said, A. (2021). Financial inclusion and economic growth: The role of governance in selected MENA countries. *International Review of Economics and Finance*, 75, 34–54. https://doi.org/10.1016/j.iref.2021.03.014

Emara, N., & Kasa, H. (2020). The Non-Linear Relationship between Financial Access and Domestic Savings.

Evans, D. K., & Kosec, K. (2020). Education and financial inclusion: Pathways and outcomes in developing countries. *World Bank Economic Review*, 34(3), 616-636. https://doi.org/10.1093/wber/lhz022

Ezzahid, E., & Elouaourti, Z. (2021). Financial inclusion, mobile banking, informal finance and financial exclusion: micro-level evidence from Morocco. *International Journal of Social Economics*, *48*(7), 1060-1086.

Fanta, A. B. and Mutsonziwa, K. (2021). Financial literacy as a driver of financial inclusion in kenya and tanzania. *Journal of Risk and Financial Management*, 14(11), 561. https://doi.org/10.3390/jrfm14110561

Farrar, D. E., & Glauber, R. R. (1967). Multicollinearity in regression analysis: the problem revisited. *The Review of Economic and Statistics*, 92-107.

Finke, M. S., & Huston, S. J. (2014). Financial literacy and education. *Investor behavior: The psychology of financial planning and investing*, 63-82.

Freund, C., & Spatafora, N. (2008). Remittances, transaction costs, and informality. *Journal of Development Economics*, 86(2), 356-366.

Fromentin, V. (2018). Remittances and financial development in latin america and the caribbean countries: a dynamic approach. *Review of Development Economics*, 22(2), 808-826. https://doi.org/10.1111/rode.12368

Gatsi, J. (2020). Effects of international and internal remittances on Financial Inclusion in Ghana. *Financial Markets Institutions and Risks,* 4(3), 109-123. https://doi.org/10.21272/fmir.4(3).109-123.2020

Gheeraert, L., Mata, R. S., & Traca, D. (2010). Remittances and domestic investment in developing countries: an analysis of the role of financial sector development. *CEB WP*, *10*, 013.

Ghosh, S., & Vinod, H. D. (2017). Financial inclusion, technology, and institutions: Do income inequalities matter? *Journal of Financial Economic Policy*, 9(1), 3-18.

Giuliano, P., Ruiz-Arranz, M. (2009). Remittances, financial development, and growth. *Journal of Development Economic,* 90(1), 144–152. https://doi.org/10.1016/j.jdeveco.2008.10.005

Goldsmith, R. W. (1969). Financial structure and development. *Yale University*.

Gourène, G. & Mendy, P. (2019). Financial Inclusion and economic growth in Asia: A multiscale heterogeneity panel causality approach. *Theoretical Economics Letters,* 09(03), 477-488. https://doi.org/10.4236/tel.2019.93033

Grohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve Financial Inclusion? Cross country evidence. *World Development,* 111, 84–96. https://doi.org/10.1016/j.worlddev.2018.06.020

Gross, E., & Ntim, R. (2014). Evaluating the Impact of Internal Remittances on Financial Inclusion: Evidence from Ugandan Household Data. *Mimeo. University of Bayreuth.*

Guiso, L., Sapienza, P., & Zingales, L. (2008a). Social capital as good culture. *Journal of the European Economic association*, 6(2-3), 295-320.

Guiso, L., Sapienza, P., & Zingales, L. (2008b). Trusting the stock market. *the Journal of Finance*, 63(6), 2557-2600.

Gujarati, D. N., & Porter, D. (2009). Basic Econometrics *Mc Graw-Hill International Edition.*

Gujarati, D. N., Bernier, B., & Bernier, B. (2004). *Econométrie,* 17-25. Brussels: De Boeck.

Gupta, S., Clements, B., & Tiongson, E. R. (2002). Public spending on health care and the poor. *World Bank Policy Research Working Paper*.

Gupta, S., Pattillo, C. A., & Wagh, S. (2009). Effect of remittances on poverty and financial development in sub-Saharan Africa. *World Development*, 37(1), 104-115.

H., W. T., Iriobe, G., Ayodele, T. D., OLASUPO, S. F., & Aladejebi, M. O. (2023). Do illiteracy and unemployment affect FI in the rural areas of developing countries?. *Investment Management and Financial Innovations*, 20(2), 89-101. https://doi.org/10.21511/imfi.20(2).2023.08

Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). Multivariate data analysis: A global perspective (7).

Harmadji, D. (2022). The role of government, financial literacy and inclusion on the financial peformance of msmes in malang city. *Jurnal Keuangan Dan Perbankan*, 26(3), 552-566. https://doi.org/10.26905/jkdp.v26i3.8115

Héron, E. L. & Yol, N. (2018). The macroeconomic effects of migrants' remittances in Moldova: a stock–flow consistent model. *European Journal of Economics and Economic Policies: Intervention,* 16(1), 31-54. https://doi.org/10.4337/ejeep.2018.00039

Holtz-Eakin, D., Newey, W., & Rosen, H. S. (1988). Estimating vector autoregressions with panel data. *Econometrica: Journal of the econometric society*, 1371-1395.

Honohan, P. (2008). Cross-country variation in household access to financial services. *Journal of Banking & Finance*, 32(11), 2493-2500.

Hsiao, C. (2007). Panel data analysis—advantages and challenges. *Test*, *16*(1), 1-22.

Hsiao, C. (2014). Analysis of panel data (No.54) *Cambridge university press*, 1-37.

Huang, W., Gu, X., Lin, L., Alharthi, M., & Usman, M. (2023). Do FI and income inequality matter for human capital? Evidence from sub-Saharan economies. *Borsa Istanbul Review*, 23(1), 22–33. https://doi.org/10.1016/j.bir.2022.09.002

Hussain, M., Yahya, F. & Waqas, M. Does strong governance stimulate the effect of economic freedom and financial literacy on financial inclusion? a cross-country evidence. *Futur Bus J* 7, 41 (2021). https://doi.org/10.1186/s43093-021-00090-9

Ibrahim, M. (2018). Interactive effects of human capital in finance–economic growth nexus in Sub-Saharan Africa. *Journal of Economic Studies*, *45*(6), 1192-1210.

Ibrahim, M., & Sare, Y. A. (2018). Determinants of financial development in Africa: How robust is the interactive effect of trade openness and human capital?. *Economic analysis and policy*, *60*, 18-26.

Ifa, K. & Yahdi, M. (2020). Trade openness and economic growth in indonesia. Wiga : *Jurnal Penelitian Ilmu Ekonomi,* 10(2), 163-170. https://doi.org/10.30741/wiga.v10i2.599

Ifediora, C., Offor, K. O., Eze, E. F., Takon, S. M., Ageme, A. E., Ibe, G. I., Onwumere, J. U. J. (2022). FI and its impact on economic growth: Empirical evidence from sub-Saharan Africa. *Cogent Economics and Finance*,10(1). https://doi.org/10.1080/23322039.2022.2060551

Iqbal, B. A., & Sami, S. (2017). Role of banks in financial inclusion in India. *Contaduría y administración*, *62*(2), 644-656.

