
[Download \(only in Spanish\)](#)

Keep in mind

The series Working Papers on Economics is published by the Office for Economic Studies at the *Banco de la República* (Central Bank of *Colombia*). It contributes to the dissemination and promotion of the work by researchers from the institution. This series is indexed at Research Papers in Economics (RePEc).

On multiple occasions, these works have been the result of collaborative work with individuals from other national or international institutions. The works published are provisional, and their authors are fully responsible for the opinions expressed in them, as well as for possible mistakes. The opinions expressed herein are those of the authors and do not necessarily reflect the views of Banco de la República or its Board of Directors.

AUTHORS AND/OR EDITORS

[Martínez-Ventura, Constanza](#) [Melo-Becerra, Ligia Alba](#)

The results show considerable heterogeneity in the adoption and use of payment methods and reveal that mobile wallets broaden the range of options available to users.

Approach

This study provides an assessment of retail payments and the potential changes brought about by the introduction of mobile wallets in the population's payment preferences. An empirical evaluation is conducted to compare the adoption of these innovations with traditional payment services. To this end, a territorial approach is considered using spatial econometric models to examine regional heterogeneity, along with a user-level approach based on machine learning techniques to capture individual behaviors and non-linear relationships in the adoption of payment methods.

Contribution

The paper contributes to the literature by combining territorial and microeconomic perspectives to understand the dynamics of the payment ecosystem. It incorporates location as a central element to explain regional gaps in adoption and offers novel evidence on the individual determinants of mobile wallet, debit card, and check usage. Furthermore, it explicitly contrasts traditional payment instruments with mobile wallets, broadening the understanding of the market and the factors that facilitate or hinder their adoption.

Results

The findings reveal substantial regional heterogeneity in the adoption of payment services, explained by economic and financial interactions across regions, as well as by differences in digital connectivity and education levels. At the individual level, high heterogeneity in the adoption and use of payment methods is also observed, associated with income, age, gender, perceptions of the financial system, and perceived ease of use of new technologies. Additionally, evidence of multi-homing is found, as a segment of users employs multiple payment methods, suggesting that mobile wallets expand and complement the available payment alternatives.