State of the Art in Customer Financial Resilience:

Financial Literacy, Inclusion and Well-Being

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Abstract:

Acknowledging the scarcity of comprehensive summaries in current literature in financial resilience, this systematic review, accompanied by bibliometric analysis, aims to meticulously present both quantitative and qualitative insights into the continually evolving realm of its main concepts specifically: financial literacy, inclusion and well-being. The study encompasses a thorough examination of 281 articles published in peer-reviewed journals from 2008 to 2023. Utilizing citation network analysis, page-rank analysis, co-citation analysis, content analysis, and scrutiny of publication trends, the research endeavors to identify influential works, delineate the intellectual structure of the field, and pinpoint areas requiring further exploration. Notably, some articles contribute to multiple thematic areas, resulting in duplication. The study identifies three primary themes: financial literacy and financial well-being (79 articles), financial literacy and financial inclusion (99 articles) and financial literacy, financial inclusion and well-being (110 articles). The results have led to proposing a model that better understands how consumer financial resilience (CFR) works.

Keywords: Financial Resilience, Financial Literacy, Financial Inclusion, Financial Well-being, Behavior change.

Introduction

In 2022, approximately 1.4 billion adults remained unbanked, with these individuals being particularly difficult to reach, often comprising women, individuals with lower income levels, lesser education, and residing in rural areas (World Bank, 2022). Nevertheless, the number of unbanked individuals has witnessed a significant decline over the past decade, with approximately 2.5 billion adults worldwide not utilizing banks or microfinance institutions for savings or borrowing (McKinsey and Company, 2012). In 2022, the percentage of people with an account in developing countries increased to 71%, up from 42% a decade earlier. Globally, 76% of adults now have an account, compared to 51% a decade ago (World Bank, 2022).

This growth has been predominantly fueled by the adoption of digital payments, which experienced a surge during COVID-19 mobility restrictions and concerns over the sanitary aspects of cash. Notably, one-third of adults in developing countries who paid utility bills directly from an account did so for the first time during the pandemic. In addition to fostering the development of fintech and digital payments, leading to an acceleration of financial inclusion, Covid-19 has also impacted financial behavior, highlighting a growing awareness of the importance of emergency savings to cope with unforeseen situations such as job loss or medical expenses. This has prompted many individuals to reassess their financial priorities. (Gunawan et al., 2022 ; Jin et al., 2021). Covid-19 was not the only major event to impact financial behavior over the past 20 years.

Several events have had an impact and have shaped individuals' financial behaviors, such as the internet bubble crisis, which resulted in a loss of confidence in technological investments and a shift towards more stable investments like real estate. The 2008 subprime mortgage crisis also fostered distrust in the traditional financial system, leading many to reduce debt and adopt a more conservative approach to personal finances. The late 2010s saw the emergence of fintech, further propelled by Covid-19 (Bechlioulis and Karamanis, 2023). Nowadays, individuals increasingly rely on financial services offered by fintech companies, including budget management apps, peer-to-peer lending platforms, and automated investment solutions, due to their ease of use and accessibility. Fintech has also democratized investment in financial markets by facilitating access through investment platforms.

These major financial events have shaped individuals' financial behaviors by influencing their confidence levels, investment choices, and savings habits, while also driving innovation in the financial sector. All of these events and innovation had a positive impact increasing financial inclusion which has generated new economic opportunities, narrowing the gender gap in account ownership and enhancing households' resilience to manage financial shocks, as highlighted by the Global Findex 2021 database.

Recently, Salignac et al. (2019) conceptualized a multidimensional concept of customer financial resilience (CFR) comprising four components: economic resources (an objective measure), financial products and services (related to financial inclusion), financial knowledge and behavior (pertaining to financial literacy), and social capital. Some scholars liken CFR to consumer financial well-being viewing it from both a resource-oriented and subjective perspective (Xiao and Kumar, 2023).

In light of societal advancements and the increasing trends of financial inclusion and digitalization, there is a growing imperative to enhance financial literacy among consumers and society. This is crucial for effectively managing finances, navigating the complexities of the modern financial landscape, and protecting individuals against financial exploitation. Today, the lack of financial literacy carries significant costs. Consumers who fail to grasp the concept of interest compounding often incur higher transaction fees, accumulate larger debts, and face elevated interest rates on loans (Lusardi and Tufano, 2015; Lusardi and de Bassa Scheresberg, 2013). Additionally, they tend to borrow more and save less money (Stango and Zinman, 2009).