Islam, M. M. (2022). Remittance inflows and economic development in saarc region. *International Journal of Economics, Business and Management Research*, 06(11), 231-239. https://doi.org/10.51505/ijebmr.2022.61118

Issabayev, M., H, S., Avsar, V., & Lee, C. (2020). Remittances, institutions and financial inclusion: new evidence of non-linearity. *Global Economy Journal*, 20(01). https://doi.org/10.1142/s2194565920500025

Issawi, Y. (2022). Investment In Human Capital In Promoting Economic Growth And The Importance Of Financial Inclusion In The Russian Economy: English. *Tamansiswa Management Journal International*, *5*(1), 66-74.

Ji, X., Wang, K., Xu, H., & Li, M. (2021). Has digital financial inclusion narrowed the urban-rural income gap: The role of entrepreneurship in China. *Sustainability*, *13*(15), 8292.

Jithin, P. (2022). Does foreign direct investments in financial services induce financial development? Lessons from emerging economies. *International Journal of Finance & Economics*, *27*(4), 4399-4411.

Jungo, J., Madaleno, M., & Botelho, A. (2023). Controlling corruption in African countries: innovation, FI and access to education as alternative measures. *International Journal of Social Economics,* 50(6), 766-786. https://doi.org/10.1108/ijse-08-2022-0520

Kadoya, Y., Khan, M. S. R., & Rabbani, N. (2017). Does financial literacy affect stock market participation?. *Available at SSRN 3056562*.

Kapingura, F. M. (2023). The impact of digital financial inclusion and bank competition on bank stability in Sub-Saharan Africa. *Economies*, 11(1), 15. https://doi.org/10.3390/economies11010015

Karim, N., Tariq, M., & Khan, M. A. (2024). Examining the moderated-mediation role of the financial sector and institutional quality in the relationship between remittances and economic growth in developing countries. *Journal of International Migration and Integration*, 1-38.

Karlan, D., & Morduch, J. (2010). Access to finance. In *Handbook of development economics* (Vol. 5, pp. 4703-4784). Elsevier.

Katrutsa, A., & Strijov, V. (2017). Comprehensive study of feature selection methods to solve multicollinearity problem according to evaluation criteria. *Expert Systems with Applications*, *76*, 1-11.

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2007). Growth and governance: A reply. *The Journal of Politics*, *69*(2), 555-562.

Kebede, J., Selvanathan, S., & Naranpanawa, A. (2021). Foreign bank presence, institutional quality, and financial inclusion: Evidence from Africa. *Economic Modelling*, *102*, 105572.

Keho, Y. (2017). The impact of trade openness on economic growth: the case of cote d'Ivoire. *Cogent Economics Finance,* 5(1), 1332820. https://doi.org/10.1080/23322039.2017.1332820

Khan, H., Khan, U., & Razzaq, S. (2019). The Impact of Government Spending on Financial Inclusion: Evidence from Developing Countries. *Journal of Economic Policy Reform*, 22(4), 321-336. doi:10.1080/17487870.2018.1509712

Khan, N., Zafar, M., Okunlola, A. F., Zoltan, Z., & Robert, M. (2022). Effects of Financial Inclusion on Economic Growth, Poverty, Sustainability, and Financial Efficiency: Evidence from the G20 Countries. *Sustainability (Switzerland)*, 14(19). https://doi.org/10.3390/su141912688

Kholdy, S., & Sohrabian, A. (2008). Foreign direct investment, financial markets, and political corruption. *Journal of Economic Studies*, 35(6), 486-500.

Kim, D. H., Lin, S., & Suen, Y. B. (2011). Interactions between financial development and trade openness. Scottish Journal of Political Economy, 58(4), 567-588. https://doi.org/10.1111/j.1467-9485.2011.00559.x

Kim, D. W., Yu, J. S., & Hassan, M. K. (2018). Financial inclusion and economic growth in OIC countries. *Research in International Business and Finance*, 43, 1-14.

King, R. G., & Levine, R. (1993). *Financial intermediation and economic development* (Vol. 15689). Cambridge: Cambridge University Press.

King, R. G., & Levine, R. (1993). Financial intermediation and economic development (Vol. 15689). *Cambridge: Cambridge University Press.*

Klapper, L., Lusardi, A. (2020). Financial literacy and financial resilience: Evidence from around the world. *Financial Management,* 49(3),589–614. https://doi.org/10.1111/fima.12283

Klus, S., Kozera-Kowalska, M., & Ostrowska, A. (2021). The phenomenon of financial exclusion in rural areas – case studies of the gołdapski county. *European Research Studies Journal*, XXIV(Issue 3B), 787-798. https://doi.org/10.35808/ersj/2501

König, J., & Ohr, R. (2013). Different Efforts in E uropean Economic Integration: Implications of the EU I ndex. *JCMS: Journal of Common Market Studies*, *51*(6), 1074-1090.

Koomson, I., Koomson, P., & Abdul-Mumuni, A. (2023). Trust in banks, financial inclusion and the mediating role of borrower discouragement. *International Review of Economics & Finance*, *88*, 1418-1431.

Koomson, I., Villano, R. A., & Hadley, D. (2020). Effect of FI on Poverty and Vulnerability to Poverty: Evidence Using a Multidimensional Measure of FI. *Social Indicators Research,* 149(2), 613–639. https://doi.org/10.1007/s11205-019-02263-0

Koomson, I., Villano, R. A., & Hadley, D. (2020). Intensifying financial inclusion through the provision of financial literacy training: a gendered perspective. *Applied Economics, 52*(4), 375-387.

Koskei, L. (2020). Interest rate ceilings and financial exclusion in kenya: evidence from commercial banks' sectoral credit distribution. *International Journal of Business, Economics and Management,* 7(5), 301-309. https://doi.org/10.18488/journal.62.2020.75.301.309

Kumar Vaid, Y., Singh, V., & Sethi, M. (2020). Determinants of successful financial inclusion in low-income rural population. *The Indian Economic Journal*, *68*(1), 82-100.

Kumar, B. (2021). Construction of household welfare index and welfare impact of international remittances in rural Bangladesh.. https://doi.org/10.20944/preprints202105.0551.v1

Kumar, N. (2013). Government spending and financial inclusion: The role of public infrastructure investment. *Journal of Development Economics,* 102, 234-245. https://doi.org/10.1016/j.jdeveco.2013.01.007

Kwenda, F., & Chinoda, T. (2019). The impact of institutional quality and governance on financial inclusion in Africa: A two-step system generalised method of moments approach. *Journal of Economic and Financial Sciences*, *12*(1), 1-9.

Law, S. (2009). Trade openness, capital flows and financial development in developing economies. *International Economic Journal,* 23(3), 409-426. https://doi.org/10.1080/10168730903268398

Law, S.-H., & Ibrahim, M. (2013). Social capital and financial market development. In A. R. In: Hooy CW, Rhee SW.G . (ed) (Ed.), *Emerging Markets and Financial Resilience* (pp. 11-37). London: Palgrave Macmillan.

Lensink, E. R., Van den Berg, M., & Juárez, R. S. (2014). The Impact of Remittances on Financial Inclusion in Veracruz, Mexico.

Levine, R. (2005). Finance and growth: Theory and evidence. In P. Aghion & S. N. Durlauf (Eds.), *Handbook of Economic Growth* (pp. 865-934). *Elsevier*.

Leyshon, A., & Thrift, N. (1995). Geographies of financial exclusion: financial abandonment in Britain and the United States. *Transactions of the Institute of British Geographers*, 312-341.

Li, J. J., Salinas, J. C., Ramírez, T., Hoyo, C., & Serrano, C. (2014). Do remittances foster financial inclusion in Mexico. *BBVA Research: Financial Inclusion Economic Watch*.

