Scientific Annals of Economics and Business
71 (2), 2024, 221-240
DOI: 10.47743/saeb-2024-0013

The Importance of Social Capital in Promoting Financial Inclusion: An International Perspective

Lilianne Isabel Pavón Cuéllar*

Abstract: This paper quantitatively explores the significance of social capital in enhancing international financial inclusion, with a specific focus on its usage dimension, represented by formal credit coverage. Through panel FGLS (Feasible Generalized Least Squares) and PCSE (Panel Corrected Standard Errors) analysis of a sample comprised of 24 countries for the period 2006 – 2021 and utilizing data obtained from diverse sources, it demonstrates that a country's credit coverage is influenced by both informal and formal social capital while controlling by factors such as access channels to financial products, measures to address asymmetric information and educational levels. The results underscore that, while financial inclusion is promoted through internationally accepted standards, its effectiveness is closely intertwined with the social context of implementation. Furthermore, formal institutions play a crucial role in shaping financial inclusion by fostering innovation, entrepreneurship, and technological advancement, while attitudes to risk and planning time horizons also significantly impact this dynamic. Notably, nations embracing a pragmatic outlook tend to have more viable access to bank loans, whereas risk aversion impedes economic actors´ propensity to engage in credit agreements, even when accessible.

Keywords: financial inclusion; social capital.

JEL classification: G18, G20, O43.

* Universidad Anáhuac México Norte: Huixquilucan, Estado de México, MX; e-mail: *lpavon@anahuac.mx*.

Article history: Received 20 June 2023 | Accepted 23 May 2024 | Published online 15 June 2024

To cite this article: Pavón Cuéllar, L. I. (2024). The Importance of Social Capital in Promoting Financial Inclusion: An International Perspective. *Scientific Annals of Economics and Business*, 71(2), 221-240. https://doi.org/10.47743/saeb-2024-0013.

1. INTRODUCTION

The importance of savings and the role of financial intermediation in channeling them to productive investment through credit have been studied for more than a century by authors such as Bagehot (1873), Hicks (1969), Goldsmith (1969), McKinnon (1973) and Shaw (1973), among others. However, it is not until the appearance of endogenous growth models (Sala-i-Martin, 2006) that financial development stands out in the economic literature, gradually discovering, thanks to advances in available quantitative methods, the endogenous and asymmetrical nature of its effects (Stiglitz and Weiss, 1981).

The Great Recession of 2007 limited the benefits imputed to the financial system, suggesting that its relationship with economic activity resembles a Gompertz's curve, with a great initial impact derived from the lower liquidity restrictions and its boost to investment and formality, to then decline and even subtract resources from other sectors. This *financial excess* could even generate over-indebtedness and eventually lead to a financial crisis, which Minsky (1982) considers an endogenous product of economic growth.

The diminishing returns attributed to financial intermediation, a product of the securitization and gradual financialization of the economy, suggest replacing the traditional indicators of deepening, such as those of monetary aggregates or credit as a percentage of gross domestic product (GDP), with others that contemplate the access and use of these services. The current conditions of global inequality, environmental deterioration, and the ambivalent role of technological progress in the working market feed the theoretical framework of sustainable growth, where combating these phenomena is no longer just an objective, but an input (Rodrik, 2018).

This concern for financial development is not recent (Mosley and Hulme, 1998), although the term financial inclusion did not appear until 2003, when Kofi Annan, former United Nations Secretary-General, used it in a speech on December 29th. Financial inclusion is currently considered a source of growth and social inclusion, promoting seven of the seventeen Sustainable Development Goals (SDGs) framed in the Millennium Goals. These emphasize their universal character and the importance of the means, such as the mobilization of financial resources, the development of capacities and technology, data, and the institutions to achieve them (UN, 2015). Financial inclusion implies the access, intensity, and regular use, by all segments of society, of a wide range of affordable, timely, and adequate financial services, in a context of competition, transparency, and financial education, to promote the well-being of its users and systemic stability, thus contributing to sustainable economic development that promotes economic and social inclusion (Pavón Cuéllar, 2021; Saha and Dutta, 2023).

Initiatives to achieve financial inclusion can hardly be separated from the institutional context in which they are implemented. How does the social capital of a country impact its financial inclusion? How much attention should the analyst pay to cultural traits and national economic institutions? Which cultural and institutional quality dimensions are most relevant to achieving greater financial product access and utilization?

This work aims to clarify these questions by analyzing the importance of a country's social capital in financial inclusion, both in its cultural and institutional dimensions, controlling the other factors that affect it, and building a model that allows for statistical verification of this relationship.

The hypothesis to test is:

***H₀**: National financial inclusion in its use dimension, represented by access to financing, depends on the determinants of consumption and savings, the channels of access to these services, the palliatives to the problems of asymmetric information necessary to provide financing at an accessible cost, but also on cultural traits and institutional quality, which affect the above elements and the attractiveness of using formal credit.*

Another dimension of financial inclusion is access through a bank account, which allows individuals and companies to better manage their income and expenses and provides a gateway to other sophisticated financial products and services. However, it was decided not to use this indicator in this work, since in some countries access to banking is mandatory, and in others, its use may be minimal and its effects as a palliative to the liquidity restrictions of its users are barely marginal. Financial inclusion acquires greater relevance in the economic sphere, when the different agents delve into the use of these products (contracting a loan or insurance, factoring or financial leasing, among others).

The work is structured as follows. In Section 1, financial inclusion, and its relevance in the framework of sustainable growth were presented, to continue in Section 2 with a synthesis of the literature on savings and credit, as well as social capital in its two dimensions, culture, and institutions. Then, Section 3 includes the construction of the model based on this theoretical review, as well as the research methodology used, to end with a brief description of the data and estimates. The results are analyzed and discussed in Section 4, to finally close with the conclusions in Section 5.

2. THEORETICAL FRAMEWORK

2.1 Consumption, Savings, Credit, and Financial Inclusion

In this section, a brief review of the theoretical framework on consumption, savings, and credit decisions is presented from a microeconomic perspective, to later delve into the macroeconomic sphere, financial depth and inclusion, and its determinants, particularly the institutional framework.

Before the twenties of the last century, saving was the key to economic dynamism, by providing funds for investment, although Keynes (1936) showed through his Paradox of Thrift that it could constitute, at least in the short term, an effective demand leak, as in the Great Depression. In the 1940s, facts claimed its growth-promoting role (Kuznets *et al.*, 1946) and, since then, the literature around savings and credit has had a higher relevance.

The studies of the Permanent Income Hypothesis (Friedman, 1957) and the Life Cycle (Modigliani and Brumberg, 1954) are the fundamental theoretical references to understanding savings and credit. These authors explain that consumption and savings depend mainly on disposable income, but also on permanent income and current and expected wealth, which smooth the path of consumption over time. Likewise, savings can be channeled into productive investment and stimulate economic activity through adequate financial intermediation (Kashyap *et al.*, 1993). However, these relationships are currently more unstable, reducing the explanatory power of traditional models and suggesting further investigation.