The aim of this study is to address the following research questions: *What are the primary dimensions (literacy, inclusion, well-being) of consumer financial resilience? How has the literature evolved over time in defining and elucidating the relationship between these concepts? What directions can future research take to enhance the understanding of consumer financial resilience?*

To address these research questions, we utilized Google Scholar for citation network analysis, PageRank analysis and co-citation analysis along with content analysis and examination of publication trends. On a theoretical level, we could suggest several interesting avenues to guide future research on the concept of CFR, drawing on key findings from the most influential publications regarding its core dimensions: financial literacy, financial inclusion, and financial well-being. On a managerial level, this research offers insights to bank managers and public policymakers on strategies to enhance consumer resilience in a volatile, uncertain, complex, and ambiguous (VUCA) environment. This research is structured into three parts. The first part defines the key concepts of consumer financial resilience. The second part explains the methodology used and analyzes publications discussing the relationships between these concepts. Finally, the third part draws conclusions on the theoretical and managerial implications.

Definition of Key Concepts in Consumer Financial Resilience (CFR)

The term *'resilience'* originated in ecology, denoting the ability of systems to absorb change and maintain relationships among variables (Holling, 1973). It has since been adopted across disciplines such as economics, psychology and behavioral science (Salignac et al., 2019). In the realm of personal and consumer finance, *'financial resilience'* reflects individuals' ability to withstand financial challenges and recover effectively (Tahir et al., 2022). This concept gained prominence in the early 21st century (Jayasinghe et al., 2020; Klapper and Lusardi, 2020; Lowe, 2017; Lusardi et al., 2021; Salignac et al., 2019; Kunicki and Harlow, 2020), coinciding with increased research on *financial literacy financial inclusion, and financial well-being*.

Financial literacy: Definition and conceptualization

Scholars and experts have debated the definition of financial literacy, leading to varied perspectives. The OECD (2014) defines it as knowledge, understanding of financial concepts, and the ability to apply them effectively across contexts for improved financial well-being. Mitchell (2011) simplifies it to basic financial concepts and calculations, while Huston (2010) emphasizes practical application in personal finance. Financial literacy includes skills like budgeting, debt management, and investment strategies correlating with prudent financial decisions (Behrman et al., 2012; Lusardi and Mitchell, 2014). Beyond knowledge, it requires confidence and effective decision-making (Huston, 2010). Okello Candiya Bongomin et al. (2017) evaluate financial literacy by assessing four key dimensions: knowledge, skills, attitudes, and behavior. Enhancing financial literacy is crucial for better financial outcomes, impacting career planning and retirement savings (Hastings and Mitchell, 2020; Hastings et al., 2011). Financial ignorance leads to adverse outcomes, particularly for low-income individuals (Lusardi and Mitchell, 2011). Overall, improving financial literacy promotes both individual well-being and broader financial stability, essential for global policymakers and educators.

Financial inclusion: Definition and conceptualization

Financial inclusion is vital for economic development, enabling households and businesses to access formal financial services responsibly and sustainably within regulated frameworks (Demirguc-Kunt et al., 2017). It empowers individuals to invest in education and entrepreneurship, thereby alleviating poverty and driving economic growth (Beck et al., 2007; Bruhn and Love, 2014). IMF research underscores its role in enhancing macroeconomic growth and improving livelihoods globally (IMF, 2015). Financially included individuals can secure their futures through savings and contribute to financial stability, even during economic challenges (Han and Melecky, 2013). The Global Findex Database has tracked increasing financial services accessibility since 2011, highlighting rising account ownership globally and narrowing gender disparities in developing economies (The world Bank, 2021). Digital payments have accelerated financial inclusion, especially in sub-Saharan Africa, though challenges like uneven service utilization persist between countries like China and the USA (World Bank, 2022). Digitalization enhances access but also introduces risks to financial stability if not carefully managed.

