THE IMPACT OF DIGITAL FINANCIAL TOOLS ON HOUSEHOLD DECISION-MAKING: A BIBLIOMETRIC AND SYSTEMATIC LITERATURE REVIEW

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Abstract
The accelerated digitization of financial services has substantially reconfigured the way households plan, allocate and monitor their resources. This study aims to analyze the impact of digital financial instruments on decision-making processes at household level, through a dual methodological approach: systematic review of the literature and bibliometric analysis. The studies included in the analysis were selected from the Lens.org database, covering the period 2006-2026. The bibliometric analysis, carried out with the support of VOSviewer, identified the main research trends, co-citation networks and emerging thematic clusters. The results indicate an exponential increase in academic interest in this topic since 2019, correlated with the expansion of the fintech ecosystem globally. The systematic review, based on 27.680 selected articles, reveals that the adoption of digital financial instruments is associated with improved saving behavior, reduced cognitive effects in financial decision-making, as well as better alignment between declared intertemporal preferences and observed financial behavior. At the same time, the study signals significant moderating effects of the level of digital financial literacy, access to technological infrastructure and socio-demographic factors. The original contribution of the paper consists in synthesizing an integrated conceptual framework that connects financial behavior theory, technology adoption theory, and behavioral economics, providing a comprehensive perspective on the mechanisms by which financial technology mediates decisions. The implications of the study are relevant for both financial inclusion public policies and end-user-oriented fintech product design.

Keywords: *digital financial instruments, household financial decisions, fintech, bibliometric analysis, systematic literature review, financial behavior*

JEL Classification: D14, G53, O33

1. Introduction

The digital transformation of the global financial system is one of the most significant economic phenomena of the 21st century, with profound implications for individual behavior. This reconfiguration is not only technological, but behavioral and decision-making, affecting the way households perceive, process and act in relation to financial information (Kamleitner, Mengay, Kirchler, 2017).

However, the academic literature dedicated to understanding the mechanisms by which these tools effectively influence household financial behavior remains fragmented and lacking a coherent conceptual synthesis. Existing studies predominantly address isolated dimensions (technology adoption, user satisfaction, or financial inclusion) without integrating the complementary perspectives of behavioral economics, financial decision theory, and computational science into a unified framework. This theoretical and methodological gap is the starting point of the present research.

The present study starts from the premise that digital financial instruments do not act as simple technical intermediaries (Giaglis, Klein, O'Keefe, 2002), but as active agents for modeling preferences, reducing cognitive costs and reconfiguring the architecture of choice at the household level. In this perspective, financial decision can no longer be analyzed exclusively through traditional models of maximizing utility, but requires an interdisciplinary approach that integrates theories of financial behavior, models of technology adoption and the principles of behavioral economics formulated by Lynne (1995).

The main objective of the works is to analyze the evolution and structure of the literature by means of a rigorous bibliometric analysis. Through this methodological approach, the study aims to go beyond the limits of a simple literature review, instead providing a layered analysis of trends, gaps and future research directions.

The original contribution of the paper is articulated on two levels: (i) providing a bibliometric map of the literature, identifying thematic clusters, authors and reference journals, as well as the temporal evolution of academic interest; (ii) synthesizing and critically assessing the empirical evidence on the impact of digital financial instruments on saving, investing and risk management behavior at household level;

The paper is structured as follows: presentation of the theoretical and conceptual framework of the research; a detailed description of the methodology used; the presentation of the results obtained and formulating conclusions, study limits and future research directions.

2. Literature review

The analysis of the impact of digital financial instruments on household decision-making is based on an interdisciplinary theoretical framework and allows a complex understanding of the mechanisms by which the digitization of financial services transforms the processes of choice and allocation of resources at individual and family level.

The starting point of any analysis of the financial behavior of the household is the inclusion of the concept of behavioral economics, which has demonstrated that individuals do not act according to the rational model of neoclassical theory. The perspective theory, developed by Kahneman and Tversky (1992), argues that human decisions are driven by variations in the level of wealth, not by its absolute level, and that the psychological effect of a loss is significantly more intense than that of a gain of the same magnitude, a phenomenon known as loss aversion. In the context of digital financial instruments, this asymmetry has direct implications: applications that visualize expenses in real time activate loss aversion mechanisms more strongly than monthly bank statements, thus stimulating savings behaviors.

