

Digital Financial Literacy

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Abstract

An individual with digital financial literacy has the knowledge and skills to use digital devices to make better financial decisions. The pervasiveness of financial technology (fintech) in the daily lives of adults in the United States creates digital literacy training and educational opportunities. This report from the field offers a brief literature review, a discussion on digital financial literacy, and the importance of fintech adult education. Our goal is to guide educators and others on how foundational knowledge on digital technologies in relation to financial literacy education can prepare adult learners for the use of fintech. Expanding the use of technology to financial literacy education and practices are as crucial as reading, writing, and numeracy in today's digital economy.

Keywords: fintech, financial literacy, financial well-being

Technology improvements and the growth of technologies in our everyday lives have the potential to improve the overall well-being of society for those with both access and skills (Brey, 2018). For example, the personal computer or smartphone provides us with opportunities and information in the acquisition of goods and services on platforms such as Amazon and other retailers. However, imagine the lives of those lacking the knowledge or ability to properly use the technology or access the information. The use of financial technology (fintech) has elevated digital financial literacy to an important topic for adult educators as a crucial literacy. Fintech incorporates both the technology and delivery of financial services beyond traditional methods (Goldstein et al., 2019). Further, fintech has been pivotal to innovation in the financial services industry dramatically influencing our economic

lives. Fintech allows for a plethora of options to users in terms of online banking, mobile payments, app-based investing platforms, and online shopping for a broad range of goods and services (Goyal & Kumar, 2020).

Educators and practitioners should impart digital proficiencies, and sound financial principles, to address the needs of the 21st-century learner – one who can demonstrate financial skills, not only in the live customer service environment but more importantly, in the online or virtual environment. This move to fintech provides opportunities for adult educators to equip individuals and families with the tools to make better financial decisions and meet their financial obligations. Hence, expanding the use of technology in financial literacy education and practices are as crucial as reading, writing, and numeracy in today's digital economy.

Background

Financial Literacy as a Multi-Dimensional Concept

According to Zait and Berteau (2014), financial literacy incorporates multiple dimensions, where the focus can be on the knowledge itself and/or the ability to gain and use the knowledge. Digital literacy can be defined as using technologies to find, create, evaluate, and communicate information, consequently requiring both cognitive (knowledge) and technical skills to use the technology (Alexander et al., 2016). The Organisation for Economic Co-operation and Development (OECD, 2018) described various aspects of digital financial literacy, including knowledge of digital financial products and services, awareness of digital financial risks, and consumer rights and redress procedures. These definitions illustrate the plurality and significance of the concepts, as they all require knowledge and literacy to use them effectively.

Prevalence of Fintech

Due to the prevalence of fintech and its impact on the financial services industry, opportunities exist to expand financial literacy programs. According to Mention (2019), the fintech global economic investment grew from 2017 to 2018, increasing from nearly \$12 billion to over \$50 billion. Collins and Urban (2019) believed that the expansion of fintech could provide tools to allow individuals to be more responsible for their economic well-being. Perceived financial well-being can be defined as the conditions under which a person can meet their financial obligations and envision a positive financial future (Collins & Urban., 2019).

Worldwide, most adults can access some form of digital device, whether it be a smartphone, tablet or personal computer, even if limited (Vogels, 2021). One survey found that individuals use

mobile apps more than other types of banking services (Panos & Wilson, 2020). Online access allows financial information to be available at an individual's fingertips; however, adults often do not have the digital or financial literacy skills to use the applications effectively (Panos & Wilson, 2020). Further, if individuals do not understand financial principles, they will not be able to benefit from the increased access to financial information (World Bank, 2018). Thus, financial literacy can be enhanced by encouraging and facilitating digital financial education and practice.

Areas of Need

The challenge for developing financial competency using fintech is twofold:

1. generally there is an overall lack of financial literacy among adults (Lusardi, 2019) and
2. fintech requires some technological shrewdness (Senyo & Osabutey, 2020).

Both challenges must be met for individuals and families to access fintech and to make better financial decisions. Within each of these areas, there are separate areas of consideration, including types of banking, internet access, adult learning environments, and technology utilization behaviors.