Financial well-being: Definition and conceptualization

Attaining financial well-being is a primary goal for individuals and households. Financial well-being is defined as the ability to meet current and future life needs, feel secure about the future, enjoy life, and handle unexpected expenses (Prendergast et al., 2018). Historically, well-being was seen as contentment with one's financial situation, but the concept has evolved to include both material and non-material dimensions beyond financial status, such as meeting basic needs and feeling secure. Financial well-being is studied across disciplines like economics, financial planning, psychology, and consumer decision-making, but there is no universally accepted definition or measure (Brüggen et al., 2017; Sorgente and Lanz, 2017). Key areas contributing to individual satisfaction include business, finance, home, leisure, health, and environment (Van Praag et al., 2003). Arber, Fenn, and Meadows (2014) define financial well-being as having adequate and secure finances to guard against risks such as unemployment and poverty. Measuring financial well-being can be approached objectively and subjectively. The objective approach uses quantitative indicators like net worth and income (Van Praag et al., 2003; Greninger, 1996; Joo and Grable, 2004; Kahneman and Deaton, 2010; Aggarwal, 2014), while the subjective approach relies on personal evaluations of financial satisfaction (Norvilitis, Szablicki and Wilson, 2003; O'Neill et al., 2005). Factors such as gender, ethnicity, age, income, education, marital status, attitude toward debt, financial behavior, and financial literacy are correlated with financial well-being (Hira and Mugenda, 1999; Adam et al., 2017; Sabri et al., 2012; Huston, 2010; Shim et al., 2009; Taft et al., 2013; Ghazali et al., 2020).

Methodology: Bibliometric analysis

Data was collected through publications in ranked and peer-reviewed journals and organized in an Excel spreadsheet. Google Scholar was used for bibliometric analysis, including citation network, PageRank, and co-citation analyses. Additionally, content analysis and examination of publication trends were conducted. The search encompassed reviewing 10 pages of Google search results, with most articles published between 2016 and 2023. Despite the option to adjust search parameters to find earlier articles (e.g., from 2008, 2011, 2012), there was a noticeable increase in publications in recent years. Data analysis has identified three main themes: "*financial literacy and well-being*", "*financial literacy and financial inclusion*" and "*financial literacy, financial inclusion and financial well-being*". This surge reflects a growing interest in these topics and highlights contemporary challenges in financial literacy, particularly in the context of financial technological innovations introduced by fintech companies and major tech giants like GAFAM (Google, Apple, Facebook, Amazon, and Microsoft).

Topic 1: Financial literacy and Financial Well-being. Our study analyzes 79 articles on financial literacy and financial well-being (Appendix 1). Studies show a positive association between financial literacy and financial well-being (Kamakia et al., 2017). Insufficient financial literacy can lead to poor financial decisions and adversely affect one's financial condition (Chijwani, 2014; Adam et al., 2017). Additionally, individuals with low financial literacy are more susceptible to financial cybercrimes (Lone and Bhat, 2024). Households with higher financial literacy tend to achieve better investment returns, although financial behavior is influenced by factors beyond literacy, such as personality traits (Zhong et al., 2017). Financial literacy includes knowledge, numeracy skills, and the confidence to apply them effectively (Faulkner, 2015; Xiao and O'Neill, 2016), impacting overall financial well-being. Financial self-efficacy mediates the relationship between financial literacy and financial well-being, influencing individuals' risk-taking behaviors in financial decision-making (Faulkner, 2015; Xiao and O'Neill, 2016). Moreover, financial experience, encompassing engagement with various financial products, significantly contributes to better financial management and perceived financial well-being (Hogarth and Hilgert, 2002; Brilianti and Lutfi, 2020). In conclusion, enhancing financial literacy, self-efficacy, and experience can empower individuals to make informed financial decisions, ultimately improving their financial well-being across various contexts.

