

## **Financial Inclusion: An Analysis in the World and Colombia**

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### **Abstract**

In this research a bibliometric analysis was carried out to identify the trends of scientific publications on the thematic area "Financial inclusion" at the Colombian and international level, the exploration of the literature was oriented to articles published between 2002 and 2022, the search was limited to the areas of knowledge related to management sciences and economics. For information retrieval, the meta-search engines Wos and Scopus were used, which are the best indexed databases used by researchers, the files were downloaded in bibtex format, then 765 repeated records at international level were unified and discarded, leaving a single file in csv format with 1940 documents, the file with the total of the records was processed with the statistical program RStudio. Among the findings obtained, it is highlighted that the annual research production had an increasing trend, where the year with more production was 2019 with 254 contributions, the journal with more impact at international level was "World development" and at Colombian level "Social indicators research", the country that contributes most to the research area at world level is India with 483, followed by the United States with 237 works, the most relevant institution is Makerere University Business School and finally the author with more impact in Colombia and internationally are Almeyda G. and Munene J. respectively.

**Keywords:** Colombia, financial inclusion, bibliometric analysis, literature review.

### **1. Introduction**

Poverty and inequality are one of the most relevant issues in the current context, which within the process of globalization and communication has strengthened a commitment from the international community and society in general to generate new bets that provide solutions to these problems. In this way, it is observed how financial inclusion gathers great interest worldwide, since this is a tool that can help generate economic development by the most disadvantaged countries and communities and thus improve the quality of life of people (Gómez-Gómez, Morales Zuluaga and Castellanos-Martínez, 2020). In this way, financial inclusion includes the ability to provide financial services and products to those who historically have not had access to them, so that these same resources become a bridge to develop investments in areas such as training, property acquisition or for the implementation of a business model (Anaya-Narváez and Romero-Álvarez, 2018).

It is an aspect that, based on scientific evidence, shows a greater impact in developed countries because they have more effective and technical tools within their financial system; while developing or underdeveloped countries tend not to have these elements in their contexts, which makes it very difficult to implement policies and strategies aimed at financial inclusion (Orazi, Martinez and Vigier, 2019). It is for this reason that currently developing countries such as Colombia have launched strategies aimed at evolving their financial systems within the framework of financial inclusion; allowing a greater part of the population to be able to enter and access the benefits of financial services and products (Romero-Álvarez, Niebles-Núñez and Niebles-Núñez, 2020). This current trend allows us to raise the question of how the field of scientific production is developing in relation to financial inclusion in Colombia and the world, allowing us to recognize trends and characteristics of said production as a sign of progress in this area. Due to the aforementioned, this bibliometric article is directed towards identifying the trends of scientific publications on the thematic area "Financial inclusion" at the Colombian and international level.

## 2. Methodology

Using the best current metasearch engines such as Wos and Scopus, a bibliometric analysis was carried out with the aim of recognizing trends, the most representative authors, the journals that publish the most on the research topic "Financial inclusion in Colombia and internationally". The exploration of the literature began using the keywords "financial inclusion" and Colombia in the aforementioned search engines, together with search techniques such as the use of Boolean operators, in this case (AND and AND NOT), of adjacency (" ") and the application of filters for the years from 2002 to date and for areas of knowledge related to the research topic, leaving the search equations as follows:

- **Wos**, (TS = ("financial inclusion")) AND TS=(Colombia);
- **Scopus**, (TITLE-ABS-KEY ( "financial inclusion" ) AND TITLE-ABS-KEY ( colombia ) ) AND PUBYEAR > 2001 AND PUBYEAR > 2001.

In the first search carried out, 21 results were found in Scopus and 23 in Wos, which were unified and 17 duplicate documents were found, these were eliminated using the R software, leaving a single file with 23 works in csv format.

As this number of works found are not enough for the development of the research work, it was decided to develop a second search orienting the research topic towards the international part and filtering by the areas of knowledge related to the topic, as a result in Scopus they found 1610 works and in Wos 1095, to find these results the following search equations were used:

- **Wos**, (TS = ("financial inclusion")) and Economics or Business Finance or Business or Management (Web of Science Categories) and English or Spanish (Languages).

- **Scopus**, (TITLE-ABS-KEY (“financial inclusion”) AND NOT TITLE-ABS-KEY (Colombia)) AND PUBYEAR > 2011 AND (LIMIT-TO (SUBJAREA,“ECON” ) OR LIMIT-TO (SUBJAREA, “BUSI”)) AND (LIMIT-TO (LANGUAGE, “English”) OR LIMIT-TO (LANGUAGE , “Spanish”)).

These results were unified and 765 duplicate records were extracted, forming a single file of 1940 documents in csv format. These resulting files were processed using the RStudio package called bibliometrix, from which the tables and graphs shown in the following section were extracted.

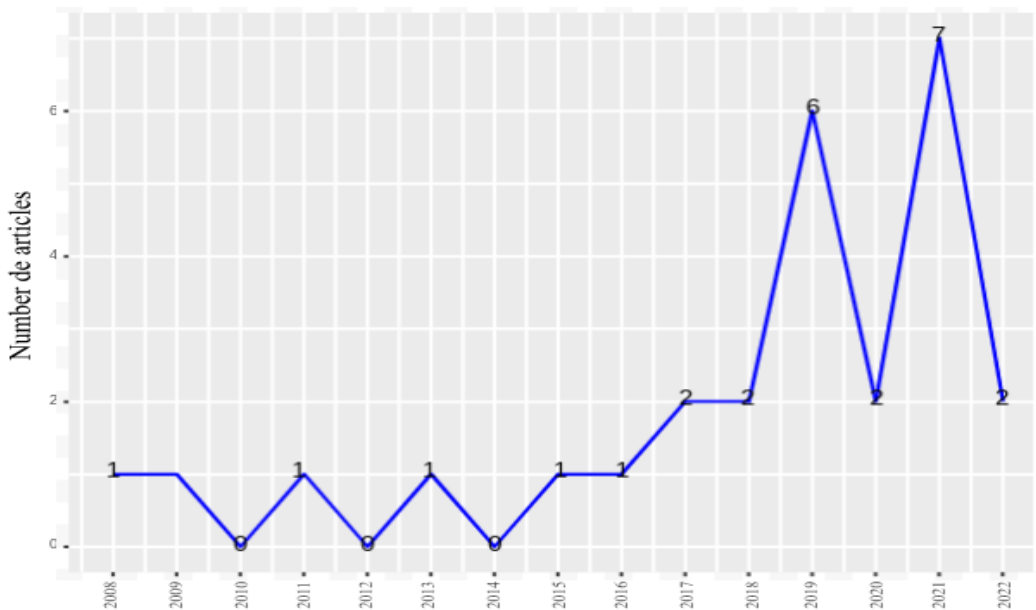
### 3. Results and Discussion

**Figure 1: Tree Map**



Figure 1 shows a tree map in which the most important keywords retrieved from the exploration of the literature carried out on the research topic in the Wos and Scopus metasearch engines can be observed. Where the three words that appear most frequently are financial inclusion with 39% of the total, financial literacy, and microfinance with 4%, demonstrating that there is consistency with the documents retrieved.

