

# Consumer financial behaviour and financial capability

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## **Abstract**

Financial capability has emerged from financial literacy. Where financial literacy focuses on the financial knowledge of consumers, financial capability extends the research to consider consumers' ability and behavior as key concepts to endear better financial outcomes.

Research in this area has identified who is more (less) likely to be financially capable and what financial or life outcomes relate to better financial capability. However, research on financial capability needs to refocus to improve the value of this concept. In this systematic literature review, we identify current trends in financial capability and point out future topics that researchers could pursue.

## **Introduction**

Having stable financial health is vital to cope with future financial insecurity, especially in times of financial crisis or natural calamities. Research showcasing the positive effects of money management skills is steadily increasing (Goyal & Kumar, 2021; Goyal, Kumar, & Xiao, 2021). One of the factors to inculcate money management skills in consumers is financial capability and literature on consumer finance has highlighted the importance of financial capability for financial wellbeing (Xiao, Chen, & Chen, 2014). However, how financial capability is defined and measured has changed over time in the literature. An objective of this chapter is to show different researchers' viewpoints on how they defined and measured financial capability to show progression in the concept. The second objective of this chapter is to review research on financial capability to identify the current publication trends in financial capability. This review will indicate who is more likely to be financially capable, what the concept of financial capability relates to, and research on financial capability amongst the youth. Finally, this chapter will set a research agenda for future research on financial capability by outlining key research questions that research on financial capability should address to progress knowledge in this area. Fundamentally, we will address the following research questions (RQ) in this chapter:

RQ1: What are the prevailing definitions of financial capability in the literature?

RQ2: What are the current publication trends in financial capability?

RQ3: What are the gaps and areas for future research on financial capability?

## **Literature review method**

We follow the systematic literature review method as a reliable scientific technique in order to discover research on financial capability. We retrieved our data in January 2022 from the Web of Science because this search engine does not omit any research published in top-tier

journals. The Web of Science is a reliable database available for researchers worldwide. We used the following comprehensive search string to search for all the relevant publications:

“financ\* capability” OR “consumer financ\* capability” OR “individual financ\* capability”  
OR “household financ\* capability” OR “financ\* capability behavi?r\*”

We searched these terms in the title, abstract, or keywords of the research published until January 2022. The search string yielded 517 articles. We did not restrict our search to any time span with the intent to accumulate the total stock of knowledge on financial capability. Filtering this search to the English language omitted 13 articles, and including only articles, early access, book chapters, and review articles omitted a further 97 articles. Afterwards, we examined the abstracts of the remaining 407 articles and identified 108 of these articles as relevant for this literature review. The articles included in our review were published between 2007 to 2022. Finally, we read the 108 shortlisted articles and deemed 19 papers to be irrelevant to our topic. Additionally, we examined the reference list of the 89 articles and found a further six articles relevant to the scope of this review, amounting to a total of 95 articles<sup>1</sup>. The final 95 articles are those that focused on the financial capability of consumers, including individuals, households, or families.

### **Defining and measuring financial capability**

The definitions and measurement items of financial capability vary across research. However, one aspect that all definitions have in common is the need to extend the concept of financial capability beyond the concept of financial literacy—three popular definitions of financial capability attempt to do this. Firstly, Atkinson, McKay, Collard, and Kempson (2007) argued

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<sup>1</sup> Given the limited words requirement to write this chapter, only the most relevant articles out of these 95 are included in this chapter. The authors have a list of these 95 articles with them that can be produced on request.

that financial capability is more complex than basic skills implied by the term ‘literacy’ and argued it should include four components: managing money, planning ahead, choosing products, and staying informed. Research has elaborated on these four components and found statistical validity in them (Luukkanen & Uusitalo, 2019; Tahir, Ahmed, & Richards, 2021). Atkinson et al. (2007) definition and approach propose that financial capability is a behavior. Another definition offered by Sherraden (2013) is that financial capability should be conceived of as both ability and opportunity (financial inclusion). Sherraden (2013) uses the term financial literacy to denote consumers’ ability to act, and financial inclusion signifies an opportunity to act. The financial capability model of Sherraden (2013) was an advanced form of the financial capability concept provided by Johnson and Sherraden (2007). Several research papers have tested and validated this financial capability model, where the authors argue a need to build financial capability among different classes of consumers (Despard & Chowa, 2014; Despard, Friedline, & Martin-West, 2020; McGarity, Okech, Risler, & Clees, 2020; Yunju Nam, Lee, Huang, & Kim, 2015).

