

Enhancing financial decision-making using visual imagery

Research by Voya's Behavioral Finance Institute for Innovation

Introduction

The use of financial guidance can help consumers navigate complex decisions related to their savings, investments, and other financial topics, and it has been shown to improve investment performance, increase portfolio diversification, and increase financial literacy.¹² Despite the extensive amount of evidence that demonstrates a positive impact of financial guidance on financial wellness outcomes³ people don't always use the financial help that is made available to them by their employers.

There are many barriers to both seeking and using financial guidance. Common barriers to seeking financial advice include concerns about associated costs, misunderstanding the value proposition, the motivation to save time, embarrassment about one's financial situation or about appearing incompetent, social norms, low financial literacy, and not trusting financial advisors.⁴ There is therefore a need for evidence-based and innovative interventions to support employees in seeking financial help.

Visual imagery can help increase the visibility and adoption of financial help services. Beyond the demonstrated ease with which visualizations captivate our focus and direct our attention^{5 6 7} additional benefits of leveraging this content form include its ability to act as a visual cue that can be quickly recognized and interpreted without relying solely on text, particularly when people skim copy. Symbolic imagery, such as icons, helps reduce cognitive load and facilitate decision-making by simplifying complex ideas in a glance. It can also improve accessibility by providing information intuitively, particularly for individuals with cognitive impairments or language barriers, and by allowing for descriptive text readable by screen readers and individuals with visual impairments.⁸

The experiment

To examine the effectiveness of imagery in promoting financial guidance adoption, researchers Christelle Ngnoumen and Kim Nguyen conducted a lab experiment in which they randomized the symbolic imagery presented alongside a guidance prompt during a hypothetical investment allocation task. Symbolic imagery was created to address five common barriers to financial help-seeking including financial literacy, overconfidence, embarrassment, the motivation to save time, and social norms. Each image was evidence-based and informed by factors known to address each of the five barriers. In an online experiment designed to simulate the digital experience of investment selection during retirement plan enrollment, the researchers observed how imagery addressing barriers to financial help-seeking would influence financial decisions.



Financial Literacy



Overconfidence



Embarrassment



Time



Prescriptive Norms

The results

The researchers established that imagery that addresses barriers to financial help-seeking can influence decisions to adopt financial guidance. An icon designed to address overconfidence bias was most associated with financial guidance adoption compared to control, and this effect was pronounced among individuals who demonstrated high levels of overconfidence.

The researchers also determined that the use of guidance was associated with fewer investment mistakes on the hypothetical investment allocation task. More specifically, individuals who used guidance demonstrated greater diversification and a lower proportion of overly aggressive portfolios compared to those who did not use it.

Key takeaways

These findings highlight three opportunities for improving benefits design.

- Leveraging visual imagery to overcome inaction: Benefits programs can encourage action by using visual imagery that specifically addresses barriers to engagement.
- Addressing overconfidence in financial decision-making: Overconfidence bias is very common in financial decision-making. Overconfident individuals may believe they don't need guidance, leading to suboptimal investment choices and low benefits utilization. Benefits designers can develop custom messages and visuals tailored to confident employees that guide them to be more reflective, to leverage guidance, and to make more informed decisions.
- Enhancing 401(k) enrollment and investment allocation decisions: This research shows that exposure to guidance can improve investment decisions during the 401(k) enrollment process.

¹Collins, J. M. (2012). Financial advice: A substitute for financial literacy? *Financial Services Review*, 21(4), 307-322.

²Mihaylov, G., Yawson, A., & Zurbrugg, R. (2015). The decision to seek advice in the self-directed retirement fund industry. *Applied Economics*, 47(32), 3367-3381.

³Lusardi, A., & Messy, F.-A. (2023). The importance of financial literacy and its impact on financial wellbeing. *Journal of Financial Literacy and Wellbeing*, 1(1), 1-11.

⁴Westermann, S., Niblock, S. J., Harrison, J. L., & Kortt, M. A. (2020). Financial advice seeking: A review of the barriers and benefits. *Economic Papers: A Journal of Applied Economics and Policy*, 39(4), 367-388.

⁵Carrasco, M. (2011). Visual attention: The past 25 years. *Vision Research*, 51(13), 1484-1525.

⁶Kahneman, D. (2011). *Thinking, fast and slow* (Vol. 1). Farrar, Straus and Giroux.

⁷Kastner, S., & Ungerleider, L. G. (2000). Mechanisms of visual attention in the human cortex. *Annual Review of Neuroscience*, 23, 315-341.

⁸Homer, P. M., & Gauntt, S. G. (1992). The role of imagery in the processing of visual and verbal package information. *Journal Of Mental Imagery New York-International Imagery Association*, 16, 123-123.

This report is for educational purposes only. Each plan must consider the appropriateness of the investments and plan services offered to its participants.

Any financial services firm that adopts this strategy will need to ensure they are complying with regulatory requirements as well as firm policies around communications with the public and the use of AI.

FINRA has routinely commented on problematic images in communications with the public that could be considered promissory or misleading. Any images created using this strategy must be reviewed and receive approval prior to use.

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