**Figure 2: Annual scientific production in Colombia**



**Figure 3: International annual scientific production**

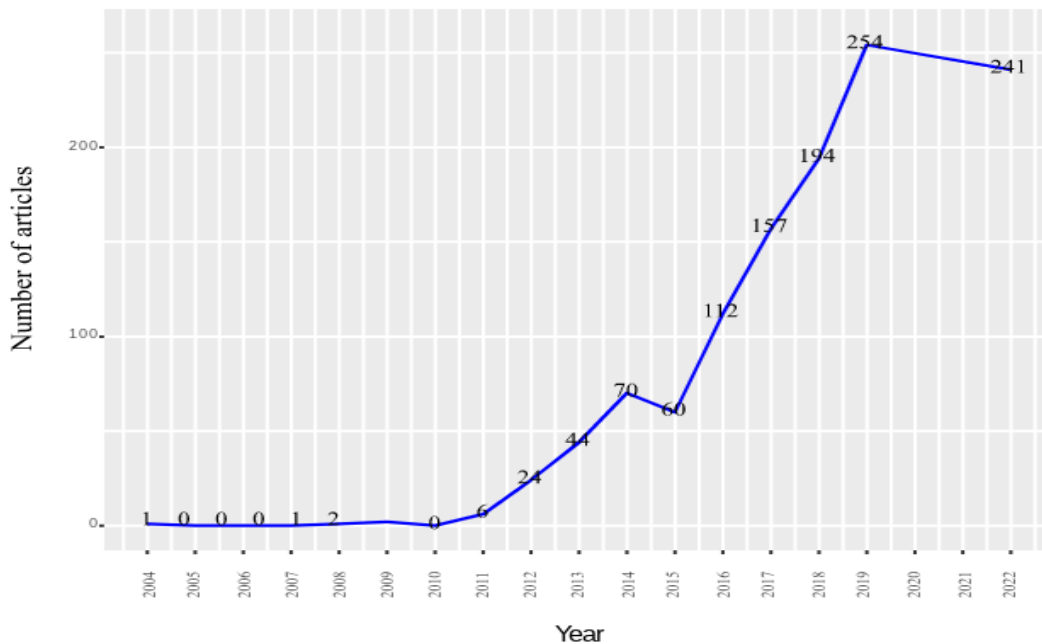


Figure 2 shows the evolution of the annual scientific production for Colombia in the period from 2008 to 2022, where the production has been very low and that the most productive years were 2019 and 2021 with 6 and 7 contributions, respectively. Regarding international production, for the period between 2004 and 2022, a growing trend is observed as of 2011 and its maximum rebound occurred in 2019 with 254 contributions to the research area, as can be seen in the figure 3.

**Figure 4: Country scientific production**

## Country Scientific Production

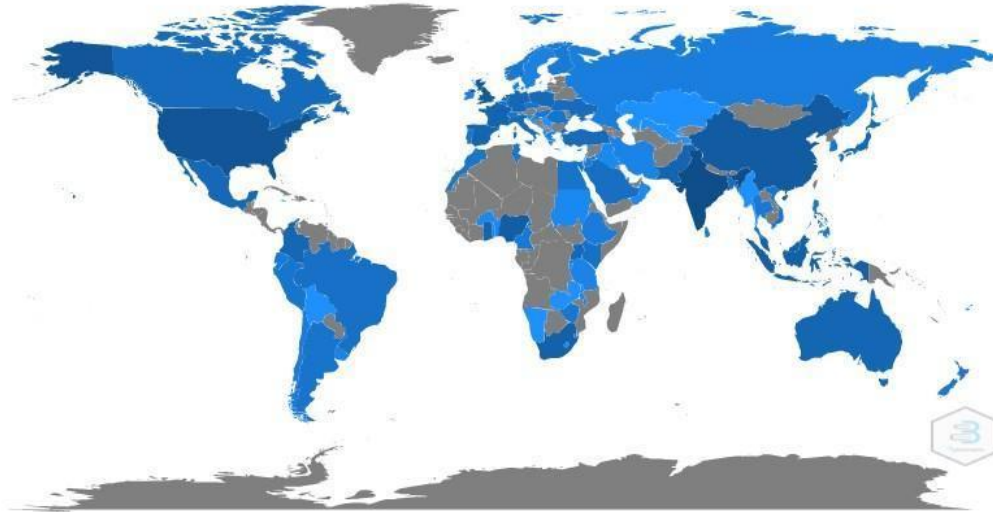
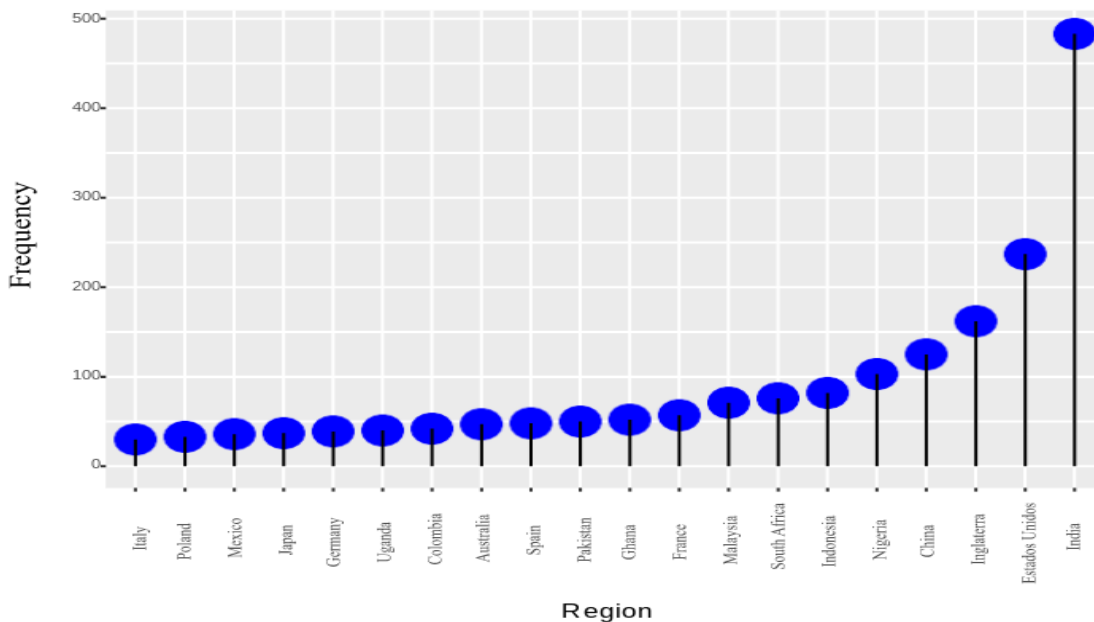


Figure 4 shows in blue the countries that have made academic contributions about research, the darker tones indicate greater production.

The twenty countries that publish the most on financial inclusion are highlighted below.

