Financial Literacy, Financial Inclusion, and Objective Financial Situation in México

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Abstract

This study aims to build an indicator for measuring a consumer's objective financial situation and examine how financial inclusion and financial literacy relate to it among Mexico's adult population. This indicator applies to geographically dispersed, economically unequal, and socially contrasting nations and can be a referent to other emergent economies. We employed multiple correspondence analysis and a multiple linear regression model based on ordinary least squares. We show that all financial literacy and inclusion components positively relate to the consumer's objective financial situation; however, they do not have the same weight. The most relevant factors are financial behavior, access and tenure of financial products, and financial consumer protection and confidence. Improving Mexico's objective financial situation must consider accompanying consumers through their experience within the financial system and generating the confidence to conduct financial transactions effectively.

Introduction

According to Mexico's financial inclusion policy, the population's objective financial situation is precarious, and its main causes are financial exclusion and uneven financial literacy (Government of Mexico, 2020). On the one hand, banking services are still regarded as simple intermediaries to access cash (CNBV, 2020). On the other hand, financial literacy presents wide gaps associated with gender, schooling, income, rural communities, and geographical regions (SHCP and CNBV, 2019).

An objective financial situation refers to a person’s financial conditions, either present (i.e., money management, budgeting, and debt) or future-oriented (i.e., savings, insurance, and retirement) (Warmath, 2021). It can represent an accurate indicator for estimating a household’s economic progress and poverty reduction. Unfortunately, research on consumers' objective financial situation in emergent economies is limited and has regularly been based mainly on earnings or wealth.

This work aims to build an indicator for measuring consumers’ objective financial situation and examine the extent to which financial inclusion and financial literacy contribute to it among the adult population in Mexico. Furthermore, the findings of this study have implications for public and private institutions interested in transitioning from strategies focused on income and access to financial services to initiatives that promote sustainable consumption with a long-term vision.

Literature Review

Different studies have analyzed the relationship between financial literacy components (knowledge, attitude, and behavior) and objective financial outcomes. For example, when people have accumulated sufficient financial knowledge, they are better prepared to make rational economic decisions, therefore, are more likely to obtain better objective financial results (Fu, 2020; Lee et al., 2020; Warmath, 2021). Likewise, financial attitudes effectively predict financial progress if combined with financial knowledge (Carpena and Zia, 2020; Netemeyer et al., 2018; Xiao et al., 2014). Moreover, financial behavior is closely associated with responsible financial practices and effective financial decisions that lead to financial prosperity (Serido, 2022; Xiao and O'Neill, 2018).

People may possess sufficient financial knowledge, skills, attitudes, and behaviors to meet their present and future needs; however, these competencies alone do not guarantee financial resilience and goals. Consumers need mechanisms to pay, transfer, accumulate money, contract insurance, and confidently access credits. In this sense, Nandru et al. (2021) found that accessibility, availability, use, and affordability of financial products substantially improve people's financial situation.

Therefore, we propose the following hypotheses concerning Mexican adults:

H1: Financial literacy positively associates with a consumer's objective financial situation.

H2: Financial inclusion positively associates with a consumer's objective financial situation.

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Method

We analyzed data from the National Survey of Financial Inclusion, NSFI (INEGI, 2022), corresponding to people aged 18 and older living in Mexico by mid-2021 (n=13,554). They represent a nationally representative population of 90,328,320 (52.8% women and 47.2% men). With these data, we constructed an objective financial situation index (OFS) based on the NSFI questions and the models employed by various researchers (CFPB, 2017; Fu, 2020; Ladha et al., 2017). The selected items were binary encoded, assigning 1 to the affirmative option and 0 otherwise. These include holding any insurance; planning actively for retirement; receiving enough income to cover monthly expenses; financing expenses with savings for at least one month in case of suddenly stop receiving any income; sticking to a budget; saving cash at home; having bought goods which would be easy to sell in case of an emergency; stating that their financial situation does not control their life; striving to achieve long-term economic goals; feeling that they will have the things they want in life; and owning a home or apartment. Then, we performed a multiple correspondence analysis, MCA, according to the following equation:

$$OFS = A1\cdot Insurance + A2\cdot Retirement + A3\cdot Expenses + A4\cdot Resilience + A5\cdot Budget + A6\cdot Liquidity + A7\cdot Assets + A8\cdot Freedom + A9\cdot Goals + A10\cdot Achievement + A11\cdot Housing + error$$

For a more straightforward interpretation, we adjusted the index (OFS_0) to range from 0 to 100, so the higher its value, the better the consumer's objective financial situation. Later, we analyzed financial literacy following the model proposed by Atkinson and Messy (2012). Its components are estimated separately because each captures different aspects of individual financial capabilities, which sometimes vary inversely from each other.