Liao, L., Du, M., Wang, B., & Yu, Y. (2019). The impact of educational investment on sustainable economic growth in guangdong, china: a cointegration and causality analysis. *Sustainability,* 11(3), 766. https://doi.org/10.3390/su11030766

Lontchi, C. B., Yang, B., & Su, Y. (2022). The mediating effect of financial literacy and the moderating role of social capital in the relationship between financial inclusion and sustainable development in Cameroon. *Sustainability*, *14*(22), 15093.

Lucas Jr, R. E. (1988). On the mechanics of economic development. *Journal of monetary economics*, *22*(1), 3-42.

Lusardi, A., & Mitchell, O. S. (2017). Financial literacy and financial inclusion. *NBER Working Paper No. 17101*.

Mabula, J. B., & Han, D. P. (2018). Financial literacy of SME managers' on access to finance and performance: The mediating role of financial service utilization. *International Journal of Advanced Computer Science and Applications*, *9*(9).

Maghfiroh, S. and Purwono, R. (2021). Determinants of financial development: impact of human capital in emerging markets countries. *Trikonomika,* 20(2), 97-104. https://doi.org/10.23969/trikonomika.v20i2.4047

Mahadeva, M. (2011). Poverty of access to financial services and its alleviation: some lessons to india from the united kingdom. *Journal of Asian Public Policy,* 4(2), 187-200. https://doi.org/10.1080/17516234.2011.595911

Mahmood-ur-Rahman(2022), 'Effect of financial literacy on usage of unconventional banking and non-banking financial services across countries', *Economics Letters,* Vol. 217, https://doi.org/10.1016/j.econlet.2022.110679

Maingi, J. (2017). The impact of government expenditure on economic growth in Kenya: 1963-2008. *Advances in Economics and Business,* 5(12), 635-662. https://doi.org/10.13189/aeb.2017.051201

Malakoutikhah, Z. (2020). Financial exclusion as a consequence of counter-terrorism financing. *Journal of Financial Crime*, 27(2), 663-682. https://doi.org/10.1108/jfc-09-2019-0121

Malik, A. H., bin Md Isa, A. H., bin Jais, M., Rehman, A. U., & Khan, M. A. (2022). Financial stability of Asian Nations: Governance quality and financial inclusion. *Borsa Istanbul Review*, *22*(2), 377-387.

Malik, A. H., bin Md Isa, A. H., bin Jais, M., Rehman, A. U., & Khan, M. A. (2022). Financial stability of Asian Nations: Governance quality and financial inclusion. *Borsa Istanbul Review*, *22*(2), 377-387.

Manta, A. (2019). Financial inclusion and gender barriers for rural women . *International Journal of Management*, 10(5). https://doi.org/10.34218/ijm.10.5.2019.006

Martínez Pería, M. S., & Singh, S. (2018). Financial inclusion: Global trends and insights. *World Bank*.

Mbu, S. & Nso, M. (2021). The impact of a health-run on remittances and Financial Inclusion. *European Scientific Journal Esj,* 17(23). https://doi.org/10.19044/esj.2021.v17n23p229

Menon, P. (2019). Financial inclusion, banking the unbanked: concepts, issues, and policies for india. *Journal of Public Affairs,* 19(2). https://doi.org/10.1002/pa.1911

Menyelim, C. M., Babajide, A. A., Omankhanlen, A. E., & Ehikioya, B. I. (2021). Financial inclusion, income inequality and sustainable economic growth in sub-Saharan African countries. *Sustainability,* 13(4), 1780.

Meyer, D., & Shera, A. (2017). The Impact of Remittances on Economic Growth: An Econometric Model. *EconomiA*, 18(2), 147-155. doi:10.1016/j.econ.2016.06.001

Mialou, A., Amidzic, G., & Massara, A. (2017). Assessing countries' financial inclusion standing—A new composite index. *Journal of Banking and Financial Economics*, (2 (8), 105-126.

Misati, R. N., Kamau, A., & Nassir, H. (2019). Do migrant remittances matter for financial development in kenya?. *Financial Innovation*, 5(1). https://doi.org/10.1186/s40854-019-0142-4

Mishra, S.K., 2007. A comparative study of various inclusive indices and the index constructed by the principal components analysis. Available at *SSRN 990831*.

Mlambo, C. and Kapingura, F. M. (2020). Remittances and economic development: evidence from sadc countries. *Eurasian Journal of Economics and Finance*, 8(4), 261-273. https://doi.org/10.15604/ejef.2020.08.04.006

Molu, F., Findik, N., & Dalci, M. (2014). Enhancing user experience in financial services. *International Journal of E-Services and Mobile Applications,* 6(2), 12-22. https://doi.org/10.4018/ijesma.2014040102

Moreno-García, E., García-Santillán, A., & Gutierrez, A. (2019). Financial literacy of telebachillerato students: A study of perception, usefulness and application of financial tools. *International Journal of Education and Practice*, 7(3), 168-183. https://doi.org/10.18488/journal.61.2019.73.168.183

Mouna, A., & Jarboui, A. (2022). Understanding the link between government cashless policy, digital financial services and socio-demographic characteristics in the MENA countries. *International Journal of Sociology and Social Policy*, *42*(5/6), 416-433.

Muhammad, H., Yahya, F., & Waqas, M. (2021). Does strong governance stimulate the effect of economic freedom and financial literacy on financial inclusion? a cross-country evidence. *Future Business Journal*, 7(1). https://doi.org/10.1186/s43093-021-00090-9

Muhammad, T., Ngah, B. b., & Obad, A. F. M. (2022). Financial exclusion in northern nigeria: a lesson from the developed countries. *AFEBI Islamic Finance and Economic Review,* 7(01), 45. https://doi.org/10.47312/aifer.v7i01.565

Mundaca, B. G. (2009). Remittances, financial market development, and economic growth: The case of Latin America and the Caribbean. *Review of Development Economics,* 13(2), 288–303. https://doi.org/10.1111/j.1467-9361.2008.00487.x

Murendo, C. and Mutsonziwa, K. (2016). Financial literacy and savings decisions by adult financial consumers in zimbabwe. *International Journal of Consumer Studies*, 41(1), 95-103. https://doi.org/10.1111/ijcs.12318

Musakwa, M. & Odhiambo, N. (2019). The impact of remittance inflows on poverty in Botswana: An ardl approach. *Journal of Economic Structures,* 8(1). https://doi.org/10.1186/s40008-019-0175-x

Musau, S., & Leonard, D. (2021). Governance and financial inclusion in sub-Saharan Africa: A comparative analysis. *African Journal of Economic and Management Studies*, 12(2), 272-293.

Mwania, P. M. (2018). Antecedents of technology adoption and financial inclusion among micro enterprises in Machakos County, Kenya (*Doctoral dissertation, KeMU*).

Naceur, S. B., Chami, R., & Trabelsi, M. A. (2020). Do remittances enhance financial inclusion in lmics and in fragile states?. *IMF Working Papers*, 20(66). https://doi.org/10.5089/9781513545394.001

Nandi, B., Hasan, G., & Kabir, M. (2021). A tale of the financial inclusion-growth nexus and the degree of financial inclusion: a dynamic panel approach on selected developing countries. *Journal of financial Economic Policy*, 14(3), 381-402. https://doi.org/10.1108/jfep-03-2021-0071

Neaime, S., & Gaysset, I. (2018). Financial inclusion and stability in MENA: Evidence from poverty and inequality. *Finance Research Letters,* 24, 199–220. https://doi.org/10.1016/j.frl.2017.09.007

Nerlove, M. (2002). The history of panel data econometrics, 1861-1997. *Essays in Panel Data Econometrics*.