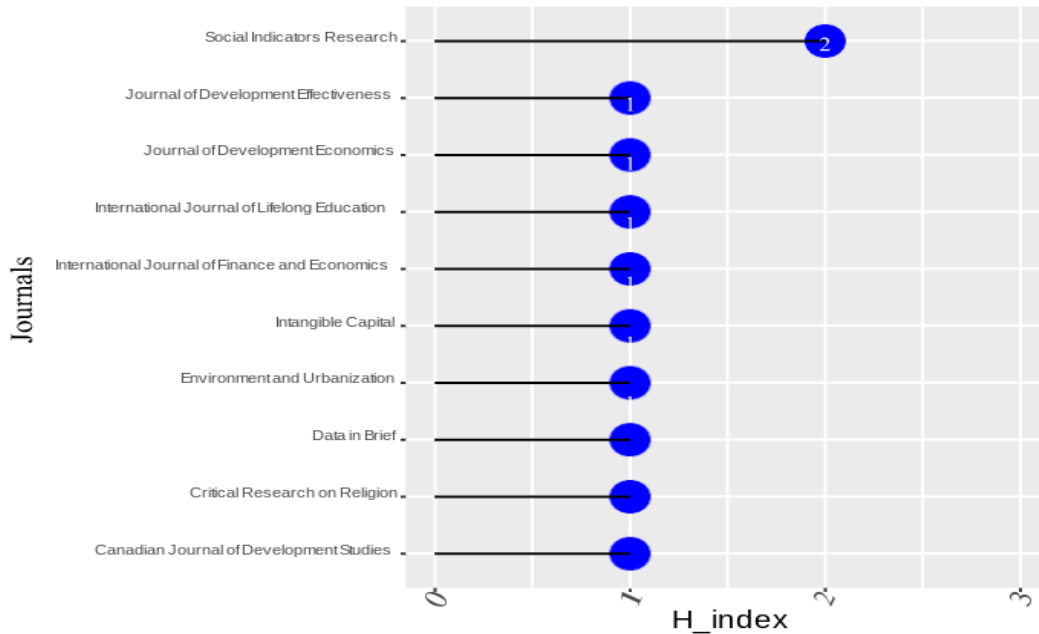
**Figure 5: Most productive countries**



From figure 5, we can highlight the five countries that publish the most on the subject, among them we have India with 483 contributions, followed by the United States with 237, England with 162, China with 125 and Nigeria with 103 contributions. From the country that contributes the most in

the area of research, we can highlight the work of Singh & Yadava, (2022) which indicates that “Financial inclusion programs are used as an important tool for economic development in emerging economies. Human development is the main determinant of financial inclusion, creating opportunities for people to better access financial services. The main objective of the study is to examine the technical efficiency of financial inclusion of Indian states through data envelopment analysis using human development as input.

**Figure 6: Journals that have the most impact in Colombia**

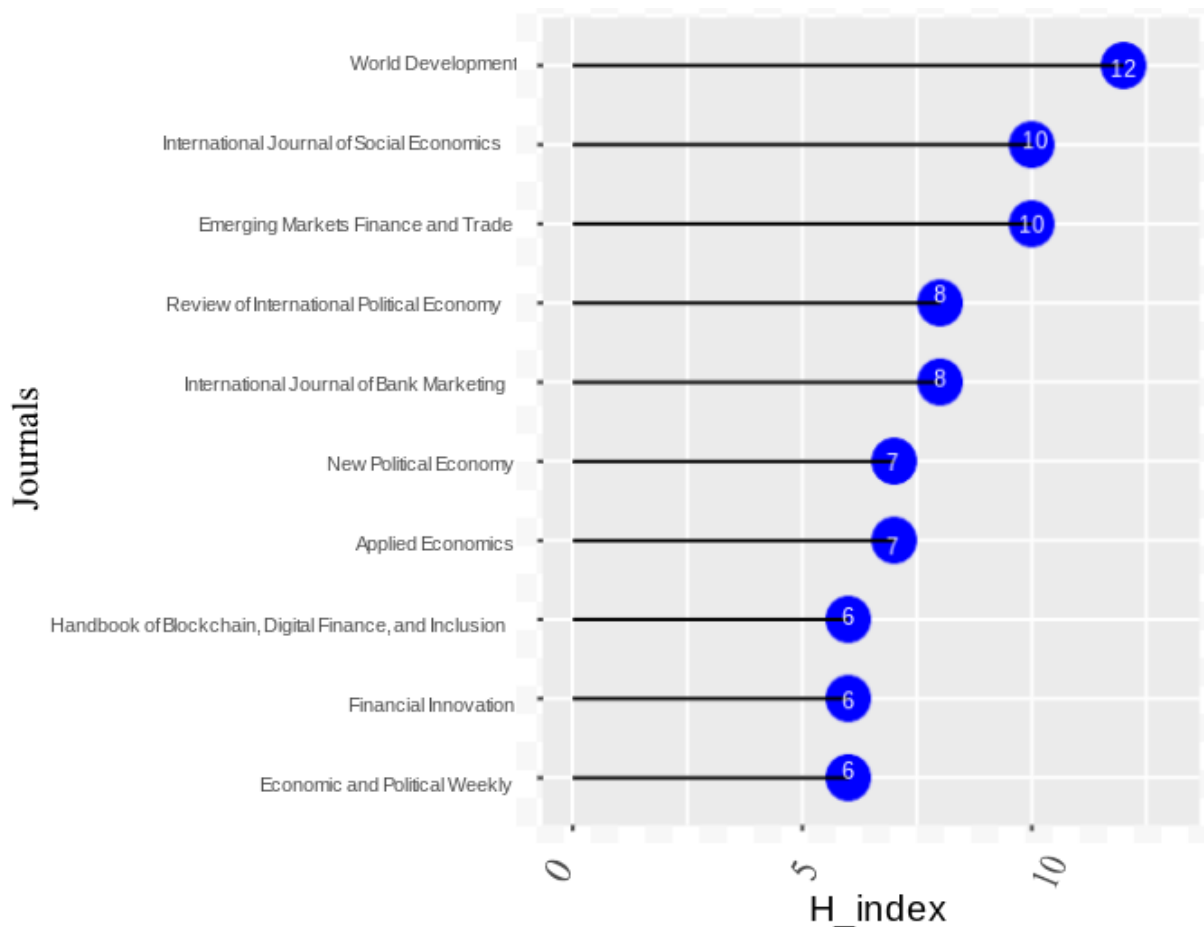


In figure 6, we can highlight the four journals that have the most impact in the field of research "Financial Inclusion" at the Colombian level, considering the H index: Social Indicators Research with 2, followed by Canadian Journal of Development Studies with 1, Critical Research on Religion with 1 and Data in Brief with

1. The most representative research of the journal with the greatest impact indicates that “Focusing on different facades of financial well-being, such as wealth accumulation and retirement planning, several determinants of financial well-being have been discovered and financial education has emerged as a crucial factor that increases financial well-being. Therefore, financial education has been an important policy instrument to increase people's financial well-being, particularly since it is relatively easy to implement. This document is an attempt to pave the way for such policies in a group of middle-income countries, namely Mexico, Lebanon, Uruguay, Colombia, and Turkey. After establishing levels of financial literacy, we identify the least financially literate groups in each country to facilitate public policy targeting. We find that women, young adults, and people who cannot read or write in the official language of their country of residence have lower financial literacy scores. In line with previous findings in the literature on developed countries, our results indicate that financial literacy increases with education. We also show that it is not only the years of education, but also the quality. In Mexico