Gradually, the conventional indicators of financial depth are replaced by inclusion variables, which consider coverage rather than the importance of the sector, which is essential

for achieving sustainable and inclusive growth. Likewise, the literature broadens the range of its determinants based on recent facts:

There are inertial or persistent factors in the behavior of all savings and credit indicators at the national level (Roa *et al.*, 2014).

It is feasible that, in the ascending part of the economic cycle in environments with high interest rates, companies and families choose to acquire external sources of financing, such as bank credit, which is contrary to what would happen in times of price stability (Ozcan *et al.*, 2003).

Currently, not only actual and expected income but also its volatility is relevant. Getting into the use of financial products requires meeting requirements, providing guarantees, and acquiring medium- and long-term commitments, which are difficult for some potential users to fulfill. This situation is aggravated because credit bureaus, which seek to alleviate information problems to reduce the risk of adverse selection and moral hazard, do not include everyone. As a result, there are profound differences in the access and cost of financing. Financial exclusion is an inevitable consequence for some population segments (youth, women, inactive and rural) and productive agents (micro, small and young companies), which tends to be magnified as the sources of income become precarious and the labor market becomes flexible, preventing them from settling down and manage risks, long-term goals, and unforeseen events (Demirgüç-Kunt *et al.*, 2018).

Regarding human capital, its importance goes beyond formal education. Financial education, training, and technological readiness are positioned as essential elements for responsible access and use of unconventional financial products (Sarma, 2008).

The same financial inclusion policies give rise to distinct results depending on the country where they are applied (Pavón Cuéllar, 2021).

What is behind these stylized facts?

The relationships between coverage or financial deepening, and their determinants, are generally bidirectional, which explains their inertial behavior. Thus, for example, there is a multiplicative effect derived from the real interest rate, which grows as it increases, since it multiplies both savings and debts. Likewise, the infrastructure for access to financial services induces greater financial inclusion and at the same time promotes the creation of better access channels, although at a decreasing rate (Roa *et al.*, 2014). The bidirectional effect of human capital on financial inclusion or financial deepening is also evident (Holzmann, 2011).

A complementary explanation of great relevance, although it has been little explored, has to do with the barriers and inducers to the use of financial products linked to the environment. Within the financial system itself, its competition and regulation, user protection policies, the requirement of guarantees and documentation, as well as other intermediation costs, stand out. But there are also factors outside the financial sphere that determine inclusion, such as cultural traits, informality, and governance, among others. These institutional aspects are discussed in greater depth in the following section.

2.2 The Role of Institutions

The variables mentioned at the end of the previous section show the importance of social capital, made up of formal and informal institutions, always recognized in the theoretical field of economics, but little studied in the field of financial inclusion.

Classical jurists already highlighted its relevance and established that depending on the quality of the *social game*, its operation, participants, financing, and reward or punishment, certain individual and collective behaviors would be encouraged. Similarly, the Romans understood that the strength of people was found in the quality of their institutions and one of their main legacies to Western civilization was undoubtedly the law, understood as the formal institutional system. Smith (1776) also emphasized the importance of institutions in economic exchange.

Institutions, defined by North (1990) as the restrictions designed by human beings that shape the interaction between individuals, constitute mechanisms of social reproduction that operate through the internalization of the norms that guide specific behaviors (Enriquez, 1979). They are regulations that arise by consensus and that enjoy legitimacy even in an informal way, a regularized interaction pattern that is known, practiced, and accepted (even if it is not approved) by actors who expect to continue to interact under the sanctioned and sustained rules of that pattern (O'Donnell, 1997).

Institutions reflect the culture of a society and define the rules of the game: formal (institutions) and more informal conventions (cultural traits) that are translated into values and implicit codes of conduct, as well as the application characteristics of both. These are transmitted to individuals throughout their lives and change at a relatively slow rate (Becker, 1998; Hall and Jones, 1999). Each country has its own historical, religious, and cultural background, which affects and is affected by the environment. This feedback process is defined differently depending on whether it is an economic, political, or cultural approach. Economic theories hold that institutions are created and empowered when it is efficient to do so (Demsetz, 1967); political theories focus on redistribution rather than efficiency and sustain that those in power shape institutions to stay there (North, 1990; Olson, 1993); in cultural theories, societies hold beliefs that govern the creation and maintenance of formal institutions (Putnam, 1993; Landes, 1998).

In the next chapter, the two dimensions of social capital, cultural traits, and institutions, are analyzed in greater detail from a primarily economic perspective.

2.2.1 Cultural Traits

National cultural traits can be defined as an interactive set of characteristics that are common to the population of a country (Hofstede *et al.*, 2010) that shape the cognitive schemes of an individual, programming behavioral patterns that are consistent with their cultural context. It is made up of people who share attitudes, values, and beliefs, in such a way that they simultaneously belong to national, ethnic, professional, and organizational cultures.

Although defining a national culture may be questionable since there may be more than one in a country, especially in the global context and with the advance in telecommunications, at the same time globalization induces a growing interaction that alters cultures and makes it difficult to isolate cultural subgroups within a country. Thus, each one acquires its own identity derived from its cultural fusion, so considering a national culture is acceptable or, at least, the most viable (Pavón Cuéllar, 2015).

At the same time, these cultural changes tend to occur over a relatively long time. As Becker (1998) states, individuals have less control over their culture than over other forms of social capital. They cannot alter their ethnicity or family history, and only with difficulty can they change their country or religion. Thus, attitudes, values, and beliefs, both individual and

group, change very slowly. This persistence justifies considering, in our study period, national cultural traits as constant and exogenous, as they are the product of their history.

Instead, as considered in this study, formal institutions vary and because social conventions persist or adapt slowly and inertially to transformations in formal institutions, discrepancies may arise between both components of the institutional structure. Therefore, even if the different societies imitate the institutions of others, the existing variations in the informal rules can explain to a large extent why the establishment of quality regulations affects each country differently (Van *et al.*, 2022). Both are included in this work.

2.2.2 The Institutions

As already mentioned, institutions reflect the culture of a society and define the rules of the game. From an economic perspective, institutions are necessary for the proper functioning of the markets. On the one hand, scarcity forces us to specify them: in a world where needs exceed available resources, if there were no contractual and property rights, the exchange would take place through violence and the law of the strongest.

Additionally, market failures such as externalities, public goods, or information problems (uncertainty and asymmetric information), can lead to incomplete or non-existent markets, with an economically inefficient result. Institutions try to remedy these failures by reducing problems and information costs, as well as providing decision rules for different situations. "Economic agents, confronted with the limitations of individual rational behavior, create institutions that, by generating new incentives or imposing new restrictions, allow them to transcend those limitations" (Bates, 1995).

Finally, we need to remember that markets, even when they are efficient, do not necessarily produce a fair distribution of income. A market economy generates an unacceptably high level of inequality since income depends on accidental factors such as inheritance, luck, or natural abilities, among others, and because the production of goods follows monetary votes and not the greatest needs, institutions also intervene in this area (Samuelson and Nordhaus, 2010).