Nguyen, C. P., Su, T. D., & Tran, V. T. (2020). The determinants of financial inclusion in ASEAN countries: Does education play a role? *Journal of Asian Economics*, 66, 101157. https://doi.org/10.1016/j.asieco.2019.101157

Ningaye, P., Barnabe, A., & Ghislain, B. (2020). Migrant remittances and economic growth: the role of financial efficiency. *South Asian Journal of Social Studies and Economics,* 48-59. https://doi.org/10.9734/sajsse/2020/v7i130183

Ningaye, P., Barnabe, A., & Ghislain, B. (2020). Remittances and Financial inclusion in Africa: A long run approach. *International Journal of Social Science and Economic Research,* 05(06), 1512-1532. https://doi.org/10.46609/ijsser.2020.v05i06.012

Nizam, R., Karim, Z., Rahman, A., & Sarmidi, T. (2020). Financial inclusiveness and economic growth: new evidence using a threshold regression analysis. *Economic*

Research-Ekonomska Istraživanja, 33(1), 1465-1484. https://doi.org/10.1080/1331677x.2020.1748508

Nugroho, A. P. (2023). Qualitative investigation: exploring the challenges faced by indonesian smes in accessing financial services in sukabumi city. *West Science Interdisciplinary Studies*, 1(05), 41-50. https://doi.org/10.58812/wsis.v1i05.72

Nyamongo, E. M., Misati, R. N., Kipyegon, L., & Ndirangu, L. (2012). Remittances, financial development, and economic growth in Africa. *Journal of Economics and Business*, 64(3), 240-260. https://doi.org/10.1016/j.jeconbus.2012.01.001

Nyasha, S. & Odhiambo, N. M. (2019). The impact of public expenditure on economic growth: a review of international literature. *Folia Oeconomica Stetinensia,* 19(2), 81-101. https://doi.org/10.2478/foli-2019-0015

Odhiambo, N. M., & Musakwa, M. T. (2024). Remittance inflows and financial development in Sub-Saharan African countries: Does governance matter?. *Heliyon*, *Journal of Economic Studies*, 47(1), 193-207. https://doi.org/10.1108/JES-06-2018-0230

Ofoeda, I., Amoah, L., Anarfo, E. B., & Abor, J. Y. (2022). Financial inclusion and economic growth: what roles do institutions and financial regulation play?. *International Journal of Finance &Amp; Economics*, 29(1), 832-848. https://doi.org/10.1002/ijfe.2709

Ofori, I. K., Gbolonyo, E. Y., Dossou, M. A. T., Nkrumah, R. K., & Nkansah, E. (2023). Towards inclusive growth in Africa: Remittances, and financial development interactive effects and thresholds. *Journal of Multinational Financial Management*, *68*, 100798.

Ofori, I. K., Gbolonyo, E. Y., Dossou, T. A. M., & Nkrumah, R. K. (2022). Remittances and income inequality in Africa: Financial development thresholds for economic policy. *Research in Globalization,* 4. https://doi.org/10.1016/j.resglo.2022.100084

Ofosu-Mensah Ababio, J., Attah-Botchwey, E., Osei-Assibey, E., & Barnor, C. (2021). Financial inclusion and human development in frontier countries. *International Journal of Finance and Economics,* 26(1), 42–59. https://doi.org/10.1002/ijfe.1775

Okunade, S. O., Olawumi, A. T., Adeyemi, O. J., & Olayemi, A. O. (2023). Socio-economic and security effects of financial exclusion in africa: an experts' view. *Annals of Social Sciences Management Studies*, 9(2). https://doi.org/10.19080/asm.2023.09.555758

Omar, A. & Inaba, K. (2020). Does financial inclusion reduce poverty and income inequality in developing countries? A panel data analysis. Journal of Economic Structures, 9(1). https://doi.org/10.1186/s40008-020-00214-4

Omojolaibi, J. (2017). Financial inclusion, governance and economic progress in nigeria : what happens to the welfare of the poor ?. Oman Chapter of Arabian Journal of Business and Management Review, 6(7), 72-85. https://doi.org/10.12816/0036845

Onalo, U., Lizam, M., & Kaseri, A. (2017). Financial inclusion and the Nigerian economy: Empirical evidences. *Asian Journal of Economics, Business and Accounting*, *4*(4), 1-10.

Ongo Nkoa, B. E., & Song, J. S. (2022). Does institutional quality increase inequalities in Africa?. *Journal of the Knowledge Economy*, *13*(3), 1896-1927.

Opperman, P., Adjasi, C. K. D. (2019). Remittance volatility and financial sector development in sub-ran African countries. *Journal of Policy Modeling,* 41(2), 336–351. https://doi.org/10.1016/j.jpolmod.2018.11.001

Orozco, M., Lowell, B. L., & Schneider, J. (2006). Gender-specific determinants of remittances: Differences in structure and motivation. *Report to the World Bank Group, mimeo*

Osei-Assibey, E. (2010). Choosing Not to Borrow: An Evaluation of Perception and Sociocultural Factors Underlying Voluntary Self-Exclusion. *IUP Journal of Financial Economics*, *8*.

Oyelami, L. O., & Ogundipe, A. A. (2020). An empirical investigation of remittances and financial inclusion nexus in Sub-Saharan Africa. *Cogent Business & Management*, *7*(1), 1712126.

Ozili, P. (2020). Theories of FI. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3526548

Ozili, P. K. (2020). Financial inclusion in nigeria: determinants, challenges and achievements. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3557244

Ozili, P. K. (2020). Theories of financial inclusion. In *Uncertainty and challenges in contemporary economic behaviour* (pp. 89-115). Emerald Publishing Limited.

Ozili, P. K. (2023). Corporate governance and financial inclusion. *Journal of Money and Business,* 3(1), 89-107. https://doi.org/10.1108/jmb-08-2022-0040

Ozili, P. K. (2023). Institutional theory of financial inclusion. *Handbook of Research on Acceleration Programs for SMEs*, 45-53.

Páez, L. (2015). Liberalizing financial services and foreign direct investment: developing a framework for commercial banking FDI. Springer.

Pal, S., Villanthenkodath, M., Patel, G., & Mahalik, M. (2021). The impact of remittance inflows on economic growth, unemployment and income inequality: An international evidence. *International Journal of Economic Policy Studies,* 16(1), 211-235. https://doi.org/10.1007/s42495-021-00074-1

Pardo Montaño, A., & Davila Cervantes, C. (2022). Financial inclusion of remittance recipients andnon-recipients in Mexico. *Intangible Capital*, *18*(3), 315-330.

Park, C.-Y., & Mercado, R. V. (2015). Financial inclusion, poverty, and income inequality in developing Asia. *Asian Development Bank Economics Working Paper Series*, No. 426.

Patrick, H. T. (1966). Financial development and economic growth in underdeveloped countries. *Economic development and Cultural change*, *14*(2), 174-189.