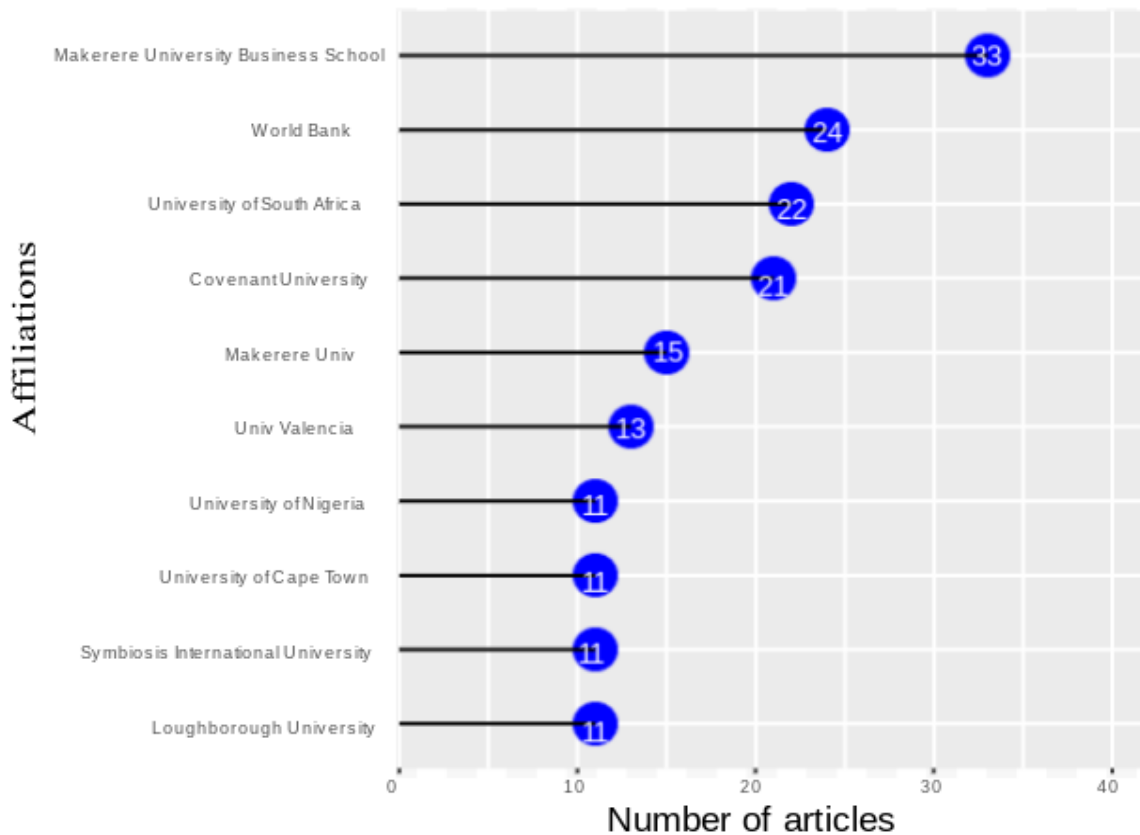
and Turkey, there are large regional differences that need to be addressed. We also find that differences in financial literacy across countries persist even when differences in structural characteristics are considered. Differences in financial inclusion may provide a partial explanation.” (Karakurum-Ozdemir, Kokkizil, & Uysal, 2019)

**Figure 7: Journals that have the most impact internationally**



In figure 7, we can highlight the four journals that have the most impact in the field of research "Financial Inclusion" at an international level, considering the H index: World Development with 12, followed by Emerging Markets Finance and Trade with 10, International Journal of Social Economics with 10 and International Journal of Bank Marketing with 8. The most representative research of the journal with the highest impact indicates that “The purpose of this document is to examine the relationship between financial inclusion (FI) and economic growth in India. Design/methodology/approach: To measure FI, a multidimensional time-varying index is proposed following the Human Development Index method. The long-run relationship between FI and economic growth is examined using the autoregressive distributed lag approach (ARDL) for cointegration and the nonlinear ARDL approach. In addition, the direction of causality is investigated using the Toda-Yamamoto Granger causality test.” (Sethi & Sethy, 2019)

**Figure 8: Most important affiliations**



From figure 8, it can be noted that the five universities that publish the most about research are: Makerere University Business School with 33 publications, followed by World Bank with 24, University of South Africa with 22, Covenant University with 21 and Makerere Univ with 15 publications.

From the Makerere University Business School institution, the article by the authors Mindra, Moya, and Zuze, (2017), which examines the relationship between financial self-efficacy (FSE) and financial inclusion (FI) among individual financial consumers in Uganda, stands out. Design/methodology/approach: Using a quantitative approach and cross-sectional research design, a sample of 400 people was drawn from central urban and rural areas of northern Uganda. SPSS and AMOS 21, regression analysis, and structural equation modeling were used to establish the hypothesized relationship between FSE and FI. Findings: The results suggest a strong positive and significant relationship between FSE and FI. The results further suggest that other variables that were controlled for, such as age and gender, had a significant influence on an individual's use of formal financial services. Research Implications/Limitations: The study was evaluated using potential and actual consumers of financial services collectively. However, if evaluated separately, there would possibly be variation in behavioral responses to IF. Practical implications: Formal financial service providers need to improve people's levels of trust in managing finances and using formal financial products and services, so that financial consumers can become aware of changes in financial behavior and, consequently, of the IF. Social Implications: Improving people's level of



confidence in evaluating available financial service options will guide them to make financial decisions that will improve their livelihoods. Originality/Value: The results contribute to the limited theoretical and empirical evidence for FSE and FI from a behavioral demand-side perspective.

**Table 1: Authors with the greatest impact in Colombia**

Author	H_index	G_index	M_index	TC	NP	PY_start
Almeyda G	1	1	0.250	1	1	2019
Anaya N A	1	1	0.333	8	1	2020
Bartel R	1	1	0.500	1	1	2021
Bauchet J	1	1	0.167	3	1	2017
Buelvas P J	1	1	0.333	8	1	2020
Castaño-Muñoz W	1	1	0.500	11	1	2021
Da C N	1	1	0.500	3	1	2021
Damon A	1	1	0.167	3	1	2017
De J G	1	1	0.250	1	1	2019
Del P E M	1	1	0.125	1	1	2015
Durango-Gutiérrez M	1	1	0.500	2	1	2021
Fajardo R M	1	1	0.250	1	1	2019
Garcia L	1	1	0.125	1	1	2015
Granda C	1	1	0.250	2	1	2019
Gustavo C C	1	1	0.125	1	1	2015
Hamann F	1	1	0.250	2	1	2019
Karakurum-Ozdemir K	1	1	0.250	32	1	2019
Kokkizil M	1	1	0.250	32	1	2019
Lara-Rubio J	1	1	0.500	2	1	2021
Larsen V	1	1	0.167	3	1	2017

Table 1 shows that the five researchers with the highest H index who publish on job performance are: Almeyda G with 1, followed by Anaya N A with 1, Bartel R with 1, Bauchet J with 1 and Buelvas P J with 1. A study of the most representative authors indicates that “Since the new millennium, the issue of financial inclusion of young people has gained more and more recognition, especially in relation to those who live in circumstances of deprivation. Financial inclusion can be promoted through education specifically aimed at strengthening the financial capabilities of young people. In 2013, a participatory action research project was initiated in a rural region of Colombia to improve the research capacity of a local university through the

development and implementation of a demonstration project on youth financial inclusion. University professors, students and employees of a financial cooperative were trained in qualitative methods with the specific objective of being receptive to the life stories of their interviewees. This paper shares the experiences of an international team of educational scholars seeking the democratization of research capacity and the dissemination of localized knowledge. This is done by working closely with stakeholders and ultimately giving a voice to young people employed in the informal economy, as they are often the most deprived of access to financial services.” (De Jong, Fajardo, & Almeyda, 2019)

**Table 2: Authors with the greatest impact at the international level**

Author	H_index	G_index	M_index	TC	NP	PY_start
Munene J	8	13	1.143	190	17	2016
Ntayi J	8	13	1.143	179	13	2016
Bongomin G	6	12	0.857	145	12	2016
Iheanachor N	6	6	1.500	80	6	2019
Klapper L	6	7	0.600	616	7	2013
Umukoro I	6	6	1.500	80	6	2019
Ahmad M	5	6	0.833	68	6	2017
Ali M	5	6	0.833	36	6	2017
David-West O	5	5	1.250	70	5	2019
Ghosh S	5	11	0.556	144	11	2014
Malinga C	5	8	0.833	126	8	2017
Wang X	5	8	0.833	103	8	2017
Abor J	4	6	0.800	129	6	2018
Ahamed M	4	4	0.571	126	4	2016
Allen F	4	4	0.444	349	4	2014
Cull R	4	4	0.444	124	4	2014
Demirgüç-Kunt A	4	4	0.400	297	4	2013
Giri A	4	4	0.500	67	4	2015
Hassan M	4	10	0.444	271	10	2014
Koomson I	4	7	1.333	99	7	2020

In Table 2, the five researchers with the highest H index who publish on “Financial inclusion” are: Munene J with 8, followed by Ntayi J with 8, Bongomin G with 6, Iheanachor N with 6 and Klapper L with 6. A study of the most representative authors corresponds to Okello and Munene (2016) which examines the mediating role of social capital in financial education and the relationship of financial inclusion in rural areas of Uganda. The main objective is to establish the role of social capital in the relationship between financial education and financial inclusion.