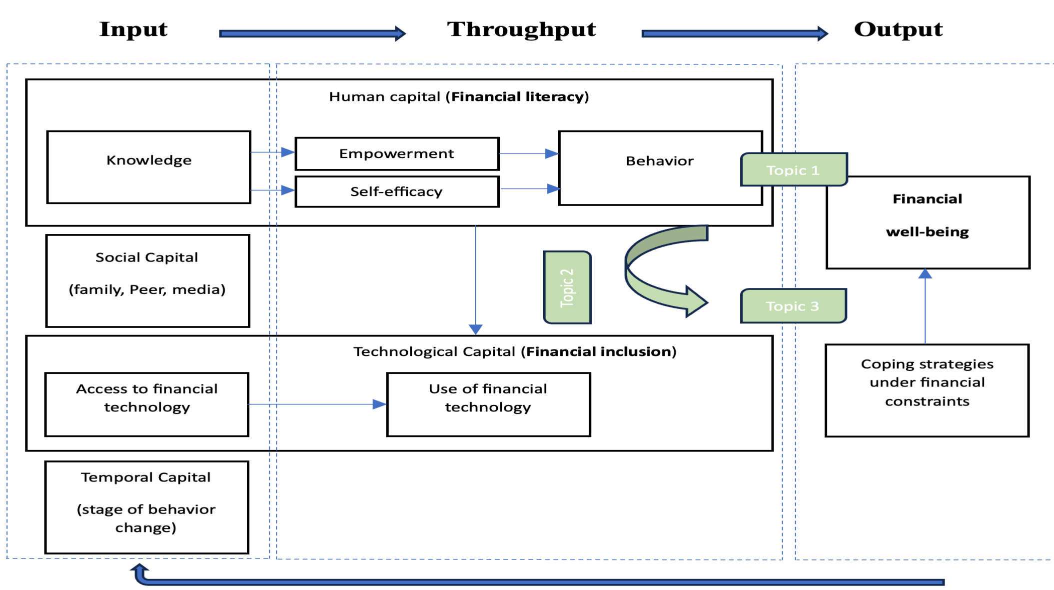
Topic 2: Financial literacy and financial inclusion. Our study examines 99 articles on financial literacy and financial inclusion (Appendix 2). Extensive literature including systematic reviews and meta-analyses (Brody et al., 2015; Duvendack et al., 2011; Fernandes et al., 2014; Goyal and Kumar, 2021; Kaiser and Menkhoff, 2017; Kim et al., 2018; Miller et al., 2014; O'Prey and Shephard, 2014; Pande et al., 2012) highlights the interconnectedness of financial literacy and inclusion. Scholars emphasize that financial inclusion can be approached from both supply-side infrastructure and demand-side financial literacy perspectives (Demirgüc-Kunt et al., 2012; Arun and Kamath, 2015). The literature consistently acknowledges that low levels of financial literacy hinder the utilization of financial services, thereby impairing financial inclusion outcomes at the national level and impeding economic development (Demirguc-Kunt and Klapper, 2012; Honohan, 2004; Al-Sarraf et al., 2018; Lyons and Kass-Hanna, 2019; Grohmann et al., 2018). Moreover, enhancing financial literacy through education and interventions is crucial for promoting financial inclusion with educational institutions playing a pivotal role. In sum, effective financial inclusion strategies must address both access and usage aspects recognizing the pivotal role of infrastructure and informed consumer behavior (Cohen et al., 2011).

Topic 3: Financial literacy, financial inclusion and financial well-being. Our research studies 110 articles on financial literacy, financial inclusion and financial well-being (Appendix 3a et b). Generally, lower levels of financial literacy lead to financial exclusion (Ghosh, 2012). Martinez et al. (2013) identified financial literacy as a crucial determinant of financial inclusion. Additionally, Noor et al. (2020) emphasized that financial literacy positively influences ownership behavior and financial inclusion, a view supported by Morgan and Long (2020) and Grohmann et al. (2018). Financial education is widely acknowledged as pivotal for promoting financial inclusion. Consequently, numerous programs worldwide have been implemented in the last decade to enhance financial literacy and awareness among underserved populations and women. Financial well-being, characterized by financial health and satisfaction, is significantly influenced by financial inclusion. Participation in financial inclusion programs correlates with increased income and asset creation (Swamy, 2014). It also contributes positively to poverty reduction (Hussaini, 2018) and supports socioeconomic empowerment, particularly among urban women (Bhatia and Singh, 2019). Overall, promoting financial inclusion through both supply and demand-side measures is essential for enhancing global financial well-being (Dawood et al., 2019; Nandru et al., 2021).

Conclusion: How could the results of the state-of-the-art research and bibliometric analysis contribute to the development of the concept of consumer financial resilience (CFR)?