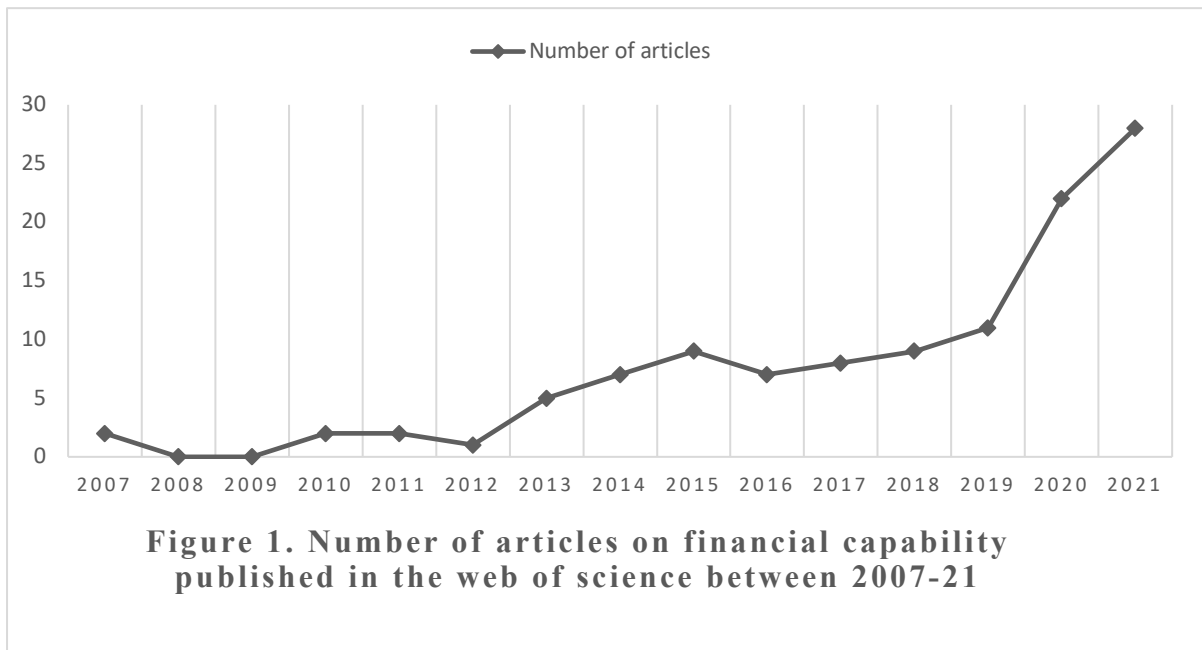
A third approach is to conceive financial capability as knowledge, ability, and behavior. Xiao et al. (2014) defined and measured financial capability as an index of objective and subjective financial literacy, perceived financial capability (financial self-efficacy), and desirable financial behavior. Xiao et al. (2014) claimed that this version of financial capability is an extension to the previous versions presented by Atkinson et al. (2007) and Taylor (2011). Taylor (2011) referred to financial capability as a consumer’s ability to manage and assume responsibility for their finances. A large amount of research has adopted this third definition of financial capability (Potocki, 2019; Xiao, Chen, & Sun, 2015; Xiao & Kim, 2021; Xiao & O’Neill, 2016, 2018, 2021; Xiao & Porto, 2017, 2021; Xiao, Porto, & Mason, 2020).

In summary, we have three types of financial capability concepts in the literature: (1) the behavior focused (Atkinson et al., 2007), (2) the ability-opportunity focused (Johnson & Sherraden, 2007; Sherraden, 2013), and (3) the knowledge-ability-behavior focused (Xiao, 2016; Xiao et al., 2014).

### **The current publication trends in financial capability**

As we limited our search to the Web of Science database, we noticed that the research on consumer financial capability came into light in 2007 after the publications of Atkinson et al. (2007) and Johnson and Sherraden (2007).

Out of the 95 shortlisted articles, 62 pertain to the developed countries, and 21 incorporate youth, including students as their respondents. Almost nine articles study special populations, including disabled and vulnerable consumers. Furthermore, we noticed increasing research on financial capability in recent years. Figure 1 below depicts the year-wise trend on the financial capability research.