The Unbanked and Underbanked

The unbanked are consumers that do not use traditional bank methods (Gross et al., 2012). These unbanked consumers frequently use alternative banking services such as payday lending or vehicle title loans. Approximately 11% of U.S. consumers are unbanked and another 11% are underbanked, with these consumers *“more likely than fully banked consumers to have lower incomes and be younger, minority, female, unmarried, unemployed, and unwilling to take financial risks”* (Gross

et al., 2012, p. 4). The researchers estimated that 63% of unbanked and 91% of the underbanked consumers own smartphones (Gross et al., 2012). Therefore, fintech mobile applications could provide access to banking products and services that are significantly cheaper than the short-term, predatory alternatives. Adult educators could join with organizations to improve financial practices for this consumer demographic. For instance, groups such as *Cities for Financial Empowerment Fund* and the *BankOn* national program support moving unbanked and underbanked into safe secure bank accounts in the United States, thereby providing safer financial environments.

Basic Financial Literacy

The United States holds the world's largest economy; however, according to the Standard & Poor's Global Financial Literacy Survey (2014), it ranked 14th in the number of adults who are financially literate (Klapper & Lusardi, 2020). The U.S. adult financial literacy rate is at 57%, only slightly higher than that of Botswana at 52%, a country that is significantly less-developed (Klapper & Lusardi, 2020.). Clearly, although adults in the United States may use digital devices to access financial information, there is still a lack of financial literacy and a potential to use digital information to improve financial decision-making.

Internet Access

Although the lack of internet access (the Digital Divide) has been noted for several decades, inequality in broadband access has come to the forefront during the COVID-19 crisis (World Bank, 2020). In rural America, there are still places where internet capability is limited. Thus, even if the household has access to a smartphone, data costs and limited bandwidth frequently decrease the value of fintech applications (Sahay et al., 2020). However, creative responses, such as school

buses as mobile access points (Wargo et al., 2020), and recent funding to extend internet connectivity to rural areas (Pew, 2020) create opportunities to provide self-directed financial literacy education.

Adult Learning Environments

Self-directed learning is any form of learning in which individuals have primary responsibility for planning, implementing, and evaluating their learning effort (Knowles, 1975), and is the method most often used by adults and, therefore, essential to adult education (Loibl & Hira, 2005). By being able to choose objectives, set schedules, identify preferred strategies, and evaluate training, adults feel more in control of their learning. Research has shown that considerable adult learning occurs outside formal contexts, in places such as the home and workplace (World Bank, 2018). Enabling adult learners to become lifelong, self-directed learners is especially important when formal classroom instruction is not available or practical (Peeters et al., 2014). Loibl and Hira (2005) found that educational materials using four different media types, including the Internet, were used to assess the effect of financial management practice. They found that self-directed, online financial learning was significantly associated with better financial management practices. These results suggest that self-directed learning efforts can meet the challenge of keeping current on changing financial services no matter what the technology available.

New Technology Utilization

Online financial simulations are now common and have proved to be successful in traditional financial literacy education (Kasman et al, 2018). Simulations can dramatically affect learners' confidence with both fintech and finances when used with a mobile budgeting application, instead of the traditional pencil and paper activities (Panos

& Wilson, 2020). Financial simulations can also help adults understand how personal behaviors and decisions affect an individual's sense of financial well-being (O'Neill, 2008).

Despite the availability of such products, development of additional tools targeted at low literacy adults are still needed (Mahendru, 2021). Access to financial services via fintech commands higher financial and digital literacy levels to effectively benefit adults and produce the desired financial results. For example, fintech knowledge is critical to avoiding fraud schemes and other concerns such as discriminatory treatment (Panos & Wilson, 2020). As banks and other fintech firms create digital finance products, there must be parallel educational program development to develop such literacies and create self-directed learners.