Customer financial resilience (CFR) refers to the ability to recover quickly from financial setbacks. Some researchers equate it with consumer financial well-being, while others emphasize its role in understanding vulnerability and its impact on consumer welfare. Additionally, it is utilized to assess financial outcomes, behaviors and capabilities (Xiao and Kumar, 2023). Our biometric analysis allowed us to study the relationships between key concepts of consumer financial resilience, specifically: financial literacy, inclusion, and well-being (Topics 1, 2, 3). The results enabled us to develop the following model (Figure 1) to describe the functioning of financial resilience. This model should be understood as dynamic, akin to Karl Weick's sensemaking process organizational reliability (1990), rather than as a one-dimensional or multidimensional concept. We describe this dynamic using the Input-Throughput-Output (ITO) model. The input includes resources essential for transformation, such as the "knowledge" factor of human capital (a dimension of financial literacy), social capital (family, peers, and media), the "access to financial technology" factor of technological capital (supply-side of inclusion), and temporal capital (stages of financial behavior change: denial, awareness, commitment, fear of relapse) using cognitive processes. Throughputs transform the resources through cognitive processes, namely the factors of empowerment, self-efficacy, and financial behaviors (three dimensions of financial literacy), as well as the "use" factor of financial technologies (demand-side of inclusion). The final outcome of the process is manifested in two results: financial well-being and the ability to manage financial constraints through coping strategies. These strategies also contribute to achieving better well-being. Finally, this model operates as a feedback loop where positive feedback – that is, favorable outcomes – acts as a catalyst, encouraging individuals to further enhance resources or inputs such as knowledge, building a network of experts, and engaging more actively. Conversely, if the feedback is negative – that is, unfavorable outcomes – bank officials and policymakers need to implement more effective educational programs to improve knowledge, access to financial technology and other resources.

Figure 1: Understanding Consumer Financial Resilience (CFR): Mechanisms and Insights



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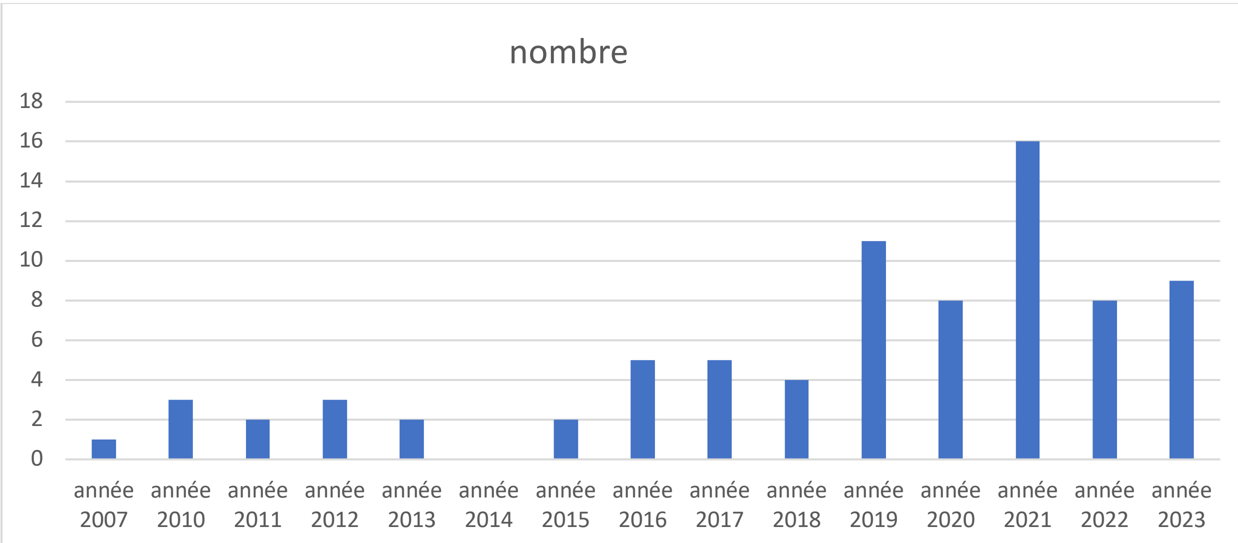
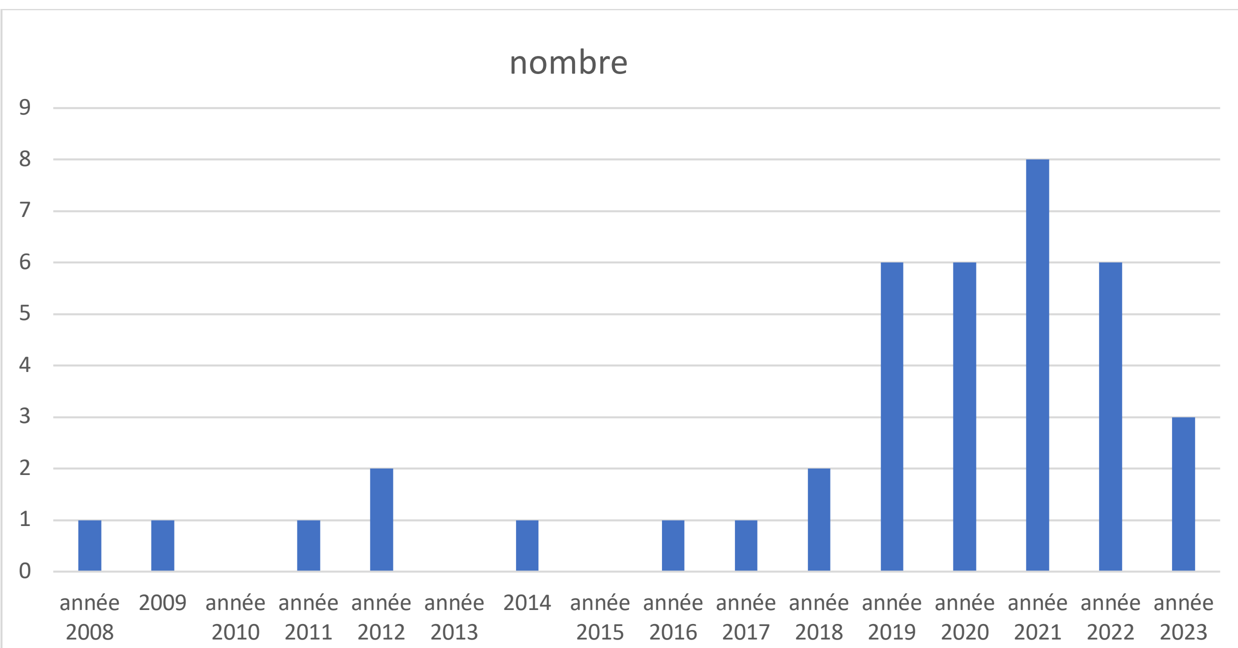
Appendices

