Finance at Your Fingertips: How Mobile Apps Shape Decisions

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Abstract

This study analyzes how mobile applications influence financial decision-making. Using data from 50,000 clients of a Spanish bank, it was found that those who use the app are less likely to incur delinquency ($\beta = -1.110$) and, for the most part, are also less likely to experience overdrafts ($\beta = -0.122$).

Introduction

In today's digital age, mobile applications have significantly transformed the way we interact with the world. From communication to entertainment, mobile apps have become deeply integrated into daily life, providing easy access to a wide range of services and resources. On one hand, businesses have found in the mobile channel a means to reach consumers in a more individualized and personalized way, offering opportunities to enhance commercial experiences (Narang & Shankar, 2019). On the other hand, consumers find value in these applications, which provide additional opportunities to interact with companies conveniently and instantly throughout different stages of the customer journey (Kim et al., 2015). Given that consumers spend over 87% of their mobile phone usage on apps and average more than two and a half hours daily on them (Narang & Shankar, 2019), understanding the implications of app usage on consumer behavior becomes essential.

The interest in this topic arises from the observation of two parallel trends in the literature. On one hand, various studies highlight the benefits that mobile applications can offer in terms of accessibility, efficiency, and autonomy in financial management. These tools enable consumers to make more informed decisions, optimize their spending patterns, and improve their financial planning through reminders, predictive analyses, and personalized recommendations (Fernandes et al., 2014; Salisbury et al., 2023). On the other hand, some research has pointed out potential adverse effects stemming from the adoption of these applications. Information overload, technological dependence, and excessive trust in algorithms may lead to cognitive biases that undermine the rationality of financial decision-making (Hadar et al., 2013; Liu & Sese, 2022).

Objectives

The main objective of this study is to provide an understanding of the impact that the adoption and use of mobile applications have on users' financial decisions. Specifically, this work aims to: (1) identify the distinctive capabilities of mobile applications; (2) understand the process behind individuals' financial decision-making and the role of financial knowledge and education; (3) assess the impact of mobile applications on users' financial literacy; and (4) explore how financial knowledge acquired through mobile applications influences financial decisions..

Methodology

To address these objectives, this study employs panel data techniques applied to a dataset provided by a major financial institution in Spain, containing information on 50,000 customers over the period 2015–2020. The dataset includes detailed information on the relationship between the bank and its clients, such as the number and types of financial channels used (mobile app, online banking, ATMs, bank branches, etc.). It also captures clients' transactional history, including the frequency and volume of transactions, as well as the types of operations performed (economic, non-economic cancellations, etc.). Additionally, the dataset includes information on users' financial status, such as account balances and possible irregular financial situations. Finally, the database incorporates key sociodemographic variables, such as gender, age, marital status, and other factors that may influence customers' financial decisions.

The estimation procedure is based on econometric models using panel data, which allow for addressing the longitudinal nature of the information, as well as

heterogeneity and endogeneity in customers' financial decisions. Primarily, ordinary least squares (OLS) regression models and logit models are applied to explore the impact of mobile banking app usage on financial decisions such as total spending, number of transactions, account balances, use of physical channels, and the amount of irregular financial situations.

Preliminary results

The results from four OLS regression models indicate that mobile app adoption is significantly associated with improved financial behavior across all outcome measures. Specifically, adoption is linked to a lower likelihood of overdraft ($\beta = -.122$; $p < .001$) and delinquency ($\beta = -1.110$; $p < .001$). However, it is also associated with higher logged values of overdraft ($\beta = .195$; $p < .001$) and a modest but significant increase in the logged value of delinquency ($\beta = .102$; $p < .001$), suggesting that while the probability of these events decreases, their financial magnitude may still require attention. The percentage of mobile app usage presents mixed effects: it is positively associated with the probability of overdraft ($\beta = .011$; $p < .001$) and delinquency ($\beta = .006$; $p < .001$), but negatively associated with the logged overdraft amount ($\beta = -.004$; $p < .05$), indicating that more intensive app use may help limit the severity of overdrafts when they do occur. Regarding economic operations, clients who performed at least one such transaction were more likely to experience overdrafts ($\beta = .016$; $p < .001$), but had lower overdraft amounts in logged terms ($\beta = -.035$; $p < .001$), and were less likely to become delinquent ($\beta = -.103$; $p < .001$), potentially reflecting more active financial management and quicker responses to obligations.

The consultation variable also plays a nuanced role, showing a negative association with the likelihood of both overdraft ($\beta = -.002$; $p < .001$) and delinquency ($\beta = -.012$; $p < .001$), supporting the idea that informational engagement via digital channels fosters better financial decision-making. However, its effect on the logged amounts of overdraft ($\beta = .001$) and delinquency ($\beta = -.004$) is minimal, suggesting limited influence on the severity of these events. Control variables perform as expected: age is negatively associated with the probability of overdraft and delinquency but positively associated with the amount of delinquency. Female clients are less likely to incur overdrafts ($\beta = -.402$; $p < .001$) or become delinquent ($\beta = -.646$; $p < .001$), while

clients with more children and lower levels of education are consistently more vulnerable to adverse financial outcomes.

Conclusions

This study contributes in three key areas: theoretical, practical, and social. From a theoretical perspective, it seeks to expand the existing literature on the relationship between emerging technologies and financial decision-making, by exploring how both objective and subjective financial knowledge can mediate the link between mobile app use and users' financial behavior. On a practical level, its findings may be valuable for banks and app developers, as they support the design of more effective digital tools—not only to facilitate transactions, but also to promote financial education and user autonomy. Finally, from a social standpoint, the study contributes to the ongoing debate on the effects of digitalization on personal financial management.

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