**Table 3: Most cited documents at the Colombian level**

Paper	DOI	Total Citations
Karakurum-Ozdemir K, 2019, Soc Indic Res	10.1007/s11205-018-1952-x	32
Solo Tm, 2008, Environ Urban	10.1177/0956247808089148	30
Van Klyton A, 2021, j Rural Stud	10.1016/j.jrurstud.2020.10.035	11
Thoene U, 2017, Intang Cap	10.3926/ic.946	11
Martínez L, 2020, Data Brief	10.1016/j.dib.2020.106287	10
Anaya Narváez Ar, 2020, Rev Cienc Soc	NA	8
Urrea Ma, 2011, can j Dev Stud	10.1080/02255189.2011.647442	7
Polloni-Silva E, 2021, Soc Indic Res	10.1007/s11205-021-02730-7	3
Bauchet J, 2017, j Dev Eff	10.1080/19439342.2017.1363802	3
Durango-Gutiérrez Mp, 2021, Int j Financ Econ	10.1002/ijfe.2475	2

The top 10 with the most cited documents globally is presented in table 4, from which it can be seen that the 5 most relevant works are: Karakurum-Ozdemir K, 2019, Soc Indic Res with (32) citations, Solo Tm , 2008, Environ Urban with (30), Van Klyton A, 2021, j Rural Stud with (11), Thoene U, 2017, Intang Cap with (11) and Martínez L, 2020, Data Brief with (10).

This article summarizes the results of an investigation in Bogotá, Colombia and Mexico City on the use of financial services by the urban population. The focus is on most people who have no relationship with a formal bank, cooperative or credit union. The document identifies the characteristics of those who are unbanked and the range of reasons for their exclusion. The multiple and considerable costs that this exclusion imposes on the unbanked population are also discussed, as well as the loss of income that it generates for financial institutions in the formal sector. The document concludes by describing some measures taken to extend financial services to the low-income population and proposes the importance of linking “financial inclusion” to urban development and upgrading programs focused on the poor in developing countries (Solo, 2008).

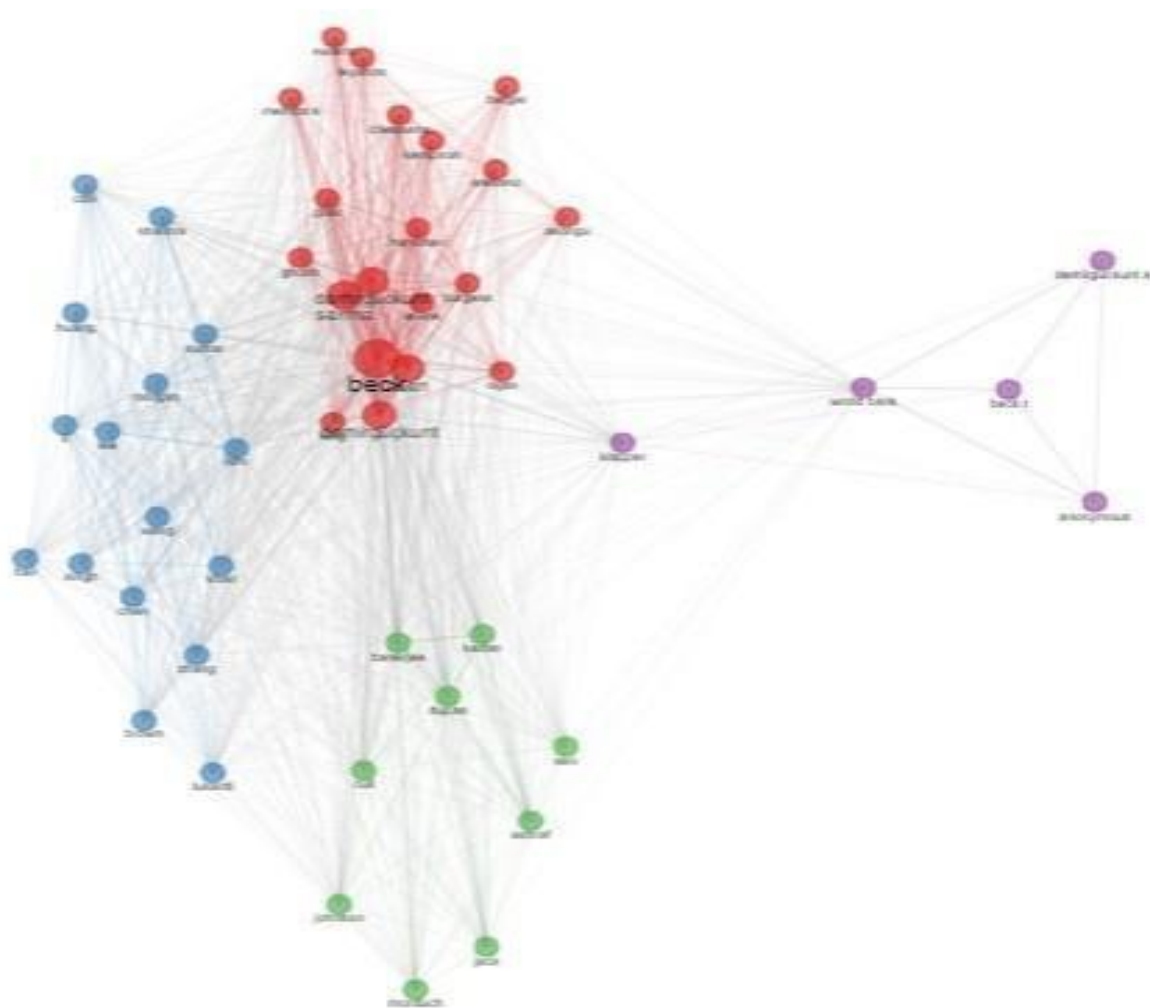
**Table 4: Most cited documents worldwide**

Paper	DOI	Total Citations
Allen F, 2016, j Financ Intermediation	10.1016/j.jfi.2015.12.003	244
Ozili Pk, 2018, Borsa Istanb Rev	10.1016/j.bir.2017.12.003	191
Demirgüç-Kunt A, 2013, Brookings Pap Econ	Act 10.1353/eca.2013.0002	183
Zins A, 2016, Rev Dev Financ	10.1016/j.rdf.2016.05.001	164
Gabor D, 2017, New Polit Econ	10.1080/13563467.2017.1259298	164
Kim Dw, 2018, Res Int Bus Financ	10.1016/j.ribaf.2017.07.178	148
Polasik M, 2016, Int j Electron Commer	10.1080/10864415.2016.1061413	145
Swamy V, 2014, World Dev	10.1016/j.worlddev.2013.10.019	139
Fungáčová Z, 2015, China Econ Rev	10.1016/j.chieco.2014.12.004	132
Klapper L, 2013, j Bank Financ	10.1016/j.jbankfin.2013.07.014	131