Appendix1: Financial literacy and financial well-being

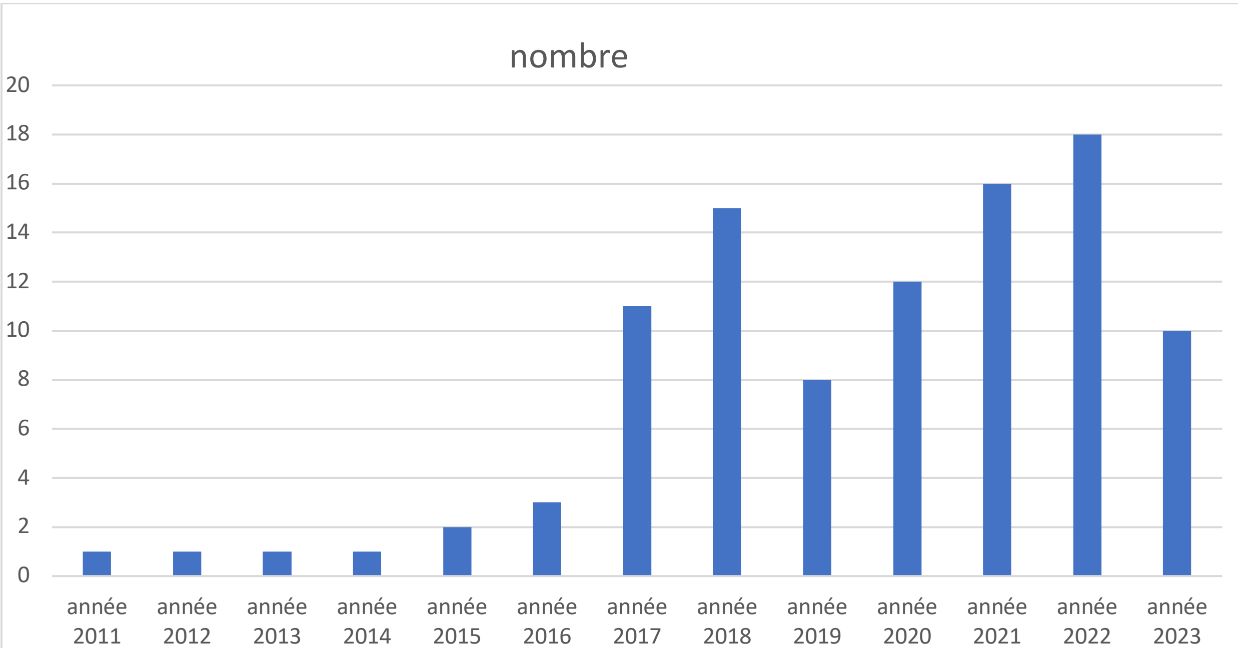


Appendix 2: Financial literacy and financial inclusion

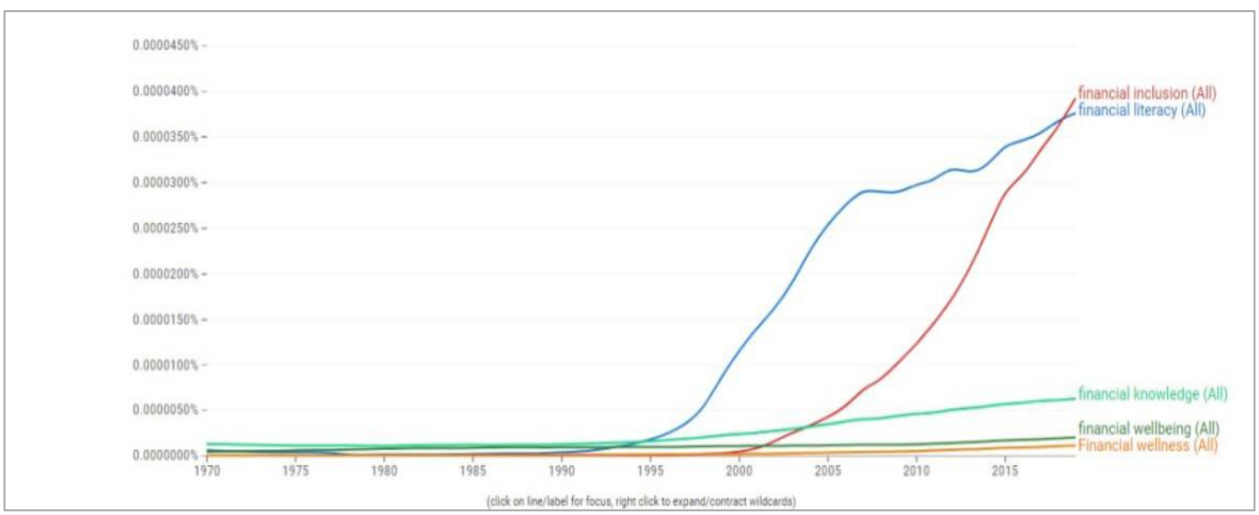


Appendix3: Financial literacy, financial inclusion and financial well-being

Appendix3a: Google Scholar source



Appendix3b: Books Ngram Viewer source



Appendix4: Financial resilience.

Using the same research method on Google Scholar by only searching "financial resilience," as we did with "financial inclusion," "financial well-being," and "financial literacy" before associating those terms together, we quickly ran out of articles directly related to our main topic.

As mentioned earlier, the term 'resilience' originated in ecology, where it denotes the ability of systems to absorb change and maintain relationships among variables. It has since been adopted across disciplines such as economics, psychology, and behavioral science. Consequently, we quickly encountered articles primarily connected to personal and consumer finance.

The most relevant papers related to personal finance using this research method are recent, such as "Financial Literacy and Financial Resilience: Evidence from Around the World" by Klapper, L., & Lusardi, A. (2020), and "Financial Resilience to the COVID-19 Pandemic: The Role of Banking Market Structure" by Danisman, G. O., Demir, E., & Zaremba, A. (2021).

Even on the first page, we encountered articles more related to firms, entrepreneurship, financial network resilience, and the broader economy. For example, "Resisting Resilience" by Neocleous, M. (2013), "Exploring Regional Economic Resilience" by Hill, E., Wial, H., & Wolman, H. (2008), and "Measures of Financial Stability: A Review" by Gadanecz, B., & Jayaram, K. (2008) are focused on these broader aspects.