Endogenous growth models have driven the literature on social capital and its impact on economic activity since the mid-1990s. Authors such as Borner *et al.* (1995) or Keefer and Knack (1998), incorporate the factors listed by Barro (1996) as conditions for convergence between countries, linked to the institutional framework (protection of property rights, rule of law, bureaucracy, honest government, and delimitation of executive power).

This New Institutional Economics (NIE) also emphasizes the bidirectional nature of the relationship between institutional quality and economic variables, noting that not only social infrastructure affects economic activity, but it is also clear that rich economies can afford and choose better institutions (Hodgson, 2006). The success of different national economic initiatives then appears to be a result, not only of the capacity of their individuals but also of their capacity for collective action.

Now, measuring this institutional quality is not an easy task, since it is a broad concept that encompasses the law, individual rights, regulation, and government services. The concept of institutional quality arises from the English word *governance* which, according to the Cambridge Dictionary, means how organizations or countries are administered at a higher level. It represents better design, implementation, effectiveness, supervision, and continuous improvement of the policies and *rules of the game* that govern a country.

Rodrik (2007) distinguishes five types of institutions necessary for long-term sustainable economic development: the *market makers*, which protect property rights and guarantee that contracts are fulfilled; the regulatory ones; who seek macroeconomic stability; those that promote social security; and conflict managers. All of them allow, if they are appropriate, markets to function efficiently and with the degree of equity desired by the different governments, by mitigating market failures (imperfect competition, externalities, public goods, or information problems), while guaranteeing certain fundamental economic principles, being predictable and having adequate incentives.

What defines the quality of an institution? The World Bank points out that a quality institution fulfills two basic economic functions: reducing transaction costs by granting certainty and predictability to social interaction; and facilitating coordination between economic agents (World Bank, 2023). To achieve this, it must have some attributes (Alonso and Garcimartín, 2013), the main ones being static efficiency (being compatible with incentives that promote behaviors with lower social costs); legitimacy (being able to define credible contracts intertemporally); security (reducing transaction costs derived from the uncertainty associated with human interaction) and, finally, dynamic efficiency (adaptability and anticipation of social changes or, at least, the existence of incentives that facilitate the adjustment of agents to these changes).

These institutions affect all types of economic activity and constitute an important palliative to market failures and the achievement of a more equitable, environmentally friendly, and stable economy. Its role is particularly relevant in the financial field due to the systemic impact and the asymmetries in the information that characterize this sector. The next step is to determine which elements of the institutional framework have the greatest weight in financial inclusion, through an econometric analysis that statistically validates their influence.

3. RESEARCH METHOD

3.1 The Model

After analyzing the theoretical framework, this section builds the model that tests the importance of the elements mentioned for financial inclusion and the nature of their interrelationship.

The first step is to define the dependent variable. The indicators most used in the literature are, for financial access, the number of savings accounts, and for the use of financial products, the commercial bank borrowers, both for a certain number of inhabitants. These indicators capture, although not fully, the financial inclusion that a depth indicator such as monetary aggregates or credit over GDP cannot, since financial resources tend to be concentrated in a few recipients.

The use of these variables is also justified by the lack of availability of more assertive international financial access indicators, due to the importance of commercial banking in the delivery of basic financial services and because these tend to be, at least for now, a prerequisite for access to more sophisticated products (Sarma, 2008). As already mentioned, opening a bank account is the entry route to the financial system, but access to credit is an indicator of a more comprehensive financial inclusion, which is why it is the indicator chosen in this study to represent financial inclusion.

It should be noted that, in recent years, although traditional banking services such as loans and deposits continue to be the majority, digital banking, and non-bank financial products have gained special relevance. This trend has become more evident since the pandemic, particularly for those services contracted and used through mobile phones, so today the latter is considered an important channel of financial access (World Bank, 2022; IMF, 2023).

Bank account ownership among the adult population continued to grow across all income groups. For example, the share of depositors increased from 44% to 50% in middle-income countries between 2019 and 2021, and that of borrowers also increased in middle-income countries, although it remained stable in low- and high-income countries. Overall, the use of deposit and loan services did not vary between 2020 and 2021, picking up in 2020 due to government income and transfer support policies adopted in response to the pandemic (OECD, 2021), before falling in 2021 because of the reversal of these policies.

Today, more than 70% of adults in the world have a financial account, but this figure hides severe inequalities: coverage is almost universal in terms of banking and more than a third in access to credit in Central Asia and Europe, while in Sub-Saharan Africa these figures do not even reach 25% and 5%, respectively (World Bank, 2023). In emerging countries, a large population and productive segment tend to finance their activities through their own or informal funds, either because they lack access to the formal system or because they have it but prefer not to use it. According to the latest aggregate figures available from the World Bank (World Bank, 2023), 47% of adults on the planet reported having requested a formal or informal loan in the last 12 months, 64% in high-income countries, and 44% in emerging countries.

The use of informal sources of financing derives from job insecurity and the fact that access to formal credit is difficult for some segments of the population (youth, women, inactive and rural) and the productive sector (small and youth businesses).

More recent figures from the Financial Access Survey (FAS) already show a clear trend toward financial digitization: the number of mobile money agents per 100,000 adults has almost doubled globally between 2019 and 2021, mainly in Africa and Asia. On the other hand, the number of commercial bank branches and ATMs per certain number of inhabitants, the two indicators of the 17 United Nations Sustainable Development Goals (SDGs), have decreased in recent years, partly due to banks' cost reduction efforts. In high-income countries, such as Europe, this decline reflects the rapid adoption of digital payments, while in low- and middle-income countries, the emergence of other retail alternatives such as branchless agent banking is growing rapidly, particularly in Latin America (IMF, 2023).

These figures highlight the importance of testing various infrastructure indicators for access to financial services in the model, in addition to the traditional coverage of bank branches that are falling into disuse. The empirical literature suggests that this is evaluated by the number of automated teller machines (ATMs) or, according to the most current trends, by subscriptions to mobile phones (cellphones) since ATMs lose relevance as financial digitization increases (IMF, 2023).

In addition to the access channels, the rest of the control variables must be included in the model, indicated in the literature as inducers or inhibitors of financial inclusion.

Use barriers derived from incomplete and asymmetric information, such as required documentation, guarantees or collateral, credit bureaus, interest rates, and spreads.

Quality and/or dynamism of the sources of income, such as those linked to the business environment, income, activity and inactivity, employment and unemployment, or job insecurity.

Human capital: education at different levels, training, financial education, and technological training

Once the main determinants of savings and access to financing have been identified according to the literature, the explanatory variable of interest is incorporated: social capital, which includes both national cultural traits and its institutions.

Regarding cultural traits, anthropology, sociology, history, and psychology can provide valuable elements to assess their impact on financial inclusion, since cultural differences could explain, for example, why what works for one country does not work for another (Hofstede *et al.*, 2010; Jaén *et al.*, 2013). This suggests an interdependence between culture and financial inclusion, so the next step is to obtain indicators of these common national traits internationally in a format that facilitates their quantitative processing.