Pradhan, R. P., Arvin, M. B., Norman, N. R., & Bele, S. K. (2017). The dynamics of financial development, globalization, economic growth, and life expectancy in sub-Saharan Africa. *Economic Analysis and Policy*, 56, 1-20.

Qamruzzaman, M. (2023). Does financial innovation foster financial inclusion in arab world? examining the nexus between financial innovation, fdi, remittances, trade openness, and gross capital formation. *Plos One*, 18(6), e0287475. https://doi.org/10.1371/journal.pone.0287475

Qamruzzaman, M., Jianguo, W., Jahan, S., & Yingjun, Z. (2021). Financial innovation, human capital development, and economic growth of selected South Asian countries: An application of ARDL approach. *International Journal of Finance & Economics*, *26*(3), 4032-4053.

Rahman, M. S. (2023). Impact of remittance on gross domestic product (gdp) growth in bangladesh: an overview from 2000 to 2020. *International Journal of Science and Business,* 28(1), 183-192. https://doi.org/10.58970/ijsb.2213

Raichoudhury, A. (2016). Financial inclusion & human development: A cross country analysis. *Journal of Business Research ISSN*, *6*(1), 2016.

Raj, B., & Baltagi, B. H. (2012). *Panel data analysis*: Springer Science & Business Media

Rajan, R. G., & Zingales, L. (2003). The great reversals: the politics of financial development in the twentieth century. *Journal of financial economics*, *69*(1), 5-50.

Rao, K. S. and Baza, A. U. (2017). Barriers to access to and usage of financial services in ethiopia. *Business and Economic Research*, 7(1), 139. https://doi.org/10.5296/ber.v7i1.11034

Ratner, B. (2009). The correlation coefficient: its values range between +1/−1, or do they?. *Journal of Targeting, Measurement and Analysis for Marketing*, 17(2), 139-142. https://doi.org/10.1057/jt.2009.5

Ravikumar, T. (2020). Financial access indicators of financial inclusion: a comparative analysis of saarc countries. *International Journal of Intelligent Enterprise*, 7(1/3), 28. https://doi.org/10.1504/ijie.2020.10026343

Richardson, A. J., & Welker, M. (2001). Social disclosure, financial disclosure and the cost of equity capital. *Accounting, organizations and society*, 26(7-8), 597-616.

Roe, M. J. and Siegel, J. I. (2011). Political instability: effects on financial development, roots in the severity of economic inequality. *Journal of Comparative Economics,* 39(3), 279-309. https://doi.org/10.1016/j.jce.2011.02.001

Romer, P. (1990). Are nonconvexities important for understanding growth? : National Bureau of Economic Research.

Romer, P. M. (1986). Increasing returns and long-run growth. *Journal of political economy, 94*(5), 1002-1037.

Romer, P. M. (1989). Human capital and growth: Theory and evidence.

Romer, P. M. (1990). Endogenous technological change. *Journal of political Economy*, *98*(5, Part 2), S71-S102.

Roodman, D. (2009). How to do xtabond2: An introduction to difference and system GMM in Stata. *The stata journal*, *9*(1), 86-136.
Roodman, D. (2009). How to do xtabond2: An introduction to difference and system GMM in Stata. *The stata journal*, *9*(1), 86-136.
Roy, A. (2023). Nexus between economic growth, external debt, oil price, and remittances in India: New insight from novel DARDL simulations. *Resources Policy*, *83*, 103742.

Roy, D., & Kumar, N. (2021). Digital Financial Inclusion: Policies and Business Models.

Saha, D. and Alam, R. (2022). Revisiting financial inclusion with human development in india. *Indian Journal of Human Development,* 16(3), 548-577. https://doi.org/10.1177/09737030221146018

Saha, M., & Dutta, K. D. (2022). Does governance quality matter in the nexus of inclusive finance and stability?. *China Finance Review International*, *13*(1), 121-139.

Sahay, R., Čihák, M., N'Diaye, P., & Barajas, A. (2020). Rethinking financial deepening: Stability and inclusion for developing countries. *IMF Economic Review*, 68(3), 679-727. https://doi.org/10.1057/s41308-019-00107-9

Sahay, R., Čihák, M., N'Diaye, P., Barajas, A., & Gao, Y. (2015). Financial inclusion: Can it meet multiple macroeconomic goals?. *International Monetary Fund.* https://doi.org/10.5089/9781513585154.006

Sahay, R., Čihák, M., N'Diaye, P., Barajas, A., Mitra, S., Kyobe, A., ... & Yousefi, R. (2015). Rethinking financial deepening: Stability and growth in emerging markets. *IMF Staff Discussion Note, 15*(8).

Saisana, M. (2014). Education Index. In: Michalos, A.C. (eds) Encyclopedia of Quality of Life and Well-Being Research. *Springer, Dordrecht*. https://doi.org/10.1007/978-94-007-0753-5_840

Sarma, M. (2012) "Index of Financial Inclusion-A Measure of Financial Sector Inclusiveness",*Berlin Working Papers on Money, Finance and Development*

Sarma, M., & Pais, J. (2011). FI and development. *Journal of International Development*, 23(5), 613–628. https://doi.org/10.1002/jid.1698

Sarma, M., & Pais, J. (2011). Financial inclusion and development. *Journal of International Development*, 23(5), 613-628. doi:10.1002/jid.1698

Satrovic, E. (2017). Financial development and human capital in Turkey: ARDL approach. *Kapadokya Akademik Bakış*, *1*(2), 1-15.

Saydaliyev, H. B., Chin, L., & Mohamed, A. (2022). Remittance inflow and economic development: interaction with FI and human capital. *Migration and Development*, 11(3), 876–893. https://doi.org/10.1080/21632324.2020.1839215

Saydaliyev, H. B., Chin, L., & Mohamed, A. (2022). Remittance inflow and economic development: interaction with FI and human capital. *Migration and Development*, 11(3), 876–893. https://doi.org/10.1080/21632324.2020.1839215

Seven, U., & Coskun, Y. (2016). Does financial development reduce income inequality and poverty? Evidence from emerging countries. *Emerging Markets Review*, *26*, 34-63.

Shad, M., Ibrahim, S., Azman-Saini, W., Baharumshah, A. Z., & Burhan, N. A. S (2018). The Impact of Social Capital on International Financial Integration. International *Journal of Economics and Management,* 12(S2), 583-597.

Shahbaz, M., Loganathan, N., Tiwari, A. K., & Sherafatian-Jahromi, R. (2015). Financial development and income inequality: Is there any financial Kuznets curve in Iran? *Social Indicators Research*, 124(2), 357-382. https://doi.org/10.1007/s11205-014-0801-9

Shakya, P. and Gonpu, G. P. (2021). Impact of remittances on economic growth in nepal. Nepal Public Policy Review, 31-47. https://doi.org/10.3126/nppr.v1i1.43419

Sharma, S., & Gounder, N. (2012). Determinants of FDI in Pacific Island countries. *Journal of International Development*, 24(6), 745-760.

Shibia, A. G. (2016). Effects of financial literacy on individual choices among financial access strands in kenya. *International Journal of Business and Economics Research*, 5(1), 10. https://doi.org/10.11648/j.ijber.20160501.12

Sikayena, I., Bentum-Ennin, I., Andoh, F. K., & Asravor, R. (2022). Efficiency of public spending on human capital in Africa. *Cogent Economics & Finance*, *10*(1), 2140905.