The top 10 with the most cited documents globally is presented in table 4, from which it can be seen that the 5 most relevant works are: Allen F, 2016, *J Financ Intermediation* with (244) citations, Ozili Pk, 2018, *Borsa Istanbul Rev* with (191), Demirgüç-Kunt A, 2013, *Brookings Pap Econ Act* with (183), Zins A, 2016, *Rev Dev Financ* with (164) and Gabor D, 2017, *New Polit Econ* with (164). Financial inclusion, defined as the use of formal accounts, can bring many benefits to people. However, we know very little about the factors behind it. This paper explores the individual and country characteristics associated with financial inclusion and the policies that are effective among those most likely to be excluded: poor, rural, women, or youth. In general, we find that greater financial inclusion is associated with lower account costs, closer proximity to financial intermediaries, stronger legal rights, and more stable political environments. However, the effectiveness of policies to promote inclusion varies according to the characteristics of the individuals considered. (Allen, Demirguc-Kunt, & Klapper, 2016)

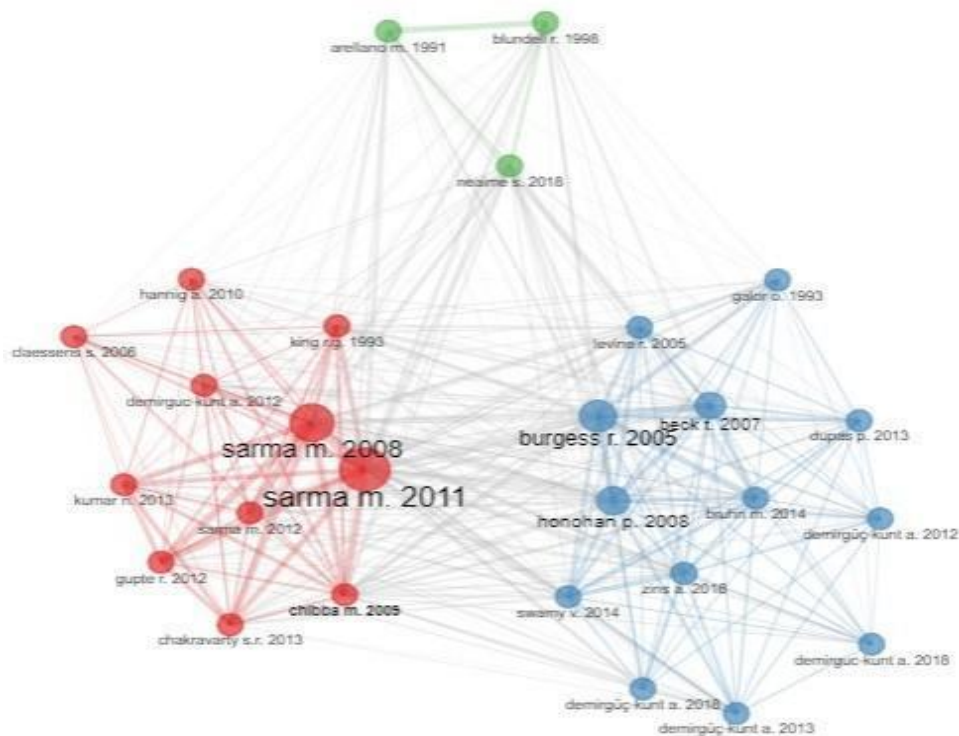
### Co-citation analysis

Figure 9: Authors



In figure 9, it can be seen in the co-citation map, which is made up of four groups, the red one is made up of 20 researchers, of which the most relevant are: Beck, Demirgüçkunt, Sarma, Demirguckunt and Allen; the blue one is made up of 16 authors, of which Lusardi, Kim, Kumar, Khan and Chen stand out; the most representative of the green color are Banerjee, Karlan, Dupas and Cull, and finally the purple group is made up of the authors, Klapper, Beck and Demirguckunt. Each of these clusters represents a similarity in a line of research by the authors, which will serve as a guide to identify the researchers who most influence our field thematic area.

**Figure 10: Documents**



The co-citation network between documents in figure 10 shows 3 clusters with a strong thematic similarity, where the following works can be highlighted from the red group: Sarma M. 2011, Sarma M. 2008, Demirguckunt A. 2012, Chibba M. 2009 and King R.G. 1993; of the blue cluster stand out, Burgess R. 2005, Honohan P. 2008 and Beck T. 2007 and to finish in the green cluster are the investigations of Blundell R. 1998, Neaime S. 2018 and Arellano M. 1991.

**Figure 11: Multidimensional Scaling (MDS) visualization technique based on job keywords**

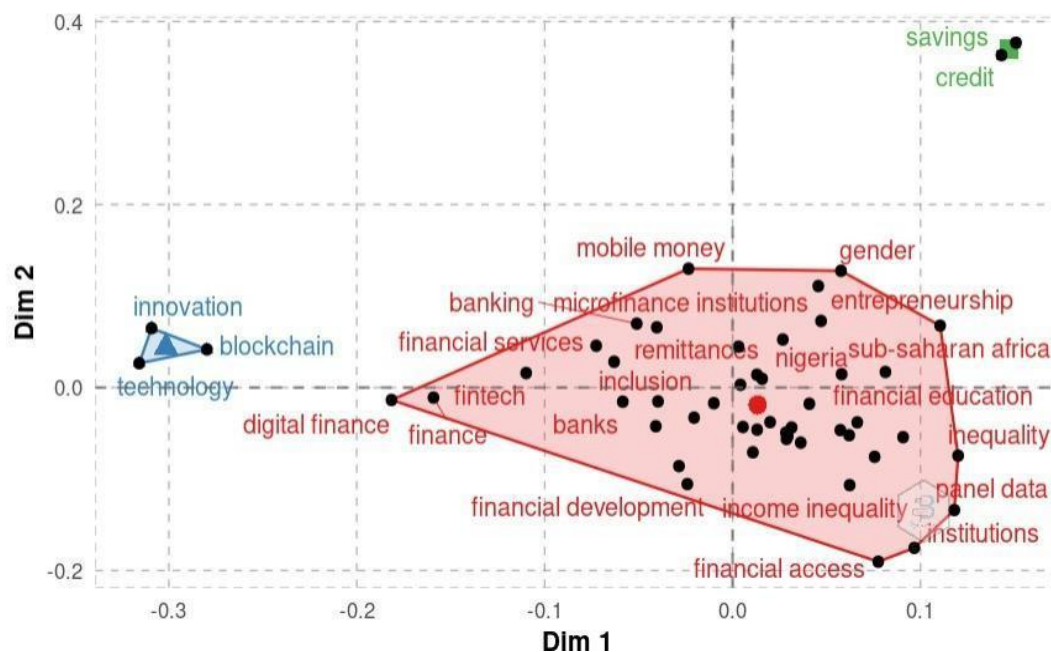


Figure 11 shows three thematic axes distributed as follows:

Cluster 1 (red color): It is a cluster that contains the largest number of concepts and therefore is the most semantically heterogeneous. In this sa they can identify topics on finances, financial education, and financial services.