In addition, Desai (2018) addresses the tension between freedom of choice and public policy design through the concept of nudge and choice architecture, arguing that because people's preferences are influenced by the default rules and starting points of a system, policies and products should be explicitly designed with the aim of improving people's well-being. Recent research demonstrates that digital ecosystems simultaneously amplify decision-making efficiency and introduce new behavioral risks, requiring adaptive psychological responses from both individuals and institutions.

Moreover, Lusardi and Mitchell (2014), approach financial knowledge as a form of investment in human capital, with significant implications for well-being and for policies aimed at improving the level of financial knowledge in the population. In the context of digitalization, the concept of financial literacy extends to the concept of digital financial literacy. Kumar and Sandhu (2024), using structural equation models, attest to the relevance of digital financial literacy, financial capacity, financial autonomy, and impulsiveness on the quality of financial decision-making; In addition, financial capacity partially mediates the relationship between digital financial literacy and financial decision-making.

A balanced perspective of the literature also requires recognition of the potentially adverse effects of financial digitalization on the household. Although the development of inclusive digital finance can produce adverse effects, such as deepening disparities between groups, exacerbating the digital divide or increasing the risk of financial pitfalls, its overall impact remains largely positive.

3. Data and Methodology

The present research adopts a complex methodology by implementing a bibliometric analysis, a rigorous method of exploring and analyzing large volumes of scientific data, allowing the disclosure of the evolutionary nuances of a specific field and the identification of emerging areas within it (Donthu et al., 2021). Bibliometric analysis has the advantage of objectivity in dealing with an extensive framework of publications, reducing the risk of subjectivity in selection and interpretation.

The choice of this method is further justified by the exponential growth of publications in the field of fintech and digital financial decision-making, which makes an exhaustive manual review impossible and requires quantitative science mapping tools.

The bibliometric data used in the present study were extracted from the international reference database, Lens.org. The choice of this source is motivated by complementarity and the focus on innovation.

The analysis of the authors' keyword co-occurrence network allows the identification of the main research themes, highlighting the conceptual relationships between the central constructs of the field and provides a holistic perspective on the thematic structure of the literature (Xu et al., 2018).

4. Results and discussions

The first dimension of the bibliometric analysis concerns the quantitative evolution of publications in the field during the period 2006-2026, illustrated in Figure 1.