Singh, A. (2021). Exploring demand-side barriers to credit uptake and financial inclusion. *International Journal of Social Economics*, 48(6), 898-913. https://doi.org/10.1108/ijse-04-2020-0234

Sinnewe, E., & Nicholson, G. (2023). Healthy financial habits in young adults: An exploratory study of the relationship between subjective financial literacy, engagement with finances, and financial decision-making. *Journal of Consumer Affairs*, *57*(1), 564-592.

Sobiech, I. (2019). Remittances, finance and growth: Does financial development foster the impact of remittances on economic growth? *World Development,* 113, 44–59. https://doi.org/10.1016/j.worlddev.2018.08.016

Sudaryo, S., R, M., Zamzami, .., & Safri, M. (2023). What factors affect expenditures of goods/services for infrastructure in indonesia. *International Journal of Financial Management and Economics,* 6(1), 82-89. https://doi.org/10.33545/26179210.2023.v6.i1.174

Swamy, V. (2014). Financial inclusion, gender dimension, and economic impact on poor households. *World development*, *56*, 1-15.

Tabachnick, B. G., & Fidell, L. S. (2007). Using multivariate statistics . Boston, MA: Allyn &Bacon. *Pearson Education. doi*, *10*, 022267.

Thompson, C. G., Kim, R. S., Aloe, A. M., & Becker, B. J. (2017). Extracting the variance inflation factor and other multicollinearity diagnostics from typical regression results. *Basic and Applied Social Psychology*, *39*(2), 81-90.

Thuy, L. N. T. and Hoang, L. N. (2023). The impact of government spending and government quality on energy poverty- a global evidence. *Journal of Economics, Management and Trade,* 29(11), 167-176. https://doi.org/10.9734/jemt/2023/v29i111171

Toxopeus, H. S., & Lensink, R. (2007). Remittances and financial inclusion in development. *Journal of International Development,* 19(1), 1-17. https://doi.org/10.1002/jid.1295

Tram, T. X. H., Lai, T. D., & Nguyen, T. T. H. (2021). Constructing a composite Financial inclusion index for developing economies. Quarterly *Review of Economics and Finance*, xxxx. https://doi.org/10.1016/j.qref.2021.01.003

Tram, T. X. H., Lai, T. D., & Nguyen, T. T. H. (2021). Constructing a composite Financial inclusion index for developing economies. Quarterly *Review of Economics and Finance*, xxxx. https://doi.org/10.1016/j.qref.2021.01.003

Tsaurai, K. (2014). Banking sector development and foreign direct investment. a case of Botswana. *Risk Governance and Control: Financial Markets and Institutions, 4*(3), 44-50.

Tu, C. A., Phi, N. T. M., Yoshino, N., Sarker, T., & Taghizadeh-Hesary, F. (2019). Remittance inflows, financial inclusion, and economic development: An empirical analysis of the world sample (No. 1000). *ADBI Working Paper Series.*

Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449-472. https://doi.org/10.1016/j.jfineco.2011.03.006

Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449-472. https://doi.org/10.1016/j.jfineco.2011.03.006

Vorobets, A. (2024). Functional purpose of local self-government bodies as a subject of ensuring the law enforcement function of the state. *Visegrad Journal on Human Rights*, (2), 127-133. https://doi.org/10.61345/1339-7915.2024.2.20

Vovchenko, N., Galazova, S., Sopchenko, A., & Dzhu, O. (2019). Fintech ecosystem as an instrument of sustainable development provision. *International Journal of Economics and Business Administration,* VII(Special Issue 2), 147-155. https://doi.org/10.35808/ijeba/379

Waliszewski, K. and Warchlewska, A. (2020). Socio-demographic factors determining expectation experienced while using modern technologies in personal financial management (pfm and robo-advice): a polish case. *European Research Studies Journal,* XXIII(Special Issue 2), 893-904. https://doi.org/10.35808/ersj/1904

Wang, H. and Liu, H. (2017). An empirical research of fdi spillovers and financial development threshold effects in different regions of china. *Sustainability,* 9(6), 933. https://doi.org/10.3390/su9060933

Wang, W., Ning, Z., Shu, Y., Riti, M. K. J., & Riti, J. S. (2023). ICT interaction with trade, FDI and financial inclusion on inclusive growth in top African nations ranked by ICT development. *Telecommunications Policy*, *47*(4), 102490.

Wang, X. and Fu, Y. (2021). Digital financial inclusion and vulnerability to poverty: evidence from chinese rural households. *China Agricultural Economic Review*, 14(1), 64-83. https://doi.org/10.1108/caer-08-2020-0189

Wang, X., & Guan, J. (2017). Financial inclusion: measurement, spatial effects and influencing factors. *Applied Economics*, *49*(18), 1751-1762.

Wanti, M., Wesselink, R., Biemans, H., & Brok, P. d. (2022). The role of social factors in access to and equity in higher education for students with low socioeconomic status: a case study from indonesia. *Equity in Education Society*, 2(1), 43-60. https://doi.org/10.1177/27526461221140570

Wellalage, N. H., & Locke, S. (2020). Remittance and financial inclusion in refugee migrants: inverse probability of treatment weighting using the propensity score. *Applied Economics*, *52*(9), 929-950.

Wentzel, J. P., Diatha, K. S., & Yadavalli, V. S. S. (2016). An investigation into factors impacting financial exclusion at the bottom of the pyramid in south africa. *Development Southern Africa,* 33(2), 203-214. https://doi.org/10.1080/0376835x.2015.1120648

Williams, K. (2018). Workers' remittances and government size. *Review of Development Economics*, *22*(3), e115-e134.

Wright, Graham. 2003. "Designing saving services for the poor." *Micro Banking Bulletin*

Xu, M. (2019). The Impact of Political and Cultural Factors on the Success of Microfinance Institutions.

Yadav, P. & Shaikh, I. (2023). Measuring financial resilience with consumer sentiment data from india. *International Journal of Bank Marketing*, 41(5), 1083-1103. https://doi.org/10.1108/ijbm-07-2022-0325

Yadeta, D. B., & Hunegnaw, F. B. (2022). Effect of international remittance on economic growth: Empirical evidence from Ethiopia. *Journal of International Migration and Integration*, *23*(2), 383-402.

Yamori, N., & Ueyama, H. (2020). Financial Literacy and Securities Investments: Based on the Results of" Survey on Wealth Building, Securities Investment and Financial Literacy" (No. DP2020-08).