Cluster 2 (Blue color): It is the cluster that focuses on innovation, technology, and electronic platform. Cluster 3 (Green color): It is the smallest cluster, and its thematic axis is oriented to credit and savings.

#### 4. Conclusions

As a first conclusion, it can be affirmed regarding the analysis of the author's keywords and the research topic "Financial inclusion at the international level", that there is a strong relationship because in 39% of the documents analyzed is the base term, "financial inclusion" The annual scientific production for Colombia from the period 2008 to 2022 in the field of study has been low, unlike the international part that for the period from 2004 to 2022 shows an upward trend, which indicates that It is a very explored topic in other latitudes of the world. In general, it is evident that the most productive country in this subject is India with 483 contributions, the magazine that has the most impact in Colombia is Social indicators research with an H index of 2 and at the international level World development with an H index of 12, the Makerere University institution Business School is one of the most important in the world with 33 publications and finally the authors with the greatest impact for Colombia and internationally are: Almeyda G. and Munene J., respectively.

## References:

- Abedifar, P., Ebrahim, S. M., Molyneux, P., & Tarazi, A. (2015). Islamic banking and finance: recent empirical literature and directions for future research. *Journal of Economic Surveys*, 29(4), 637–670. doi:10.1111/joes.12113
- Abor, J. Y., Amidu, M., & Issahaku, H. (2018). Mobile Telephony, Financial Inclusion and Inclusive Growth. *Journal of African Business*, 19(3), 430–453. doi:10.1080/15228916.2017.1419332
- Ahamed, M. M., & Mallick, S. K. (2017). Is financial inclusion good for bank stability? International evidence. *Journal of Economic Behavior & Organization*. doi:10.1016/j.jebo.2017.07.027
- Allen, F., Carletti, E., Cull, R., Qian, J. Q., Senbet, L., & Valenzuela, P. (2014). The African Financial Development and Financial Inclusion Gaps. *Journal of African Economies*, 23(5), 614–642. doi:10.1093/jae/eju015
- Allen, F., Demirguc-Kunt, A., Klapper, L. y Martínez Peria, MS (2016). Los fundamentos de la inclusión financiera: comprensión de la propiedad y el uso de cuentas formales. *Revista de Intermediación Financiera*, 27, 1–30. doi:10.1016/j.jfi.2015.12.003
- Anaya Narváez, A. R., & Romero Álvarez, Y. P. (2018). Financial inclusion in Sincelejo (Colombia). A Probit econometric model. *Ecos De Economía: A Latin American Journal of Applied Economics*, 22(46), 91–110. <https://doi.org/10.17230/ecos.2018.46.4>
- Anzoategui, D., Demirgüç-Kunt, A., & Martínez Pería, M. S. (2014). Remittances and Financial Inclusion:
- Azevedo, V., Figal Garone, L., Maffioli, A., & Olarte Rodriguez, L. (2021). Credit cards issued by non-financial companies: an alternative tool for financial inclusion and economic development? *Journal of Development Effectiveness*, 13(1), 47–83. doi:10.1080/19439342.2021.1874481
- Bartel, R. C. (2020). Financializing the soul: Christian microfinance and economic missionization in Colombia. *Critical Research on Religion*, 9(1), 31–47. doi:10.1177/2050303220952861
- Bauchet, J., Damon, A., & Larsen, V. (2017). Microfinance bundling and consumer protection: experimental evidence from Colombia. *Journal of Development Effectiveness*, 9(4), 443–461. doi:10.1080/19439342.2017.1363802
- Business Horizons*, 60(6), 865–874. doi:10.1016/j.bushor.2017.07.012
- Cardona Ruiz, D. E., Hoyos, M. C., & Saavedra-Caballero, F. (2018). Gender and financial inclusion in Colombia. *Ecos De Economía: A Latin American Journal of Applied Economics*, 22(46), 60–90. <https://doi.org/10.17230/ecos.2018.46.3>
- Chakravarty, S. R., & Pal, R. (2013). Financial inclusion in India: An axiomatic approach. *Journal* 371 <http://www.webology.org>

of Policy Modeling, 35(5), 813–837. doi:10.1016/j.jpolmod.2012.12.007

Chauvet, L., & Jacolin, L. (2017). Financial Inclusion, Bank Concentration, and Firm Performance. *World Development*, 97, 1–13. doi:10.1016/j.worlddev.2017.03.018

Chen, Y., & Bellavitis, C. (2020). Blockchain disruption and decentralized finance: The rise of decentralized business models. *Journal of Business Venturing Insights*, 13, e00151. doi:10.1016/j.jbvi.2019.e00151

Cobb, J. A., Wry, T., & Zhao, E. Y. (2016). Funding Financial Inclusion: Institutional Logics and the Contextual Contingency of Funding for Microfinance Organizations. *Academy of Management Journal*, 59(6), 2103–2131. doi:10.5465/amj.2015.0715

Cross country evidence. *World Development*, 111, 84–96. doi:10.1016/j.worlddev.2018.06.020

De Jong, G., Fajardo Rojas, M. A., & Almeyda, G. (2019). Grounding participatory action research in rural Colombia: a demonstration study on youth financial inclusion. *International Journal of Lifelong Education*, 1–14. doi:10.1080/02601370.2019.1579262

Demirgüç-Kunt, A., & Klapper, L. (2013). Measuring Financial Inclusion: Explaining Variation in Use of Financial Services across and within Countries. *Brookings Papers on Economic Activity*, 2013(1), 279–340. doi:10.1353/eca.2013.0002

Diniz, E., Birochi, R., & Pozzebon, M. (2012). Triggers and barriers to financial inclusion: The use of ICT-based branchless banking in an Amazon county. *Electronic Commerce Research and Applications*, 11(5), 484–494. doi:10.1016/j.elerap.2011.07.006

Durango-Gutiérrez, M. P., Lara-Rubio, J., & Navarro-Galera, A. (2021). Analysis of default risk in microfinance institutions under the Basel III framework. *International Journal of Finance & Economics*. doi:10.1002/ijfe.2475

Evidence from Asia. *Finance Research Letters*, 101451. doi:10.1016/j.frl.2020.101451

Evidence from El Salvador. *World Development*, 54, 338–349. doi:10.1016/j.worlddev.2013.10.006

Farah, M. F., Hasni, M. J. S., & Abbas, A. K. (2018). Mobile-banking adoption: empirical evidence from the banking sector in Pakistan. *International Journal of Bank Marketing*. doi:10.1108/ijbm-10-2017-0215

Fungáčová, Z., & Weill, L. (2015). Understanding financial inclusion in China. *China Economic Review*, 34, 196–206. doi:10.1016/j.chieco.2014.12.004

Gabor, D., & Brooks, S. (2016). The digital revolution in financial inclusion: international development in the fintech era. *New Political Economy*, 22(4), 423–436. doi:10.1080/13563467.2017.1259298

Ghosh, S., & Vinod, D. (2017). What Constrains Financial Inclusion for Women? Evidence from  
372 <http://www.webology.org>



Indian Micro data. *World Development*, 92, 60–81. doi:10.1016/j.worlddev.2016.11.011

Gómez Gómez, R., Morales Zuluaga, E., & Castellanos Martínez, J. F. (2020). Inclusión financiera y productividad: el caso colombiano. *Revista mexicana de economía y finanzas*, 15(SPE), 537-549.