Financial knowledge (FK) was evaluated with seven binary-coded questions, which refer to the value of money over time, inflation, risk, risk diversification, interest concept, simple interest computation, and compound interest. For financial attitude (FA), we measured the propensity to save, future orientation, and the use of money. Finally, we assessed financial behavior (FB) with four items: careful consumption, paying bills on time, efficiency in spending, and money management (Atkinson and Messy, 2012).

In line with this, we separately measured the components of financial inclusion to analyze their impact on the objective financial situation based on the models proposed by different scholars (Mialou and Amidzic, 2017; Sarma, 2008).

Firstly, access and tenure (AT) refer to whether consumers hold any financial product a formal financial institution offers. These products include bank accounts, sophisticated investment accounts, credit cards, or voluntary contributions to their retirement fund. Secondly, usage (US) evaluates whether people use formal financial services, such as having a standing credit, using traditional financial channels, performing transactions through non-bank commission agents, paying electronically for transportation services, or having purchased in convenience stores with a debit or credit card.

Thirdly, for innovation and proximity (IP), we considered whether individuals live within 15 minutes or less away from the nearest bank ATM or branch, have signed up for an online bank account, made a transfer with the digital collection service (CoDi, promoted by Mexico's central bank to do electronic bank transfers for up to 400 USD a day), or used a bank's website or mobile app to do financial transactions. Finally, protection and confidence (PC) included whether the consumer trusts financial institutions, knows that IPAB (equivalent to FDIC in the U.S.) guarantees formal deposits, and which institution to go to for a formal financial dispute.

This study follows a quantitative and cross-sectional approach. Initially, we estimated latent variables (OFS_0, FK, FA, FB, AT, US, IP, PC) using multiple correspondence analyses (MCA). Later, we analyzed the relation between OFS_0, financial literacy and financial inclusion components with a multiple linear regression model based on OLS, in which contribution weights (beta) were estimated. We also included the control variables age and age-squared, gender, marital status, education, and occupation.

Results

We tested a model that included financial literacy and financial inclusion components and control variables. We confirmed that all their components positively relate to the objective financial situation index but present different contribution weights. The most relevant components are financial behavior, access and tenure of financial products, and financial consumer protection and confidence. These results are enough not to reject H1 and H2. Similarly, education plays a dominant role in explaining consumers' OFS, while age inversely associates with it, following a non-linear pattern.

Additionally, we confirmed a significant gender gap in favor of males, while the retired exhibit the best levels of OFS, followed by workers, students, the unemployed, and homemakers.

Discussion

Our results show financial behavior is the most relevant factor associated with people's objective financial situation among the financial capabilities components. This fact is consistent with access and tenure of financial products, the second most significant factor. The rationale behind these two factors is that exerting desirable financial practices requires having available and holding formal financial products. Consequently, the third most relevant factor is trust in financial institutions. In other words, becoming a financial consumer requires being confident in finding solutions to financial household problems in a reliable, competitive, and cost-efficient manner.

Furthermore, our results identify the market segments to which private financial services and well-being policies should be oriented. These include women, the elder, the less educated, and those with lower and unstable incomes. Thus, our results are helpful for policymakers and agencies implementing strategies for improving financial literacy, financial inclusion, and consumers' economic conditions in Mexico. Analogously, private financial institutions can benefit from our findings because they can improve the expansion of their services by focusing on traditionally unattended segments and building a trustworthy reputation.

Among the lines for future research are evaluating Mexico's financial inclusion policy to effectively detect the most successful strategies and testing the present objective financial situation model in other emerging economies. Also, we consider it necessary to assess the impact of digital financial strategies considering consumers' technology acceptance, security perception, and trust in the financial system. Therefore, enhancing consumer and family economic well-being is a social responsibility that requires the participation and engagement of people and institutions.

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