Yangdol, R. and Sarma, M. (2019). Demand-side factors for financial inclusion: a cross-country empirical analysis. International Studies, 56(2-3), 163-185. https://doi.org/10.1177/0020881719849246

Yaseen, H. S. (2021). Do Remittances Enhance Financial Inclusion? The Role of Governance. *Journal of International Development*, 33(3), 539-557. doi:10.1002/jid.3500

Yeo, A. D., Deng, A., & Nadiedjoa, T. Y. (2020). Trade facilitation effects on international trade: evidence from lower-middle and upper-middle-income countries. *International Journal of Financial Research,* 11(5), 254. https://doi.org/10.5430/ijfr.v11n5p254

Yoshino, N., & Morgan, P. J. (2016). Overview of financial inclusion, regulation, and education. *Asian Development Bank Institute Working Paper*, 591. https://www.adb.org/publications/financial-inclusion-regulation-education

Yoshino, N., Taghizadeh-Hesary, F., & Otsuka, M. (2019). International remittances and poverty reduction: Evidence from developing Asia. *Journal of Comparative Asian Development*, 18(1), 21-42. https://doi.org/10.1080/15339114.2019.1593336

Yoshino, N., Taghizadeh-Hesary, F., & Otsuka, M. (2020a). Determinants of international remittance inflow in Asia-Pacific middle-income countries. *Economic Analysis and Policy*, 68, 29-43. https://doi.org/10.1016/j.eap.2020.07.003

Zhang, Y., & Posso, A. (2019). Financial inclusion in developing countries: What impact does education have? *Journal of International Development,* 31(3), 230-249. https://doi.org/10.1002/jid.3414

Zins, A., & Weill, L. (2021). The determinants of financial inclusion in Africa: The role of institutional factors. *World Development,* 128, 104-124. https://doi.org/10.1016/j.worlddev.2019.104124

APPENDIX

Appendix 1

List of Countries

Lower-Income	**Lower-Middle Income**	**Upper Income**
Burkina Faso	Algeria	Albania
Central African Republic	Angola	Argentina
Chad	Bangladesh	Armenia
Congo, Dem. Rep.	Benin	Azerbaijan
Gambia, The	Bolivia	Belarus
Guinea-Bissau	Cambodia	Bosnia and Herzegovina
Liberia	Cameroon	Botswana
Madagascar	Comoros	Brazil
Malawi	Congo, Rep.	Bulgaria
Mali	Cote d'Ivoire	China
Mozambique	Egypt, Arab Rep.	Colombia
Niger	El Salvador	Costa Rica
Rwanda	Ghana	Dominican Republic
Sudan	Haiti	Ecuador
Togo	India	Gabon
Uganda	Honduras	Georgia
	Indonesia	Guatemala
	Kenya	Iraq
	Kyrgyz Republic	Jamaica
	Lesotho	Jordan
	Mauritania	Kazakhstan
	Mongolia	Kosovo
	Morocco	Lebanon
	Myanmar	Malaysia
	Nepal	Maldives
	Nicaragua	Mauritius
	Nigeria	Mexico
	Pakistan	Moldova
	Philippines	Montenegro
	Senegal	Namibia
	Tajikistan	North Macedonia
	Tanzania	Paraguay
	Tunisia	Peru
	Ukraine	Russian Federation
	Uzbekistan	Serbia
		South Africa
		Thailand
		Turkiye

Appendix 2

Financial Reachability Ranking

Country	FI index	Rank	Country	FI index	Rank
China	0.512629952	1	Ukraine	0.143995628	47
Thailand	0.427260959	2	Kosovo	0.143385897	48
Malaysia	0.422076226	3	Bangladesh	0.142340075	49
South Africa	0.369273349	4	Ecuador	0.141775957	50
Brazil	0.361479101	5	Zambia	0.139719721	51
Namibia	0.307180543	6	Paraguay	0.138440768	52
Mauritius	0.300175165	7	Ghana	0.131554872	53
Mongolia	0.270383742	8	Gabon	0.127886119	54
Costa Rica	0.265523988	9	Cameroon	0.12689263	55
Lebanon	0.257249859	10	Nicaragua	0.124864441	56
Kenya	0.250843345	11	Tunisia	0.121071649	57
Panama	0.247071457	12	Azerbaijan	0.118056168	58
Maldives	0.244665226	13	Rwanda	0.117976536	59
Turkiye	0.236583123	14	Nigeria	0.114469986	60
Vietnam	0.228652181	15	Iraq	0.108981669	61
Jamaica	0.227803794	16	Argentina	0.108478935	62
Bulgaria	0.223612816	17	Tanzania	0.107549605	63
Russian Federation	0.219559824	18	Algeria	0.107482643	64
Nepal	0.218231707	19	Egypt, Arab Rep.	0.106759839	65
Botswana	0.210369168	20	Haiti	0.104109766	66
Dominican Republic	0.202759584	21	Benin	0.101359376	67
Bolivia	0.198653222	22	Myanmar	0.093668512	68
India	0.19563233	23	Zimbabwe	0.09273114	69
Cambodia	0.194223061	24	Senegal	0.091457402	70
Georgia	0.192691025	25	Kyrgyz Republic	0.086249493	71
Bosnia and Herzegovina	0.191028557	26	Comoros	0.086040141	72
Serbia	0.190018811	27	Cote d'Ivoire	0.084889379	73
Belarus	0.187721207	28	Uganda	0.084014784	74
Montenegro	0.185738864	29	Togo	0.08152379	75
North Macedonia	0.180400766	30	Pakistan	0.0814697	76
Honduras	0.177740592	31	Congo, Rep.	0.076768631	77
Jordan	0.173569524	32	Liberia	0.070698842	78
El Salvador	0.17176102	33	Burkina Faso	0.060720481	79
Romania	0.170830768	34	Sudan	0.05999052	80
Armenia	0.170379053	35	Mali	0.057617809	81
Lesotho	0.170368976	36	Uzbekistan	0.052903896	82
Guatemala	0.167759945	37	Malawi	0.045764514	83

Indonesia	0.167571244	38	Madagascar	0.030710936	84
Moldova	0.166855512	39	Central African Republic	0.025133189	85
Mexico	0.16461127	40	Niger	0.022236753	86
Kazakhstan	0.161310563	41	Guinea	0.020568473	87
Colombia	0.152215496	42	Congo, Dem. Rep.	0.017968379	88
Peru	0.15067161	43	Chad	0.014542841	89
Albania	0.15033148	44	Gambia, The	0	90
Morocco	0.147971565	45	Mozambique	0	90
Angola	0.147608933	46	Philippines	0	90

Appendix 3

Penetration Dimension Ranking

Country	Penetration	Rank	Country	Penetration	Rank
Turkiye	0.844125	1	Honduras	0.123472	46
Brazil	0.711947	2	Gabon	0.120059	47
Ukraine	0.626423	3	Philippines	0.103714	48
Argentina	0.572303	4	Mauritania	0.10287	49
China	0.468022	5	Mali	0.100995	50
Russian Federation	0.444869	6	Nicaragua	0.097956	51
Mauritius	0.441393	7	Zambia	0.09756	52
North Macedonia	0.440298	8	Algeria	0.095522	53
Serbia	0.400485	9	India	0.094207	54
Belarus	0.37926	10	Lesotho	0.090041	55
Malaysia	0.372169	11	Vietnam	0.089922	56
Montenegro	0.369345	12	Mongolia	0.089549	57
Kazakhstan	0.362403	13	Ghana	0.087582	58
Bulgaria	0.341418	14	Burkina Faso	0.085519	59
Maldives	0.33212	15	Congo, Rep.	0.084263	60
Georgia	0.323875	16	Kyrgyz Republic	0.081641	61
Costa Rica	0.319157	17	Benin	0.078425	62
Romania	0.302831	18	Jordan	0.077654	63
Colombia	0.302168	19	Nigeria	0.077431	64
Dominican Republic	0.29822	20	Egypt, Arab Rep.	0.076458	65
Mexico	0.288526	21	Liberia	0.075663	66
Bosnia and Herzegovina	0.277928	22	Senegal	0.071687	67
Jamaica	0.274945	23	Central African Republic	0.070564	68
Peru	0.271378	24	Uganda	0.068432	69
Namibia	0.269005	25	Chad	0.065035	70
Kosovo	0.267579	26	Uzbekistan	0.063308	71
Thailand	0.250107	27	Iraq	0.059755	72
Lebanon	0.245535	28	Niger	0.059614	73
South Africa	0.240282	29	Guinea	0.059152	74
Ecuador	0.225816	30	Cameroon	0.058301	75
Moldova	0.224005	31	Togo	0.057826	76
Panama	0.21032	32	Indonesia	0.055046	77
Mozambique	0.20312	33	Congo, Dem. Rep.	0.054991	78
Botswana	0.198657	34	Cote d'Ivoire	0.048496	79
Bolivia	0.184123	35	Malawi	0.047032	80
Albania	0.174249	36	Tanzania	0.042748	81
Armenia	0.162376	37	Cambodia	0.041461	82