Gomez-Gonzalez, J. E., Castro-Pantoja, J. D., Díaz-Barreto, L. C., Mora-Arbeláez, T. A., & Rodriguez-Novoa, D. (2021). Bancarization and violent attacks from guerrilla and other illegal groups in Colombia. *Socio-Economic Planning Sciences*, 101084. doi:10.1016/j.seps.2021.101084

Granda, C., Hamann, F., & Tamayo, C. E. (2019). Credit and saving constraints in general equilibrium: A quantitative exploration. *Journal of Development Economics*. doi:10.1016/j.jdeveco.2019.06.007

Grohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion?

Hassan, M. K., & Aliyu, S. (2018). A contemporary survey of islamic banking literature. *Journal of Financial Stability*, 34, 12–43. doi:10.1016/j.jfs.2017.11.006

*Intangible Capital*, 13(3), 582. doi:10.3926/ic.946

*Journal of Development Studies*, 48(5), 589–604. doi:10.1080/00220388.2011.621944

Karakurum-Ozdemir, K., Kokkizil, M., & Uysal, G. (2018). Financial Literacy in Developing Countries.

Kim, D.-W., Yu, J.-S., & Hassan, M. K. (2018). Financial inclusion and economic growth in OIC countries.

Kim, J.-H. (2015). A Study on the Effect of Financial Inclusion on the Relationship Between Income Inequality and Economic Growth. *Emerging Markets Finance and Trade*, 52(2), 498–512. doi:10.1080/1540496x.2016.1110467

Klapper, L., Lusardi, A., & Panos, G. A. (2013). Financial literacy and its consequences: Evidence from Russia during the financial crisis. *Journal of Banking & Finance*, 37(10), 3904–3923. doi:10.1016/j.jbankfin.2013.07.014

Larios-Hernández, G. J. (2017). Blockchain entrepreneurship opportunity in the practices of the unbanked.

Le, T.-H., Le, H.-C., & Taghizadeh-Hesary, F. (2020). Does Financial Inclusion impact CO2 Emissions?

Leong, C., Tan, B., Xiao, X., Tan, F. T. C., & Sun, Y. (2017). Nurturing a FinTech ecosystem: The case of a youth microloan startup in China. *International Journal of Information Management*, 37(2), 92–97. doi:10.1016/j.ijinfomgt.2016.11.006

López-Puentes, A. K., Córdoba-Polania, L. Ángel, & Vargas-Prieto, A. (2019). Efectos de la inclusión financiera en el desarrollo humano del departamento del Huila-Colombia. *Clío América*,

13(26), 340–349. <https://doi.org/10.21676/23897848.3576>

Mariscal, J., & Renteria, C. (2012). Implementation of information and communications technologies for financial inclusion in programs to alleviate poverty in Brazil, Colombia and Mexico. *ResearchGate*, 2-32.

Martínez, L., Valencia, I., & Trofimoff, V. (2020). Subjective wellbeing and mental health during the COVID-19 pandemic: Data from three population groups in Colombia. *Data in Brief*, 32, 106287. doi:10.1016/j.dib.2020.106287

Maurer, B. (2012). *Mobile Money: Communication, Consumption and Change in the Payments Space*.

Munyegera, G. K., & Matsumoto, T. (2016). Mobile Money, Remittances, and Household Welfare: Panel Evidence from Rural Uganda. *World Development*, 79, 127–137. doi:10.1016/j.worlddev.2015.11.006

Mushtaq, R., & Bruneau, C. (2019). Microfinance, financial inclusion and ICT: Implications for poverty and inequality. *Technology in Society*, 101154. doi:10.1016/j.techsoc.2019.101154

Neaime, S., & Gaysset, I. (2018). Financial inclusion and stability in MENA: Evidence from poverty and inequality. *Finance Research Letters*, 24, 230–237. doi:10.1016/j.frl.2017.09.007

Okello Candiya Bongomin, G., Ntayi, J. M., Munene, J. C., & Malinga, C. A. (2018). Mobile Money and Financial Inclusion in Sub-Saharan Africa: the Moderating Role of Social Networks. *Journal of African Business*, 19(3), 361–384. doi:10.1080/15228916.2017.1416214

Orazi, S., Martinez, L. B., & Vigier, H. P. (2019). La inclusión financiera en América Latina y Europa. *Ensayos de Economía*, 29(55), 181-204.

Ouma, S. A., Odongo, T. M., & Were, M. (2017). Mobile financial services and financial inclusion: Is it a boon for savings mobilization? *Review of Development Finance*, 7(1), 29–35. doi:10.1016/j.rdf.2017.01.001

Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*. doi:10.1016/j.bir.2017.12.003

Pérez-Vásquez, M. A., Prieto-Baldovino, F. (2019). Determinación del impacto socioeconómico de las políticas de inclusión financiera en el municipio de montería. *Clío América*, 13 (26) , 350 – 361. doi: 10.21676/23897848.3577

Polasik, M., Piotrowska, A. I., Wisniewski, T. P., Kotkowski, R., & Lightfoot, G. (2015). Price Fluctuations and the Use of Bitcoin: An Empirical Inquiry. *International Journal of Electronic Commerce*, 20(1), 9–49. doi:10.1080/10864415.2016.1061413

Polloni-Silva, E., da Costa, N., Morales, H. F., & Sacomano Neto, M. (2021). Does Financial Inclusion Diminish Poverty and Inequality? A Panel Data Analysis for Latin American Countries. *Social Indicators Research*. doi:10.1007/s11205-021-02730-7

Ramírez-Virviescas, N., & Guevara, D. A. (2021). Rural Microfinance in Colombia and Financialization Process: A Case Study. *Apuntes del Cenes*, 40(71). <https://doi.org/10.19053/01203053.v40.n71.2021.11466>

*Research in International Business and Finance*, 43, 1–14. doi:10.1016/j.ribaf.2017.07.178

Romero-Álvarez, Y., Niebles-Núñez, W., & Niebles-Núñez, L. (2020). La inclusión financiera analizada desde una técnica de reducción de dimensiones. *Desarrollo gerencial*, 12(1), 1-17.

Sharma, D. (2016). Nexus between financial inclusion and economic growth. *Journal of Financial Economic Policy*, 8(1), 13–36. doi:10.1108/jfep-01-2015-0004

*Social Indicators Research*. doi:10.1007/s11205-018-1952-x

Solo, T. M. (2008). Financial exclusion in Latin America — or the social costs of not banking the urban poor. *Environment and Urbanization*, 20(1), 47–66. doi:10.1177/0956247808089148

Swamy, V. (2014). Financial Inclusion, Gender Dimension, and Economic Impact on Poor Households.

Thoene, U., & Turriago-Hoyos, Á. (2017). Financial inclusion in Colombia: A scoping literature review.

Urrea, M. A., & Maldonado, J. H. (2011). Vulnerability and risk management: the importance of financial inclusion for beneficiaries of conditional transfers in Colombia. *Canadian Journal of Development Studies/Revue Canadienne D'études Du Développement*, 32(4), 381–398. doi:10.1080/02255189.2011.647442

Van Klyton, A., Tavera-Mesías, J. F., & Castaño-Muñoz, W. (2020). Innovation resistance and mobile banking in rural Colombia. *Journal of Rural Studies*. doi:10.1016/j.jrurstud.2020.10.035

Zins, A., & Weill, L. (2016). The determinants of financial inclusion in Africa. *Review of Development Finance*, 6(1), 46–57. doi:10.1016/j.rdf.2016.05.001

*World Development*, 56, 1–15. doi:10.1016/j.worlddev.2013.10.019

Zins, A., & Weill, L. (2016). The determinants of financial inclusion in Africa. *Review of Development Finance*, 6(1), 46–57. doi:10.1016/j.rdf.2016.05.001.