According to the catalog of instruments to measure culture by Taras *et al.* (2010), more than 150 indicators were available in 2010. Among the intercultural papers, Hsu *et al.* (2013) highlight the research of Hofstede *et al.* (2010), Inglehart and Baker (2000), Steenkamp (2001), Schwartz (2012), and the Globe project (House *et al.*, 2004). Hofstede's model specifies and identifies more cultural dimensions, is validated by multiple international studies, follows the current theoretical framework, and includes a representative sample of countries. It is then chosen in this research.

Hofstede *et al.* (2010) define, through a factorial analysis, six main cultural dimensions, understood as traits measured in relative terms and being stable over time. Why? Because if something alters them, the event is usually global or at least continental, therefore, since it affects all countries, it maintains its relative positions intra and internationally unchanged, except in extreme cases, such as a war or a large-scale natural disaster.

These six dimensions can be summarized as follows:

1. Power distance: assesses the degree to which the weakest members of a society accept or expect the existence of differences in levels of power. A high score suggests a more hierarchical and generally more violent social structure; *2. Individualism:* measures the degree to which people integrate into groups and have a sense of belonging and loyalty to them. High individualism reflects weak social ties and self-sufficiency; *3. Masculinity:* calibrates the distribution of traditional gender emotional roles, with masculine societies being more assertive and competitive, with a greater gap between roles and a more marked search for material success. In more empathetic female cultures, there is a greater preference for consensus, equity, cooperation, and quality of life; *4. Uncertainty avoidance:* the social tendency to avoid risk and ambiguity. Risk-averse societies are more emotional and anxious, they reinforce their security through strict laws and absolute truths, so they are less tolerant and reflective; *5. Long-term orientation or pragmatism:* social valuation of long-term commitments, perseverance, and the ability to postpone satisfaction, in exchange for later gratification; and *6, Indulgence:* a degree of social complacency that, in contrast to the restriction, symbolizes freedom, the permissibility to satisfy the basic and natural human impulses, especially those related to the enjoyment of life and leisure.

Regarding formal social capital, the definition of institutional quality, its characteristics, and requirements already mentioned in the previous section have inspired analytical exploration and empirical work in search of its determinants, and form the theoretical support of various indicators of institutional quality, among which the Worldwide Governance Indicators (WGI) stand out, published by the World Bank (World Bank, 2023), a reliable

source of information, that collects opinions through various surveys, both in emerging and industrialized countries.

The World Governance indicators use more than 30 databases from a wide range of polling firms, expert groups, non-governmental organizations, international organizations, and private companies, reported for more than 200 countries for the period 1996 - 2021 (World Bank, 2023). They cover six dimensions of global governance and are published individually and in aggregate.

These dimensions evaluate the perceptions of those surveyed in the following fields: voice and responsibility (political representation and freedom of expression); political stability and absence of violence and/or terrorism; Government effectiveness (quality, credibility, and independence of public services and policy formulation and implementation); regulatory quality (formulation and implementation of sound regulations and policies that promote the development of the private sector); rule of law (confidence in the regulatory framework and its compliance) and the last, the control of corruption (to what extent public power is exercised for private benefit, includes minor and major forms of corruption, as well as institutional capture).

3.2 Empirical Data, Analysis, and Discussion of the Results

This section analyzes the impact of institutional quality on financial inclusion, controlling for other factors that the theoretical framework suggests as determinants and confirming whether they maintain a statistically significant relationship for the sample and period of analysis.

For choosing the variables, an exploration of the different available databases was necessary, grouping the indicators into categories and through a correlation and factorial analysis, excluding those that seemed to capture the same information.

The model is annual, for the period 2006-2021, corresponds to commercial banks and the sample includes 24 countries (Albania, Argentina, Bangladesh, Brazil, Cape Verde, Colombia, Croatia, Dominican Republic, Egypt, Arab Republic, Estonia, Ghana, Italy, Latvia, Malaysia, Namibia, Nigeria, Pakistan, Peru, Saudi Arabia, Singapore, Thailand, Turkey, Uruguay, and Zambia). Information sources are Hofstede (2001); Hofstede *et al.* (2010) (2001; 2010), World Bank (2023), The International Labor Organization (ILO, 2023), World Economic Forum (2020), The International Monetary Fund (IMF, 2023), and EIU (2022). Database integration forces multiple years and countries to be removed and to estimate some isolated missing data through a linear extrapolation (Scott Armstrong and Collopy, 1993).

The estimated model attempts to consider the following categories of variables:

$$Financial\ inclusion\ (use) = f(Infraest, Control, Culture, Inst) \quad (1)$$

where:

Financial inclusion (use): Commercial bank borrowers/thousand adults

Infraest: Bank branches; ATMs or mobile cellular phones subscriptions for a certain number of inhabitants or kilometers

Control: Other control variables that have being suggested in the literature as determinants of the explained variable (income or job quality; credit bureaus and the cost of financial products, among others).

Culture: Dimensions of Hofstede's cultural traits (power distance, masculinity, individualism, intolerance of uncertainty, pragmatism, and indulgence).

Inst.: Representative variables of institutional quality. The Global Governance Index and each of its dimensions are tested (voice and accountability; political stability and absence of violence/terrorism; government effectiveness; regulatory quality; rule of law and last, control of corruption).

The final estimated model is:

$$FinancialInclus_{it} = \alpha + \beta\ MobileCel_{it} + \gamma\ Bureau_{it} + \delta\ HumanCap_{it} + \eta\ RegQual_{it} + \theta\ Pragmatism_{it} + \lambda\ UncertAvoid_{it} + \epsilon_{it} \quad (2)$$

where:

FinancInclus: Borrowers from commercial banks are the reported number of resident customers that are nonfinancial corporations (public and private) and households that obtained loans from commercial banks and other banks functioning as commercial banks.

MobileCel: Mobile cellular phones subscriptions (per 100 people).

Bureau: The Depth of Credit Information Index measures rules affecting the scope, accessibility, and quality of credit information available through public or private credit registries. The index ranges from 0 to 80, with higher values indicating the availability of more credit information, from either a public registry or a private bureau, to facilitate lending decisions.

HumanCap: Labor force with basic education (percentage of total working-age population with basic education).

RegQual: The regulatory quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Worldwide Governance Indicators give the country's score in units of standard normal distribution, i.e., ranging from approximately -250 to 250.

Pragmatism: Long-term orientation country refers to the time horizon people in a society display. National scores range from 1 for the lowest to 100 for the highest.

UncertAvoid: Uncertainty avoidance reflects the degree to which a culture avoids risks and the uncertainty of the future. National scores range from 1 for the lowest to 100 for the highest.

$FinancInclus$ is the dependent variable and *MobileCel*, *Bureau*, *HumanCapm*, *RegQual*, *Pragmatism* and *UncertAvoid* are explanatory variables, i = 1…m is, in this case, the number of countries; t = 1…T is the number of years, α, β, γ, δ, η, θ, and λ are parameters and ϵ_{it} is a disturbance term, that can be correlated along time (t) or across countries (i).