## **Who is financially capable?**

One of the main concepts addressed in the literature is to research the characteristics of consumers in relation to being financially capable. The demographic factors of age and gender were initially investigated extensively. Generally, the research found that as age increased, so did the amount of financial capability (Atkinson et al., 2007; Okech, Howard, Matthew, & Purser, 2020; Taylor, 2011; Xiao et al., 2015). However, this relationship did not apply to low-income older Asian immigrants to the United States of America (US), where younger generations had higher financial capability than older generations (Yunju Nam et al., 2015). The results for immigrants suggest that age is the only factor in that it pertains to experience in a financial system. Those who relocate to a new country cannot always transfer their financial capability with them.

In relation to gender, there are mixed results for financial capability. Some research documents that there is a gender gap in the knowledge aspect of financial capability, with men having greater financial capability than women (Taylor, 2011). Okech et al. (2020) find that gender differences in financial capability are age-dependent, where younger women have higher financial capability than younger men, but the inverse occurs for older people. Robson and Peetz (2020) investigate possible explanations for the gender gap in financial capability by incorporating sociodemographic and psychological variables. They find that when gender differences in the sociodemographic and psychological variables are considered, gender is no longer a predictor in three scales of financial capability. The two scales where gender differences persist are “choosing products” and “staying informed”, and these are related to the market for financial services. Overall, Robson and Peetz (2020) research suggests that gender differences in financial capability may occur when consumers interact with the financial services market where men and women have different experiences in this environment. Research on the provision of financial advice shows that a gender imbalance

exists in this industry and could lead to different experiences for men and women (O'Dwyer & Richards, 2021).

Another aspect that relates to financial capability is socio-economic factors, where income, in particular, is a major aspect of financial capability. The general relationship is that those with a higher income have the higher financial capability (Robson & Peetz, 2020; Tahir et al., 2021). However, research on financial capability does not explicitly engage in this concept. Often studies incorporate income as a control variable (Robson & Peetz, 2020; Xiao & O'Neill, 2021), incorporate income as a measure of financial capability (Taylor, 2011), or focus on certain income groups (Yunju Nam, Sherraden, Huang, Lee, & Keovisai, 2019; Potocki & Cierpial-Wolan, 2019; Rochelle et al., 2017; West & Friedline, 2016). These approaches to incorporating income somewhat sideline an interesting facet of financial capability. Robson and Peetz (2020) find that household income rather than individual income has more relationship with financial capability, suggesting that this relationship is not as straightforward as once thought.

Finally, a major trend is a relationship between financial education and financial capability, whereby those who have learned aspects of personal finance will be more financially capable. As mentioned above in the definition section, an area of research on financial capability incorporates financial literacy (the outcome of financial education) into the measuring items of financial capability (Xiao et al., 2014), demonstrating the interconnectedness between these concepts. However, other research treats financial capability as a separate concept from financial literacy yet finds a connection between these concepts. Park et al. (2021) find that financial literacy leads to financial capability. Other research finds that financial literacy is linked to financial capability via a third concept. Tahir et al. (2021) investigate the relationship between financial literacy and financial capability, finding that if a consumer is non-impulsive, then financial literacy increases financial capability. Amonhaemanon and

Vora-Sitta (2020) find that the financial literacy to financial capability relationship is mediated by a consumer's financial attitude, whereas Çera, Khan, Mlouk, and Brabenec (2021) show that financial behavior mediates this relationship. Overall, financial literacy is related to financial capability either by definition, direct routes, or mediated by an additional construct.

### **What does financial capability relate to?**

The value of research on financial capability depends on the idea that those who are more financially capable will have better financial outcomes. This is done in two ways. Firstly, a growing amount of research shows that financial capability is inherently related to financial wellbeing (Fan & Henager, 2021; Sithole, Mort, & D'Souza, 2021; Tahir et al., 2021; Xiao & Porto, 2021). Research to note is that of Xiao and Porto (2021), which shows that financial capability is of value for the most vulnerable consumers. Additionally, Tahir et al. (2021) show a complex model of how financial capability, together with financial literacy and non-impulsive behavior relates to financial wellbeing. The relationship between financial capability and financial wellbeing has also been documented amongst those with disabilities (McGarity et al., 2020). Also, financial capability, as a part of financial resilience, leads to better life outcomes for indigenous Australians (Jayasinghe, Selvanathan, & Selvanathan, 2020).