Fintech Behaviors

Fintech applications and tools are not without problems. Ease of access may lead to damage by triggering impulsive behaviors. For example, mobile apps can lead to faulty and dangerous decisions by creating emotional states of impulse buying or time-pressured situations (Reyna et al., 2018). Panos and Wilson (2020) provided evidence that mobile users are more likely to engage in impulsive purchasing behavior and tend to choose undesirable financial situations as a result. They noted that mobile loan products are often too accessible and allow fleeting preferences to be acted upon immediately, usually resulting in poor choices. However, fintech tools and applications can also lead to improved financial behaviors. Applications can provide reminders and alerts to individuals to track their spending or record transactions (Panos & Wilson, 2020). These tools have been found to create fintech behaviors that favor financial literacy and better financial management and stability.

Best Practices Going Forward

If adults are not taught the skills needed to navigate the new digital environment and make better financial decisions, larger gaps in financial inclusion will occur between the literate and the illiterate financially (OECD, 2018). The range of financial products available today and decisions concerning these financial products have implications for individual financial well-being. Educational programs need to improve the financial and digital literacy of individuals and families, and ultimately improve their overall financial decision-making. Adult educators can develop more effective curriculum and experiences by understanding the learners' needs, utilizing adult learning strategies, and develop online competencies.

Fintech Needs Analysis

Research and analysis of the individuals and communities who most need financial education is a key area for development related to fintech. First, educators need to determine the learners' demographics, and then analyze the skills and motivations to help understand needs, and lastly, develop the education and training - all in sequential order (Care et al., 2018). Fintech programs should include careful consideration of internet availability and costs in order to develop appropriate objectives and curriculum to meet the learners' needs and applications.

Fintech Curriculum and Training

Fintech and financial literacy education should build on the core critical thinking and problem-solving competencies needed to improve financial well-being. According to Knowles (1980), adult learners should be involved in the learning and development of education and training. Learners should be encouraged to participate by utilizing their own experiences and concerns related to

financial decision-making and technology skills (Lusardi, 2019). Thus, training on the actual digital devices and the fintech applications that the learners' utilize, with the opportunity to reflect on their own experiences, are both the key to fintech experiences. As adult learners have financial experiences in their daily lives, educators can easily incorporate experiences through case studies, reflection, and team-centered scenario discussions (McGrath, 2009).

Implications and Strategies

According to Panos and Wilson (2020), an essential indicator of the ability to make financial decisions is the level of financial literacy in terms of the five core competencies, including earning, saving and investing, spending, borrowing, and protecting. However, with the 21st-century reality, digital skills are critical to utilize fintech in order to achieve better finance well-being. Thus, financial education programs and adult educators need to incorporate digital competencies along with financial principles to ensure quality fintech curriculum. Inclusive fintech literacy training and programs should provide the digital tools and confidence to use fintech efficiently and effectively, thereby improving the learners' financial decision-making (Lusardi, 2019).

Fintech adult education can provide the foundational understanding of the financial world and improve access and capability. Clearly, fintech programs should provide opportunities for self-directed learning opportunities. According to Bannister et al. (2012), self-directed learning, audio-visual streaming, and simulations are becoming increasingly popular educational resources. Financial simulations, where

individuals are allowed to learn by doing, can dramatically affect learners' confidence with both fintech and finances (Panos & Wilson, 2020).

Adult educators can support digital literacy across the spectrum of adult learning and build the skills necessary to understand the digital environment. The variety of technologies can be overwhelming, yet educators can utilize basic teaching strategies no matter the type of device or internet access. Mann (2021) noted the importance of learning in the online environment and developing skills related to accessing digital interfaces, reading online, understanding graphics, and netiquette as important starting points for adult learners with low technology skills.

Conclusion

Improving financial futures of individuals and families lies in digital financial literacy coupled with sound financial decision-making for securing economic well-being. As adult learners seek out more financial answers, well-designed educational options are essential for 21st-century learning on fintech. The COVID-19 pandemic, associated economic downturns, and the increasingly digital world, all highlight the reality that self-directed financial literacy through fintech will become even more critical in our global economy. We, as adult educators, can support and develop sound financial education programs that promote income security and economic well-being for less literate populations. In doing so, fintech may help close economic inequalities between individuals, families, and communities through financial inclusion and access to global information.

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