4. RESULTS OF THE EMPIRICAL ANALYSIS AND DISCUSSION

The model was estimated using a panel FGLS (Feasible Generalized Least Squares) and PCSE (Panel Corrected Standard Errors) analysis, where first-order autocorrelation and heteroscedasticity were detected, due to the endogenous nature of some of the variables. The presentation of both models in Table no. 1 is done to verify the robustness of the results although, for the reasons detailed below, the second is the most appropriate.

Table no. 1 – Results of Panel Analysis

Variables	FGLS		PCSE	
	Coefficients	Standard Errors	Coefficients	Standard Errors
Dependent				
$FinancInclus_{it}$				
Explanatory				
$MobileCel_{it}$	0.489707 ***	0.093810	0.716295 ***	0.203620
$Bureau_{it}$	0.626276 ***	0.141080	0.820684 **	0.392536
$HumanCap_{it}$	1.138002 ***	0.275105	1.513683 **	0.610250
$RegQual_{it}$	0.663386 ***	0.076852	0.778361 ***	0.153732
$Pragmatism_i$	2.943305 ***	0.383050	5.516504 ***	0.748155
$UncerAvoid_i$	-2.173959 ***	0.257096	-3.009215 ***	0.786912
Coefficient of determination (R^2)			0.6637	
Wald Test				
Chi^2	708.48		229.77	
Prob>$Chibar^2$	0.0000		0.0000	
Breusch and Pagan LaGrange Multiplier Test				
$Chibar^2$	1864.49			
Prob>$Chibar^2$	0.0000			
Hausman Test				
$Chibar^2$	8.63			
Prob>$Chibar^2$	0.0710			
Observations	281		282	
Groups	24		23	

Note*:* Statistically significant at *10%, **5%, and ***1% levels.

Source: Own estimation with data from Hofstede (2001); Hofstede *et al.* (2010); IMF (2023); World Bank (2023).

FGLS fits linear models of panel data by using feasible generalized least squares. It allows estimation in the presence of AR (1) autocorrelation within the panels and cross-sectional correlation and heteroscedasticity between them. An Ordinary Least Squares (OLS) estimation is also carried out with Panel Corrected Standard Error (PCSE) using the Prais-Winsten equation since the disturbances are not independent and identically distributed, but heteroskedastic and correlated between countries (Roodman, 2009; Stata, 2019).

Thus, the endogeneity of the model variables is identified and corrected, but it cannot be studied, since the persistence of cultural traits prevents the use of dynamic models.

The two estimates presented in Table no. 1 pass the test for the non-existence of omitted and redundant variables, as well as for non-overidentification (LM, Wald's F, and Hansen's J tests, respectively). These tests were carried out due to the positive relationship between pragmatism, or long-term vision, and institutional quality, to rule out that any of them did not provide additional explanatory power to the model, controlling in turn for any multicollinearity that the temporal component of the database would not have corrected (Gujarati, 2003). It should be noted that there is also a weak negative relationship between this institutional quality and uncertainty avoidance.

The explanatory power of the model is also evaluated using the Wald test and, in the case of the PCSE estimation, by the coefficient of determination (R^2). Both indicate that the estimate is correct and that the indicators together explain the dependent variable. Likewise, the high

significance of each of the independent variables allows validation of the model in both estimations. The Akaike, Schwarz, and Hannan-Quinn information criteria tests yield the values of 10.63062, 10.72102, and 10.66687 for the model estimated using FGLS, and 10.66242, 10.75283 and 10.69868, respectively, in the PCSE estimation, that is, with a slightly better explanatory power in the case of the estimation by FGLS. However, the specialized literature suggests that if the number of years is not equal to or greater than the number of countries, as in this case, optimistic estimates of standard errors (SE) can be obtained if estimated using this method (Labra and Torrecillas, 2018). Thus, this research favors the PCSE methodology. However, presenting the results using both methods allows for verifying the robustness of the model, ensuring that the sign and significance of its independent variables are maintained, along with the explanatory power of the model in both cases.

When the effect of access infrastructure on credit coverage among the population is analyzed, the importance of bank branches and even ATMs decreases as that of mobile phones increases. As the recent literature on this topic points out (Lannquist and Tan, 2023), digital financial services – including those using mobile phones – are already operational in more than 80 countries, and in some cases have reached a considerable scale. As a result, millions of low-income clients, previously excluded, are gradually beginning to access formal financial services. In China, Kenya, India, and Thailand, more than 80% of the population is banked, thanks to various reforms, innovations, and efforts to promote the opening of low-cost accounts, including mobile and digital payments (World Bank, 2022).

Regarding barriers attributable to the financial sector, the variable that turned out to be highly significant was the one that represents the palliatives to asymmetric information: credit bureaus, consistent with what has been indicated in the literature (Beck *et al.*, 2007; Yang and Masron, 2024). This variable incorporates aspects related to the cost of credit, both in terms of the interest rate and the intermediation margin, moral hazard, and adverse selection, so that, as expected, the depth of information represented by these companies, has a positive and significant impact on access to credit and its use. Such inclusion, in turn, feeds them, further reducing information asymmetries (Hoffmann, 2001).

In the explanatory variables referring to human capital, including education and the labor market, it should be noted that employment, wages, and labor vulnerability were not significant in this case, perhaps because, in recent years, the sources of income and their quality seem to have an ambiguous effect on the use of financing, in an environment of more volatile interest rates. In times of economic boom, economic agents generally enjoy a better financial situation, have more attractive projects, and can commit to credit, but access to it does not guarantee its use, particularly when its cost is unpredictable. On the other hand, it is in the downward phase of the economic cycle, when agents require funds to offset liquidity restrictions, that access to credit is restricted (Wu and Wan, 2023). The paradox is then fulfilled: credit is usually available to those who need it least, and vice versa.

Education, in contrast, is a relevant component of human capital to achieve greater use of financial products (OECD, 2023), but only at a basic level, since additional years of study do not lead to their more meaningful utilization, at least as far as it refers to credit. Specific variables of financial education and technological readiness do not yet have enough cross-sectional and temporary observations to allow their evaluation.

Finally, initiatives to achieve greater financial inclusion cannot be separated from the social context in which they are implemented. Institutional quality, as well as the cultural traits that prevail in a nation, have a significant impact on its success or failure.