A second approach to researching the value of financial capability is with better or improved financial behaviors. Research has shown that people with higher scores in financial capability adopt better financial behaviors, including better planning for retirement (Youngwon Nam & Loibl, 2021), less debt delinquency (Xiao & Kim, 2021), and improved budgeting to build resilience against financial shocks (French, McKillop, & Stewart, 2020). Research also suggests that financial capability is important for low-income households as it mediates the

relationship between economic hardship and wellbeing (Ranta, Punamaki, Chow, & Salmela-Aro, 2020), is associated with lower food insecurity (Gilbert & Ashley, 2020), and reduces the risk of material hardship (Huang, Nam, Sherraden, & Clancy, 2016). Overall, financial capability research has demonstrated that this concept is related to improved financial behaviors and outcomes.

### **Financial capability of the youth**

A major theme of research on financial capability is the focus of financial capability in the youth. This research can focus on children (Batty, Collins, & Odders-White, 2015), students (Kagotho, Ssewamala, Patak-Pietrafesa, & Byansi, 2018; Noreen, Abbas, Shabbir, & Al-Ghazali, 2019; Xiao et al., 2020; Zhu, 2018), or young adults (Salazar, Lopez, Spiers, Gutschmidt, & Monahan, 2021). The research shows that the development of financial capabilities can occur from lifestyle-based factors. For example, leaving home (Czar, Gilbert, & Scott, 2021), living independently (Salazar et al., 2021), and being provided with an allowance are all associated with increased financial capabilities. This research points to significant life events in which financial capabilities can be refined and improved. Other research shows that financial capability can be developed by a direct intervention such as financial education (Xiao & Porto, 2017; Zhu, 2020), changing cognitive approaches to finances (Luukkanen & Uusitalo, 2014, 2019), and through parents' socialization of children into personal finance (Zhu, 2018). This band of research suggests that direct intervention of the youth may also be a way to develop financial capability.

### **Future research agenda**

This section addresses the future research agenda by suggesting that financial capability research can focus on three paths: improving the concept of financial capability, improving

the financial capability of different people, and financial capability over time and around the world.

### **1. Focusing on the concept of financial capability**

Financial capability has needs to be established as a unique concept in the paradigm of consumer financial research (Goyal & Kumar, 2021). The emergence of financial capability involved differentiating it from financial literacy by incorporating abilities and behavior. However, recent research has sought to include financial literacy within financial capability (Xiao, 2016). Thus, financial capability needs to firmly be established as either: as a concept distinct from financial literacy, as a concept connected to financial literacy, or a concept that should replace financial literacy. The latter of these options seems the least likely to occur due to the huge volume of research on financial literacy compared to financial capability (Goyal & Kumar, 2021). Therefore, research in the future needs to clearly define financial capability as a concept in relation to financial literacy. For this purpose, a specific theoretical base of financial capability needs to be established, which could help distinguish it from other related concepts.

RQ1. How are financial literacy and financial capability different?

RQ2. What is the theoretical rationale of financial capability?

Financial capability is also related to financial behaviors (Miller, Reichelstein, Salas, & Zia, 2015; Xiao, 2016; Xiao et al., 2014; Xiao & O'Neill, 2018). Fan (2021) finds a positive association between financial capability and financial behavior, whereas Çera et al. (2021) find a mediating role of financial behavior in the association between financial literacy and financial capability. Fernandes, Lynch, and Netemeyer (2014) suggest a very small positive relationship between financial literacy and financial behavior. Given these mixed results, we

suggest future research to bring clarity between financial literacy, financial capability, and financial behaviors.

RQ3. What differentiates financial behavior from financial literacy and financial capability?

Finally, studies have found the mediating role of financial capability in the association between financial literacy and financial wellbeing (Tahir et al., 2021), financial knowledge and financial satisfaction (Çera, Khan, Belas, & Ribeiro, 2020), economic hardship and wellbeing (Ranta et al., 2020), financial literacy and financial access (Kagotho et al., 2018), financial education and financial satisfaction (Xiao & Porto, 2017). Furthermore, Gilbert and Ashley (2020) found the moderating role of trait hope in the association of financial capability with perceived access. Given these mediated moderated mechanisms, we propose the following research questions for future research:

RQ4. What established concepts does financial capability mediate or moderate?