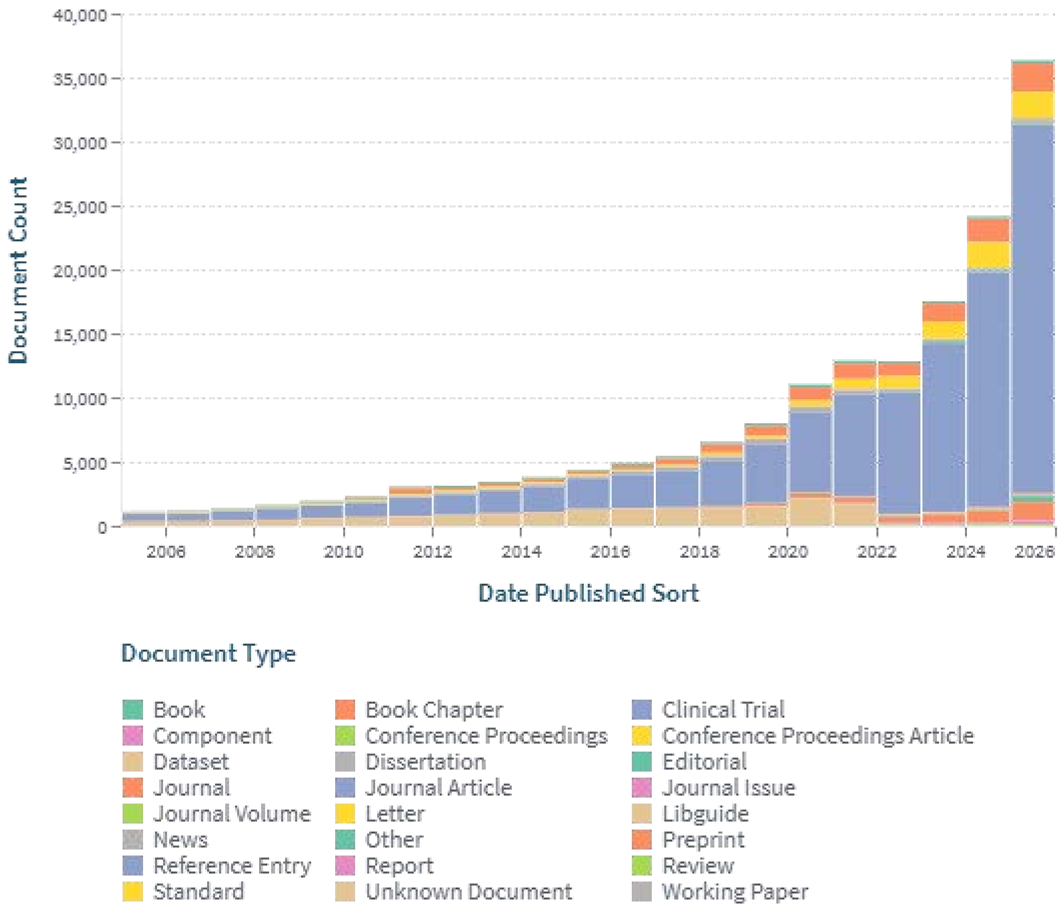

Figure 1. Annual evolution of scientific production in the field of digital financial instruments and household decision (2006–2026), by document types *(Scholarly Works Over Time)*

Source: Own processing in VOSviewer based on data extracted from Lens.org

It can be seen in Figure 1 that between 2006 and 2014, scientific research remains at low levels, below 5,000 documents annually, reflecting the early stage of the fintech ecosystem and associated academic research. Publications from this period are dominated by *journal articles* and conference proceedings, indicating that the field was built primarily through the exchange of ideas in specialized academic settings, not through systematic empirical research.

The period 2015-2018 corresponds to the global diffusion of fintech platforms and the generalization of mobile banking services. Research progressively climbs to 10,000-15,000 documents, with a visible diversification of the types of publications: *Journal Articles*, *Conference Proceedings Articles* and *Working Papers appear in increasing proportion*, which signals the gradual maturation of the field and the interest of financial economics applied to these topics.

The COVID-19 pandemic has been a structural catalyst for the digitization of financial services globally, imprinting an unprecedented acceleration of academic output. The annual number of documents exceeds 25,000 in 2024 and reaches around 35,000-37,000 in 2025-2026. This development confirms that the pandemic has transformed digital financial instruments from a niche topic into a cross-cutting research priority, intersecting behavioral economics, public policy, financial inclusion, and information technology. The net dominance of the *Journal Article* as a type of document in this phase (evidenced by the massive weight of the light blue color in Figure 1) attests that the field has reached the maturity necessary for publication in reference journals with a high impact factor.

The exponential growth observed validates both the relevance of the chosen theme and the opportunity to achieve a bibliometric synthesis at this moment, when the volume of literature has reached a critical mass that justifies and requires its systematic mapping.

The second central component of the bibliometric analysis is the co-occurrence network of the authors keywords, shown in Figure 2.