Institutional quality is highly significant in the model, demonstrating that it provides a virtuous circle, since it promotes innovation, entrepreneurship, and technological catch-up, through confidence not only in the future but also that the fruit of the effort can be harvested and that it will be done safely. This, in turn, allows higher quality institutions: access to funds and their effective allocation make it possible to build infrastructure that leads to improvements in productivity and that ends up creating better financial prospects (Levine and Zervos, 1998). Van *et al.* (2022) highlight the importance of the legal framework and the efficiency of contract execution, Saifurrahman and Kassim (2022) consider regulations regarding the disclosure of information essential, and Rajan and Zingales (2003) show that, in autocratic countries, the interests of the elite, public and/or private, are preserved, to the detriment of efficiency and financial development. The more power these groups have, the more obstacles there are to financial inclusion, because of lobbying and institutional capture, among other rent-seeking activities. This suggests that institutional reforms aimed at limiting the influence of lobbying, expanding suffrage in the political system, promoting compliance with the law and civil rights and liberties, eliminating bureaucratic processes, and improving institutional efficiency, are beneficial for financial inclusion (Girma and Shortland, 2008)

Regarding the more persistent informal social capital, the estimation made in this research highlights the importance of two national cultural traits linked to their attitude towards risk and the time horizon of their planning, which influence financial inclusion. Similar results have been found by authors such as Pavón Cuéllar (2019); Anyangwe *et al.* (2022); Zeqiraj *et al.* (2022); Bialowolski *et al.* (2023), among others.

The model shows that, in countries with a long-term or, in other words, pragmatic vision, contracting a bank loan is more feasible, as expected. Pragmatism, a characteristic of countries in the Far East, entails strategic thinking and dynamism that facilitate entrepreneurship and innovation (Yeganeh, 2013), which, together with the importance of honor in this culture, promote respect in social exchanges and business and, together with persistence, contribute to the achievement of objectives and the fulfillment of the acquired commitments, including financial ones (Hofstede *et al.*, 2010).

On the other hand, risk aversion reduces the willingness of economic agents to contract credit, even if they have access to it since it constitutes a bet on the future and entails risks. These countries are less prone to innovation and entrepreneurship, which inhibits competitiveness, and they feel more comfortable with control, which is reflected in a long-term scenario by a more voluminous, inefficient, and lower-quality legal framework, which prevents the free flow of new ideas and their implementation (Pavón Cuéllar, 2015). This is verified in this study and explains why even if quality institutions are established, these informal codes of conduct affect their interactions and their effect on financial inclusion.

5. CONCLUSIONS

This research demonstrates quantitatively the importance of the institutional environment in financial inclusion, both in its informal dimension: culture, and in its formal dimension, represented by regulatory quality, controlled by other factors.

Regarding the control variables, it is verified that financial inclusion, in its dimension of use, depends on the access channels to these products, the most relevant being the mobile phone, since bank branches and even ATMs have been losing relevance as digital banking gains. Also, as expected, credit bureaus are essential for accessing credit, since they make it

easier and less expensive by alleviating the problems of uncertainty and asymmetric information. Likewise, the educational level of the population is relevant, although it seems that this is limited to the basic level, perhaps because, as the literature points out, technological literacy and financial education are the specific dimensions of human capital that have the greatest impact on the inclusion, and not so much formal middle or higher studies. It should be noted that this appreciation has not been validated with the data used in this research, but rather only constitutes a possible interpretation based on the theoretical framework.

Concerning the variable of interest, social capital, evidence of its importance in achieving greater financial coverage is found, both in its informal and formal dimensions.

The significance of two cultural traits in the model, pragmatism, and risk aversion, coincides with the specialized financial literature and emphasizes that, although there are internationally accepted elements to promote financial inclusion that have been validated by the specialized literature, their effectiveness cannot be detached from the cultural environment where these measures are implemented. Uncertainty avoidance inhibits the willingness to contract a loan, while pragmatism induces it.

Likewise, the high explanatory power of formal social capital as a facilitator of financial inclusion, represented by institutions, shows that quality regulations are required for economic agents to take the step towards more intensive use of financial products. The ability of an independent and transparent government to formulate and implement quality regulations that promote efficiency, the rule of law, and social peace are sine qua non conditions for promoting social inclusion in general, and financial inclusion in all countries in the world. This result also shows that, in any financial inclusion strategy, a joint effort of all economic agents is necessary, beyond the financial sphere, with a common and long-term project.

Several obstacles prevent financial coverage, particularly in emerging countries, leaving a broad population and productive segment vulnerable to the liquidity restrictions imposed by being financially excluded, while in other segments a saturation of products of this type is detected. In addition to the ethical issues in terms of equity that this situation raises, unexploited business opportunities are also evident, since these unattended segments constitute a possible solution to the slowdown in financial dynamism and its decreasing effect on economic activity, by representing a market that could be profitable if the right conditions are established to avoid systemic risks, and with high diversification potential.

To move towards more comprehensive financial coverage, and considering the results obtained in the present research regarding institutional quality, access channels, education and palliatives to asymmetric information, concrete measures are necessary. From a supply perspective, the opening of low-cost accounts for basic services should be promoted, while at the same time simplifying and standardizing the documentation necessary for their opening through electronic platforms, supported by financial education and technological readiness programs. The subsidiarity role of development banks is also relevant for the granting of guarantees, for preferential credit support, and for providing specialized advice and financial services. In this area, supranational organizations must promote financial inclusion by channeling resources for this purpose, but with greater monitoring of the destination and use of the funds.

On the demand side, it is necessary to explore what the transition from informality to formality represents in practice in each country, its organizational culture, and whether financial services match the needs and educational level of their potential users. This requires, as has been demonstrated in the present study, an exhaustive analysis of the national culture and the regulatory framework that determines the existing incentives in the country.

As pointed out by Jungo *et al.* (2022), the effectiveness of any financial inclusion initiative depends on these factors, regardless of whether it is focused on technological innovation, user protection, financial education or technological literacy, disclosure of relevant information, or regulatory proportionality to the risks of innovative products.

It should also be noted that this research is not exempt from limitations, among which are the use of a narrow indicator of human capital and not inquiring into the endogenous nature of several variables in the model, which is only detected. However, the analysis period of just over a decade validates the unidirectional character established between social capital, human capital, and financial inclusion, given the persistence of the cultural traits of a society, its institutional quality, and its educational level. It only seeks to establish whether there is a significant effect of these characteristics on financial inclusion and its sign, and not an exact quantitative relationship for statistical inference purposes.

In this sense, we must also remember the weaknesses attributed to the panel models, which assume that the economies share the same function and that this is relatively stable over time, although in their defense it should be noted that they allow us to focus on priority issues of analysis and, by considering homogeneous and reliable sources of information, facilitate international comparison and the drawing of general conclusions, opening the possibility of developing subsequent studies that allow understanding national and even local specificities.

Thus, the most promising lines of research derived from this document are those that seek to detail the analysis by the level of national development, distinguishing individuals from companies, people by gender and age, or firms by size and sector. Some of this information already exists, although it will take some time to have the time and cross-sectional series that enable its statistical treatment.

ORCID

Lilianne Isabel Pavón Cuéllar https://orcid.org/0000-0002-1410-034X

References

Alonso, J. A., & Garcimartín, C. (2013). The Determinants of Institutional Quality. More on the Debate. *Journal of International Development, 25*(2), 206-226. http://dx.doi.org/10.1002/jid.1710

Anyangwe, T., Vanroose, A., & Fanta, A. (2022). Determinants of financial inclusion: Does culture matter? *Cogent Economics & Finance, 10*(1), 2073656. http://dx.doi.org/10.1080/23322039.2022.2073656

Bagehot, W. (1873). *Lombard Street: A Description of the Money Market* (1st ed. ed.): Scribner, Armstong & Co.