## **2. Improving the financial capability of consumers**

The literature suggests interventions to improve consumer financial capability (Birkenmaier, Maynard, & Kim, 2019; Friedline & West, 2016). One of the interventions is parental socialization (Curran, Parrott, Ahn, Serido, & Shim, 2018; Zhu, 2018). We recommend extending this research to study educational interventions. Previously, Xiao and Porto (2017) found that financial education influences financial capability, which in turn, has an effect on consumer financial satisfaction. This suggests further studying the types of educational interventions (like emotional or behavioral interventions) needed to improve the levels of financial capability.

RQ5. What types of educational interventions develop consumer financial capabilities?

An indirect way to improve the financial capability of consumers is to show the value of this concept. To a certain extent this research has begun because a positive association of financial capability with life satisfaction and wellbeing has been found (Fan, Chatterjee, & Kim, 2021; Serido, Shim, & Tang, 2013; Sithole et al., 2021). However, only a few research articles focused on studying mental wellbeing. Taylor, Jenkins, and Sacker (2011) studied the association between financial capability and the psychological health of men and women. Białowolski et al. (2021) found a positive relationship of financial capability with mental and physical health. However, their study was limited to the insurance company employees. We believe that future research should expand on this domain of wellbeing and study whether financial capability improves mental wellbeing or mental wellbeing helps develop financial capability.

RQ6. What is the relationship between financial capability and mental wellbeing?

Recent research introduced the concept of digital financial capability, which is defined as a consumer's ability to use digital financial products and services (Luo, Peng, & Zeng, 2021; Luo & Zeng, 2020). This is an interesting emerging concept and found to have been associated with improved entrepreneurial performance (Luo et al., 2021; Luo & Zeng, 2020). A similar research domain is to explore a link between financial technologies (FinTech) and financial capability (Bunnell, Osei-Bryson, & Yoon, 2020; Çera, Phan, Androniceanu, & Çera, 2020). Based on this new research on financial capability, we propose the following question:

RQ7. How does the use of financial technologies improve consumer financial capability?

### **3. Financial capability over time and around the world**

Research has shown to a certain extent that aspects of financial capability differ based on socio-demographic variables and different life stages (Okech et al., 2020). Financial

capability is developed as a youth matures, and the financial capability of low income will be different from the financial capability of high-income families. To further investigate these findings, research on financial capability needs more longitudinal data. This data will ascertain patterns in financial capability over a life time and within different economic groups. It will also allow research into how financial capabilities developed at one life stage can influence financial behaviors and outcomes at a later life stage. The research questions could be:

RQ8. How does financial capability evolve given different socio-demographic contexts?

RQ9. To what extent does financial capability in early life lead to better outcomes in later life?

Additionally, our review found a limited amount of research exploring financial capability in relation to retirement preparedness (Youngwon Nam & Loibl, 2021). Both financial capability and preparing for retirement are crucial ingredients of the financial planning industry. However, most people do not obtain financial advice and will rely on their own financial capability to prepare for retirement. The question is:

RQ10. What sort of financial capabilities are needed for retirement preparedness?

RQ11. To what extent does financial capability lead to better retirement outcomes?

Some research covered the financial capability of immigrants, where the researchers found lower levels of financial capability among immigrants that lead to considerable financial loss (Huang, Nam, & Lee, 2015; Yunju Nam et al., 2015; Yunju Nam et al., 2019). This research tends to focus on immigrants to the USA. However, other countries that have immigrants (for example, the United Kingdom, Australia, Canada, Germany, etc.) will likely encounter financial capability issues of their immigrants. Additionally, this research points to studying the effects of race/ethnicity and culture on financial capability (Çera, Khan, et al., 2020). It

will help financial institutions and governments to develop strategies for the betterment of immigrants.

RQ12. What level of financial capability occurs amongst recent immigrants?

RQ13. What is the association of race/ethnicity and culture with financial capability?

Each country has a unique culture, and consumers' experiences differ in different life domains. Yet, the concept of financial capability has largely been established in the context of developed countries. Out of the 95 shortlisted articles for this review, 44 pertain to the US. Therefore, we recommend future research to look at the financial capability status of people living in developing countries.

RQ14. How important is the concept of financial capability to consumers in developing countries?

## **Summary**

In this chapter, we identified three versions of financial capability: the behavior focused, the ability-opportunity focused, and the knowledge-ability-behavior focused. Despite the different versions of financial capability, a unanimous research outcome is that improving financial capability helps develop better money management skills and leads to better financial and life outcomes. Since the research on financial capability is still relatively new in the field of consumer finance, we have suggested some research questions that future research should address for bringing value addition to this concept.

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