Paraguay	0.161713	38	Zimbabwe	0.037659	83
Tunisia	0.160362	39	Nepal	0.037474	84
Guatemala	0.160209	40	Rwanda	0.037185	85
Azerbaijan	0.158695	41	Madagascar	0.03281	86
El Salvador	0.144547	42	Comoros	0.032424	87
Kenya	0.141085	43	Pakistan	0.030142	88
Haiti	0.138229	44	Myanmar	0.029064	89
Angola	0.134962	45	Bangladesh	0.028985	91
			Sudan	0.025285	92
			Morocco	0.024889	93

Appendix 4

Accessibility Dimension Ranking

Country	Accessibility	Rank	Country	Accessibility	Rank
Mongolia	0.936545	1	Angola	0.128235	47
Bulgaria	0.799857	2	Rwanda	0.128015	48
Mexico	0.568638	3	Azerbaijan	0.122893	49
Bolivia	0.565816	4	China	0.120002	50
Uzbekistan	0.54256	5	Botswana	0.119743	51
Thailand	0.482489	6	Philippines	0.116542	52
Guatemala	0.438424	7	Bangladesh	0.115442	53
Bosnia and Herzegovina	0.432673	8	Togo	0.114935	54
Georgia	0.430197	9	Mali	0.114439	55
Moldova	0.42269	10	Nicaragua	0.114229	56
Maldives	0.417237	11	Mauritania	0.112527	57
Romania	0.385564	12	Liberia	0.107852	58
Russian Federation	0.331712	13	Kyrgyz Republic	0.10527	59
Morocco	0.328085	14	Gambia, The	0.104248	60
Armenia	0.314902	15	Burkina Faso	0.104142	61
Lebanon	0.3109	16	Zimbabwe	0.10302	62
Serbia	0.303284	17	Peru	0.097443	63
Albania	0.291561	18	Cambodia	0.097288	64
Belarus	0.283351	19	Ghana	0.096209	65
Costa Rica	0.282545	20	Kazakhstan	0.095847	66
Tunisia	0.278068	21	Malawi	0.09447	67
Brazil	0.267845	22	Eswatini	0.0933	68
Montenegro	0.265484	23	Jamaica	0.078171	69
India	0.262358	24	Tajikistan	0.07316	70
Mauritius	0.23538	25	Iraq	0.071426	71
Indonesia	0.22559	26	Egypt, Arab Rep.	0.068761	72
Jordan	0.20477	27	Algeria	0.068589	73
Colombia	0.20375	28	Guinea	0.067665	74
Kosovo	0.198792	29	Myanmar	0.066732	75
South Africa	0.194264	30	Senegal	0.06653	76
North Macedonia	0.189731	31	Kenya	0.066437	77
Uganda	0.188317	32	Nigeria	0.066223	78
Honduras	0.181686	33	Cote d'Ivoire	0.061972	79
Argentina	0.181046	34	Niger	0.061178	80
Nepal	0.175915	35	Sudan	0.06089	81
Namibia	0.166063	36	Central African Republic	0.057455	82

Dominican Republic	0.161252	37	Congo, Dem. Rep.	0.056834	83
El Salvador	0.159077	38	Chad	0.056793	84
Turkiye	0.157231	39	Zambia	0.053076	85
Mozambique	0.150948	40	Madagascar	0.051421	86
Ecuador	0.146881	41	Lesotho	0.046481	87
Gabon	0.144294	42	Vietnam	0.046274	88
Malaysia	0.139466	43	Benin	0.043943	89
Paraguay	0.138597	44	Comoros	0.038792	91
Panama	0.133677	45	Lao PDR	0.03692	92
Pakistan	0.130954	46	Tanzania	0.033963	93

Appendix 5

Useability Dimension Ranking

Country	Useability	Rank	Country	Useability	Rank
China	0.532133	1	Peru	0.150671	47
Thailand	0.427262	2	Albania	0.150332	48
Malaysia	0.422077	3	Morocco	0.147972	49
South Africa	0.369274	4	Angola	0.147609	50
Brazil	0.361477	5	Ukraine	0.143993	51
Namibia	0.307099	6	Kosovo	0.143385	52
Mauritius	0.29966	7	Bangladesh	0.142341	53
Mongolia	0.270385	8	Ecuador	0.141776	54
Costa Rica	0.265511	9	Zambia	0.13972	55
Lebanon	0.25725	10	Paraguay	0.138441	56
Kenya	0.250844	11	Ghana	0.135117	57
Panama	0.247072	12	Gabon	0.127883	58
Maldives	0.244665	13	Nicaragua	0.124865	59
Turkiye	0.23658	14	Senegal	0.12361	60
Vietnam	0.228653	15	Argentina	0.123148	61
Jamaica	0.227804	16	Cameroon	0.119198	62
Bulgaria	0.223612	17	Azerbaijan	0.118056	63
Russian Federation	0.221147	18	Rwanda	0.117969	64
Nepal	0.218233	19	Mauritania	0.117755	65
Botswana	0.210369	20	Tanzania	0.10755	66
Dominican Republic	0.202759	21	Algeria	0.107483	67
Bolivia	0.198653	22	Egypt, Arab Rep.	0.10676	68
India	0.195633	23	Haiti	0.104097	69
Cambodia	0.194224	24	Iraq	0.102269	70
Georgia	0.19269	25	Benin	0.10136	71
Bosnia and Herzegovina	0.191028	26	Zimbabwe	0.092732	72
Serbia	0.190018	27	Myanmar	0.088926	73
Belarus	0.18772	28	Kyrgyz Republic	0.08625	74
Montenegro	0.185738	29	Comoros	0.086041	75
North Macedonia	0.1804	30	Cote d'Ivoire	0.08489	76
Honduras	0.177716	31	Uganda	0.084015	77
Tunisia	0.17369	32	Togo	0.081522	78
Jordan	0.17357	33	Pakistan	0.08147	79
El Salvador	0.171761	34	Congo, Rep.	0.076769	80
Romania	0.17083	35	Liberia	0.061793	81
Armenia	0.170379	36	Uzbekistan	0.061143	82
Lesotho	0.17037	37	Burkina Faso	0.060721	83
Guatemala	0.16776	38	Sudan	0.059986	84

Indonesia	0.167572	39	Mali	0.057618	85
Moldova	0.166855	40	Malawi	0.045765	86
Mexico	0.164611	41	Madagascar	0.030711	87
Philippines	0.161383	42	Central African Republic	0.025133	88
Mozambique	0.161383	43	Niger	0.022235	89
Kazakhstan	0.16131	44	Guinea	0.020568	91
Nigeria	0.158484	45	Congo, Dem. Rep.	0.017427	92
Colombia	0.152215	46	Chad	0.014543	93