Barro, R. J. (1996). Determinants of economic growth: A cross-country empirical study: The MIT Press.

Bates, R. H. (1995). Social Dilemmas and Rational Individuals: An Assessment of New Institutionalism. In J. Harris, J. Hunter, & C. M. Lewis (Eds.), *The New Institutional Economics and Third World Development*: Routledge. http://dx.doi.org/10.4324/9780203444290.ch3

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. *Journal of economic growth, 12*, 27-49.

Becker, G. (1998). *Accounting for Tastes*: Harvard University Press. Blum, Ulrich & Leonard.

Bialowolski, P., Xiao, J. J., & Weziak-Bialowolska, D. (2023). National Culture and Financial Capability: A Global Perspective. *Social Indicators Research, 170*(3), 877-891. http://dx.doi.org/10.1007/s11205-023-03221-7

Borner, S., Brunetti, A., & Weder, B. (1995). *Political Credibility and Economic Development*: Palgrave Macmillan London. http://dx.doi.org/10.1007/978-1-349-24049-4

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*: World Bank Group. http://dx.doi.org/10.1596/978-1-4648-1259-0

Demsetz, H. (1967). Toward a Theory of Property Rights. *The American Economic Review, 57*, 347-359.

EIU. (2022). The Democracy Index. Retrieved from https://www.eiu.com/n/campaigns/democracy-index-2022/

Enriquez, V. G. (1979). Towards cross-cultural knowledge through cross-indigenous methods and perspective. *Philippine Journal of Psychology, 12*(1), 9-15.

Friedman, M. (1957). *A Theory of the Consumption Function*: Princeton University Press. http://dx.doi.org/10.1515/9780691188485

Girma, S., & Shortland, A. (2008). The Political Economy of the Financial Development. *Oxford Economic Papers, 60*(4), 567-596. http://dx.doi.org/10.1093/oep/gpm040

Goldsmith, R. W. (1969). *Financial Structure and Development*: Yale University Press.

Gujarati, D. (2003). *Basic Econometrics* (4th ed. ed.): McGraw Hill, United States Military Academy.

Hall, R., & Jones, C. (1999). *Why Do Some Countries Produce So Much More Output per Worker than Others? The Quarterly Journal of Economics 114. 83 - 116*: Oxford University Press. http://dx.doi.org/10.3386/w6564

Hicks, J. (1969). *A Theory of Economic History*: Clarendon Press.

Hodgson, G. (2006). What Are Institutions? *Journal of Economic Issues, 40*(1), 1-25. http://dx.doi.org/10.1080/00213624.2006.11506879

Hoffmann, S. (2001). *Politics and Banking. Ideas, Public Policy, and the Creation of Financial Institutions*: Johns Hopkins University Press.

Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations*: Sage Publications.

Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and Organizations, Software of the Mind*: McGraw-Hill.

Holzmann, R. (2011). Bringing financial literacy and education to low and middle income countries. *Financial Literacy: Implications for Retirement Security and the Financial Marketplace*, 255-267.

House, R. J., Hanges, P. J., Javidan, M., Dorfman, P., & Gupta, V. (2004). *Leadership, Culture, and Organizations: The GLOBE Study of 62 Societies*: Sage Publications.

Hsu, S., Woodside, A., & Marshall, R. (2013). Critical tests of multiple theories of cultures' consequences: Comparing the usefulness of models by Hofstede, Inglehart and Baker, Schwartz, Steenkamp, as well as GDP and distance for explaining overseas tourism behavior. *Journal of Travel Research, 52*(6), 679-704. http://dx.doi.org/10.1177/0047287512475218

ILO. (2023). International Labour Organization. Retrieved from http://www.ilo.org/global/lang--en/index.htm

IMF. (2023). *Financial Access Survey*: Trends and Developments.

Inglehart, R., & Baker, W. (2000). Modernization, Cultural Change, and the Persistence of Traditional Values. *American Sociological Review, 65*, 19-51. http://dx.doi.org/10.1177/000312240006500103

Jaén, I., Fernández-Serrano, J., & Liñán, F. (2013). Valores culturales, nivel de ingresos y actividad emprendedora. *Revista de Economía Mundial, 35*, 35-51.

Jungo, J., Madaleno, M., & Botelho, A. (2022). Financial Regulation, Financial Inclusion and Competitiveness in the Banking Sector in SADC and SAARC Countries: The Moderating Role of Financial Stability. *International Journal of Financial Studies, 10*(1), 22. http://dx.doi.org/10.3390/ijfs10010022

Kashyap, A., Stein, J., & Wilcox, D. (1993). Monetary Policy and Credit Conditions: Evidence from the Composition of External Finance. *The American Economic Review, 83*(1), 78-98.

Keefer, P., & Knack, S. (1998). *Political stability and economic stagnation.* Paper presented at the In The Political Dimension of Economic Growth: Proceedings of the IEA Conference held in San José, Costa Rica.

Keynes, J. M. (1936). *The General Theory of Employment, Interest, and Money*: Harcourt & Brace.

Kuznets, S., Epstein, L., & Jenks, E. (1946). *National product since 1869*. New York, USA: National Bureau of Economic Research.

Labra, R., & Torrecillas, C. (2018). Estimating Dynamic Panel Data. A Practical Approach to Perform Long panels. *Revista Colombiana de Estadistica, 41*(1), 31-52. http://dx.doi.org/10.15446/rce.v41n1.61885

Landes, D. (1998). *The Wealth and Poverty of Nations: Why Some Are So Rich and Some So Poor*: W.W. Norton & Co.

Lannquist, A., & Tan, B. (2023). Central Bank Digital Currency's Role in Promoting Financial Inclusion. *FinTech Notes, 2023*(011).

Levine, R., & Zervos, S. (1998). Stock Markets, Banks, and Economic Growth. *The American Economic Review, 88*(3), 537-558.

McKinnon, R. (1973). *Money and Capital in Economic Development*: The Brookings Institutions.

Minsky, H. (1982). *Inflation, Recession, and Economic Policy*: Wheatsheaf Books.

Modigliani, F., & Brumberg, R. (1954). Utility Analysis and the Aggregate Consumption Function: An Interpretation of Cross-Country Data. In K. K. Kuridara (Ed.), *Post-Keynesian Economics* (pp. 128-197): Rutgers University Press.

Mosley, P., & Hulme, D. (1998). Microenterprise Finance: Is There a Conflict Between Growth and Poverty Alleviation? *World Development, 26*(5), 783-790. http://dx.doi.org/10.1016/S0305-750X(98)00021-7

North, D. (1990). *Institutions, Institutional Change and Economic Performance*: Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511808678

O'Donnell, G. (1997). *Contrapuntos: ensayos escogidos sobre autoritarismo y democratización*: Paidós.