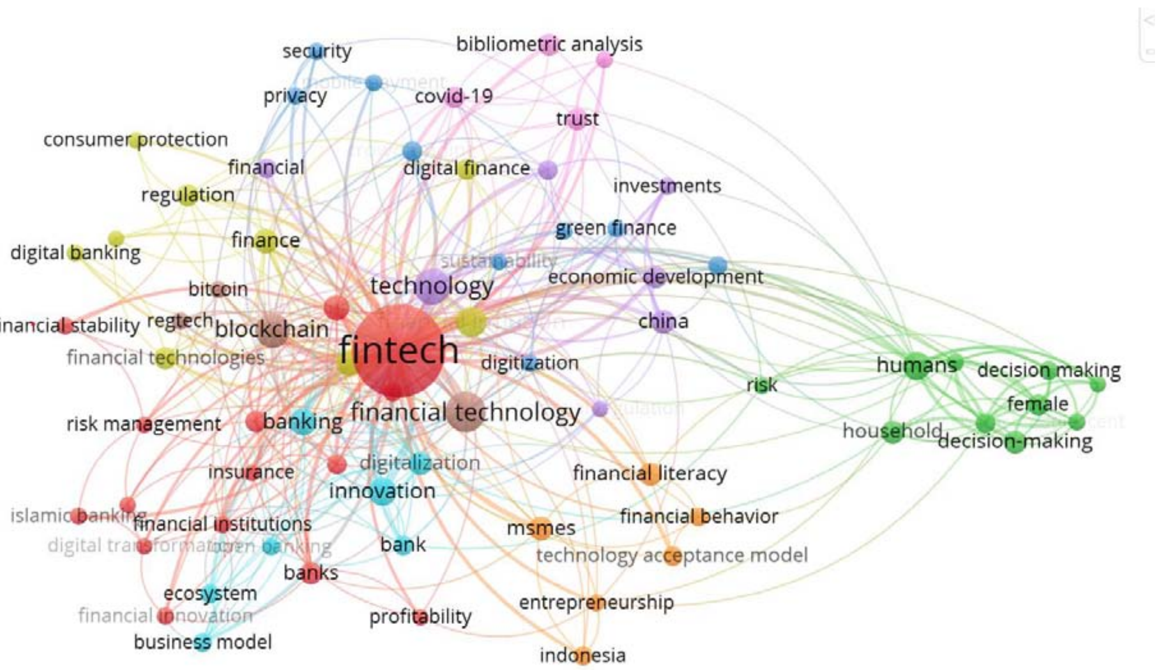

Figure 2. Keyword co-occurrence network in the literature on digital financial instruments and household decision - VOSviewer (Keyword Co-occurrence Network)

Source: Author processing in VOSviewer based on data extracted from Lens.org

The keyword co-occurrence map generated with VOSviewer reveals a complex thematic architecture, organized around a dominant central core and several interconnected peripheral clusters. The visualization analysis allows the identification of six main thematic clusters, described below.

The center of gravity of the entire network is occupied by the „fintech” and „financial technology” nodes, which show the highest frequency of occurrence and the most numerous connections with the other keywords in the network. The clearly superior size of these nodes compared to the rest of the network confirms that fintech is the unifying construct of the analyzed research field. Closely connected to the core are the terms „blockchain", „bitcoin", „banking", „banks", „innovation" and „financial institutions", indicating that a significant proportion of the literature addresses digital financial instruments from the perspective of innovation in the banking system and distributed technology. The presence of „financial stability" and „risk management" in the same cluster suggests a consistent concern for the regulatory and systemic stability dimensions associated with financial digitalization.

A second distinct cluster aggregates the terms „regulation", „consumer protection", „digital banking", „finance" and financial', revolving around concerns about the regulatory framework and user protection in the context of the digitalization of financial services. The presence of this cluster confirms that the literature identifies a structural tension between the speed of fintech innovation and the ability of regulatory frameworks to ensure adequate protection of consumers and households.

The most relevant cluster from the perspective of the theme of this study groups the terms „household", „decision making", „decision-making", „humans" and „female", constituting a thematic node explicitly dedicated to decision-making processes at household level in the context of financial digitalization. The relatively smaller size of this cluster compared to the central core confirms one of the gaps identified in the literature: although fintech as a phenomenon is extensively studied, its specific impact on household decision remains an insufficiently explored and systematized field, explicitly justifying the contribution of the present study. The presence of the term „female" in this cluster suggests that the gender dimension in household financial decision-making processes constitutes an emerging sub-theme with significant research potential.

5. Conclusions

The results of the bibliometric analysis presented in the previous section, viewed in correlation with the theoretical framework and the reviewed literature, allow the formulation of substantial interpretations regarding the state of knowledge in the field and its evolutionary directions.

The structure of the co-occurrence map of the keywords (Figure 2) provides a three-dimensional view of the analyzed topics: the dominant core of fintech and financial technology, the diversified thematic periphery and, significantly, the relatively marginal positioning of the cluster dedicated to household decision-making. This topology confirms the observation made by researchers who explored the impact of digital finance on household financial decision-making, finding that it affects household economic conditions by alleviating credit constraints and improving the accumulation of income and wealth, and strengthens households' risk resilience through digital payments and services. However, the literature that treats the household as a central unit of analysis remains, as highlighted by the VOSviewer map, insufficiently developed compared to the volume of research focused on financial institutions or macroeconomic dynamics.

The results of the present study open up several research avenues with high potential. The first aims at longitudinal empirical studies to track the evolution of household financial behavior as the adoption of fintech tools increases, using panel data to capture the dynamic effects of digitalization. The second strand refers to the in-depth investigation of the gender gap in the adoption and effective use of digital financial instruments, with direct implications for the design of financial inclusion policies.

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