OECD. (2021). Going for Growth 2021: Shaping a Vibrant Recovery. Retrieved from https://www.oecd.org/economy/going-for-growth/

OECD. (2023). International Survey of Adult Financial Literacy. Retrieved from https://www.oecd.org/publications/oecd-infe-2023-international-survey-of-adult-financial-literacy-56003a32-en.htm

Olson, M. (1993). Dictatorship, Democracy, and Development. *The American Political Science Review, 87*(3), 567-576. http://dx.doi.org/10.2307/2938736

Ozcan, K., Gunay, A., & Ertac, S. (2003). Determinants of Private Savings Behavior in Turkey. *Applied Economics, 35*(12), 1405-1416. http://dx.doi.org/10.1080/0003684032000100373

Pavón Cuéllar, L. I. (2015). Los rasgos culturales en la conformación de la competitividad y del crecimiento sostenible. *Revista de Estudios Empresariales, Segunda Época*.

Pavón Cuéllar, L. I. (2019). International financial inclusion: Multidimensional Determinants of Access to Saving and Credit. *Zbornik Radova Ekonomskog Fakulteta u Rijeci, 37*(2), 401-425. http://dx.doi.org/10.18045/zbefri.2019.2.401

Pavón Cuéllar, L. I. (2021). Financial Inclusion as a Pillar of Sustainable Growth: International Experience. *23*(2), 107-121. http://dx.doi.org/10.5937/ekonhor2102107P

Putnam, R. (1993). The Prosperous Community: Social Capital and Public Life. *The American Prospect, 4*, 35-42.

Rajan, R. G., & Zingales, L. (2003). The Great Reversal: The Politics of Financial Development in the Twentieth Century. *Journal of Financial Economics, 69*, 5-50. http://dx.doi.org/10.1016/S0304-405X(03)00125-9

Roa, M. J., Alonso, G., Garcia, N., & Rodríguez, D. (2014). *Financial Education and Inclusion in Latin America and the Caribbean. Central Banks Programs and the Financial Superintendence*: Center for Latin American Monetary Studies.

Rodrik, D. (2007). One Economics, Many Recipes: Globalization, Institutions, and Economic Growth. *Journal of International Business Policy*. http://dx.doi.org/10.2307/j.ctvcm4jbh
10.1515/9781400829354
Rodrik, D. (2018). Populism and the Economics of Globalization. *Journal of International Business Policy, 1*, 12-33. http://dx.doi.org/10.1515/9781400829354
Roodman, D. (2009). How to Do Xtabond2: An Introduction to Difference and System GMM in Stata. *The Stata Journal, 9*(1), 86-136. http://dx.doi.org/10.1177/1536867X0900900106
Saha, M., & Dutta, K. D. (2023). Does governance quality matter in the nexus of inclusive finance and stability? *China Finance Review International, 13*(1), 121-139. http://dx.doi.org/10.1108/CFRI-08-2021-0166
Saifurrahman, A., & Kassim, S. H. (2022). Mitigating asymmetric information to enhance MSME Islamic financial inclusion by Islamic banks in Indonesia. *Qualitative Research in Financial Markets*, *15*(3), 453-470.
Sala-i-Martin, X. (2006). The World Distribution of Income: Falling Poverty and Convergence. *The Quarterly Journal of Economics*, *121*(2), 351-397. http://dx.doi.org/10.1162/qjec.2006.121.2.351
Samuelson, P., & Nordhaus, W. (2010). *Macroeconomía con Aplicaciones a Latinoamérica* (19th ed. ed.): McGraw Hill.
Sarma, M. (2008). Index of financial inclusion. *ICRIER Working Paper*, 1-27. Retrieved from https://www.icrier.org/pdf/Working_Paper_215.pdf
Schwartz, S. H. (2012). An Overview of the Schwartz Theory of Basic Values. *Online Readings in Psychology and Culture, 2*(1). http://dx.doi.org/10.9707/2307-0919.1116
Scott Armstrong, S., & Collopy, F. (1993). Causal Forces: Structuring Knowledge for Time-Series Extrapolation. *Journal of Forecasting, 12*(2), 103-115. http://dx.doi.org/10.1002/for.3980120205
Shaw, E. S. (1973). *Financial Deepening in Economic Development*: Oxford University Press.
Smith, A. (1776). *The Wealth of Nations*: Penguin Classics.
Stata. (2019). Stata 16 Manuals: Longitudinal Data/ Panel Data Reference Manual. *Stata Press*, 313-372. Retrieved from https://www.stata.com/manuals/xt.pdf
Steenkamp, J. (2001). The Role of National Culture in International Marketing Research. *International Marketing Review, 18*(1), 30-44. http://dx.doi.org/10.1108/02651330110381970
Stiglitz, J., & Weiss, A. (1981). Credit Rationing in Markets with Imperfect Information. *The American Economic Review, 71*(3), 393-410.
Taras, V., Kirkman, B. L., & Steel, P. (2010). Examining the impact of Culture's consequences: A three-decade, multilevel, meta-analytic review of Hofstede's cultural value dimensions. *The Journal of Applied Psychology, 95*(3), 405-439. http://dx.doi.org/10.1037/a0018938
UN. (2015). Transforming Our World: The 2030 Agenda for Sustainable Growth. Retrieved from https://sdgs.un.org/2030agenda
Van, L. T., Nguyen, N. T., Nguyen, H. L., & Vo, D. H. (2022). The asymmetric effects of institutional quality on financial inclusion in the Asia-pacific region. *Heliyon, 8*(12). http://dx.doi.org/10.1016/j.heliyon.2022.e12016
World Bank. (2022). COVID-19 Boosted the Adoption of Digital Financial Services. Retrieved from https://www.worldbank.org/en/news/feature/2022/07/21/covid-19-boosted-the-adoption-of-digital-financial-services
World Bank. (2023). Worldwide Governance Indicators Data Bank. Retrieved from https://datacatalog.worldbank.org/
World Economic Forum. (2020). The Global Competitiveness Report. Retrieved from https://www.weforum.org/publications/the-global-competitiveness-report-2020/
Wu, K., & Wan, S. (2023). Job stability and household financial vulnerability: Evidence from field surveys in China. *Finance Research Letters, 58*(C), 104554. http://dx.doi.org/10.1016/j.frl.2023.104554

Yang, F., & Masron, T. (2024). Role of financial inclusion and digital transformation on bank credit risk. *Journal of International Financial Markets, Institutions and Money, 91*, 101934. http://dx.doi.org/10.1016/j.intfin.2023.101934

Yeganeh, H. (2013). An investigation into the cultural and religious determinants of national competitiveness. *Competitiveness Review*, *23*(1), 23-40. http://dx.doi.org/10.1108/10595421311296605

Zeqiraj, V., Sohag, K., & Hammoudeh, S. (2022). Financial inclusion in developing countries: Do quality institutions matter? *Journal of International Financial Markets, Institutions and Money, 81*, 101677. http://dx.doi.org/10.1016/j.intfin.2022.101677