




FINANCIAL LITERACY OF YOUNG PROFESSIONALS IN THE CONTEXT OF FINANCIAL TECHNOLOGY DEVELOPMENTS IN MAURITIUS

 Boolaky A.¹⁺

 Maaree-Narrainen

D.²

 Padachi K³

^{1,2,3}School of Business Management and Finance University of Technology, Mauritius.

¹Email: aboolaky@umail.utm.ac.mu



(+ Corresponding author)

ABSTRACT

Article History

Received: 23 August 2021

Revised: 29 September 2021

Accepted: 15 October 2021

Published: 8 November 2021

Keywords

Financial literacy
Financial behavior
Financial knowledge
Financial attitude
Financial education
Fintech development
Young professionals
Mauritius.

JEL Classification:

A20; D14; G11; I22.

The emergence of financial technology (Fintech) has led to an increased need to promote efforts to boost the financial literacy of young professionals, as the financial decision-making process has become more challenging. The specific objectives of this study are to gauge the financial knowledge of young professionals and analyze their attitudes and behavior in regards to the use of Fintech for basic money management, financial planning and investment decisions. The study also aims to analyze the extent to which Fintech is used and its impact on financial literacy levels. The research methodology employs a dual approach. A quantitative study using a survey targets young professionals in the different occupational groups that constitute the Mauritian professional workforce. A regression model is developed to investigate the impact of Fintech usage and demographic factors on financial literacy. The findings reveal significant differences in financial knowledge, attitudes and behaviors attributable to various demographic factors. Furthermore, Fintech usage is limited to the traditional offerings while more innovative Fintech has relatively lower adoption rates. The study has uncovered the positive impact of Fintech usage on financial literacy, opening avenues for rethinking the content and scope of traditional financial education programs.

Contribution/Originality: The paper's primary contribution is that it investigates financial literacy through the lens of Fintech development and its adoption by young Mauritian professionals. Financial education and Fintech are no longer dissociable, as the former provides critical financial decision-making skills while the latter offers emerging financing opportunities.

1. INTRODUCTION

Financially literate individuals are typically persons who are well aware and conscious of their earnings, savings and the amount of money they have available to spend (Lusardi & Mitchell, 2007). According to Streeter (2003), people have so many financial choices, with so many variables to consider, in addition to hidden biases, conflicts and subjective preferences, that they become overwhelmed when it comes to making financial decisions. Greenspan (2005) noted that in the modern financial markets, individuals must understand and differentiate between a wide range of available financial products and services. The financial decision-making process has become even more challenging with the development of financial technologies (Fintech), which may be defined as the application of new technologies to create a competitive advantage in the financial market in terms of operations and delivery of quality services to clients. Financial institutions make significant use of financial technologies to re-engineer their operations in terms of portfolio decision making, estimating returns, creating new financial

derivatives, modeling credit/market risk and, more importantly, developing innovative products for clients (Tufano, 2009). The first Fintech era witnessed the introduction of digital innovations such as electronic payment and clearing systems, ATM machines and online banking. The current era is characterized by both disruptive start-ups and established technology companies innovating the market structures with digital assets such as cryptocurrencies, leveraging transaction data, expanding sources of funding and raising capital through crowd lending and peer-to-peer funding and automating the process and dissemination of investment advice (Bates, 2017). Furthermore, understanding the factors that influence bank consumers to adopt Fintech products and meeting the demands of the millennial generation are a challenge for the banking industry (Bureshaid, Lu, & Sarea, 2020).

The emergence of Fintech represents an opportunity to redefine the landscape of African countries, including Mauritius, as International Finance Centers (IFC). The Financial Regulatory space is currently seething following the 2021/2022 budget to boost the FinTech Industry. In fact, the Financial Services Commission, the Regulator of the non-Banking financial services in Mauritius, has designed a roadmap to shape the Fintech landscape by setting up frameworks for Sandbox licenses and supervising Fintech activities in relation to Initial Token Offerings (ITOs) and Digital Assets like crypto-currencies and the Central Bank Digital Currency. The rapid developments in Fintech have led to an increasing need to promote efforts to boost financial literacy to improve people's financial knowledge, attitudes and behavior as the emergence of Fintech has made the financial decision-making process even more challenging. In line with the government's vision to position Mauritius as a regional Fintech hub, investment in the education of our young people has therefore become imperative.

The focus of this study is the young professionals who have, in fact, represented an attractive segment of consumers and investors around the world (Altintas, 2011). The findings of Chen and Volpe (2002) highlighted that this particular segment of consumers and investors adopts innovative technologies more easily than other groups. Furthermore, Yakoboski, Lusardi, and Hasler (2018) pointed out that although millennials, who form part of the population of young working professionals, lead a more "technology-abled existence", there may still be gaps in their financial literacy levels. It would therefore be relevant to evaluate their competency to make important personal financial decisions in the context of Fintech development. Technological financial services are spread through competition, leading to more choices and opportunities, including the opportunities to make mistakes. Therefore, it is important to examine financial literacy in the context of Fintech development. Though many studies have assessed the level of financial literacy of the Mauritian public, to the best of our knowledge none have addressed the issue from a Fintech perspective. This study attempts to fill this research gap. The aim of the study is therefore to evaluate the financial literacy of the young professionals who adopt technological instruments, in order to make recommendations for enhancing the financial literacy program in this segment of the population and to provide a new orientation to policy makers. The need for enhanced financial education can thus be explained by the increased sophistication of the financial markets due to technological progress, the complexity of financial information and the changes in demographic and economic conditions. The specific objective of the study is to assess the financial knowledge of young professionals. It analyses the extent to which Fintech products are used for basic money management, financial planning and investment decisions and investigates the subjects' corresponding financial attitudes and behavior. The study also aims to uncover any gaps in the use of Fintech to evaluate the corresponding financial education needs in the wake of Fintech development. The rest of the paper is organized as follows: Section 2 provides an overview of the relevant literature, and Section 3 describes the methodology. Findings and the analysis of the results are presented in Section 4, while conclusions are noted in Section 5.

2. OVERVIEW OF LITERATURE

2.1. Financial Literacy Definitions

According to the Organization for Economic Co-operation and Development (OECD), financial literacy can be defined as "the process by which financial consumers improve their understanding of financial products, concepts and risk and

through information, instruction and objective advice, develop their skills and confidence to become more financially aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take effective actions to improve their well-being." Similarly, the United Nations Educational, Scientific and Cultural Organization (UNESCO) defines Financial Literacy as *"the ability to identify, understand, interpret, create, communicate and compute using printed and written materials in varying contexts."* In fact, several studies (ANZ, 2011; Lusardi & Mitchell, 2007; Lusardi & Tufano, 2015) have attempted to define financial literacy, its indicators and its implications for civil societies. However, no explicit definition of financial literacy has as yet been agreed upon.

Financial knowledge is certainly the most intuitive feature of financial literacy. Lusardi and Tufano (2015) measured financial knowledge using three basic questions dealing with Compound interest calculation, Inflation rate and Risk diversification. Benchmarking this measurement of financial knowledge (Atkinson & Messy, 2012), the OECD (2011) added five other key areas to its core questions, namely Division, Time-value of money, Interest paid on a loan, Calculation of interest plus principle and Risk and return. It is suggested that all these areas are relevant in the Mauritian context.

Financial behavior is another important component of the overall measurement of financial literacy proposed by Atkinson and Messy (2012). Financial behavior assumes that a financially literate person will exhibit sensible behaviors in areas from basic money management, to investment planning and decisions. In particular, given that the complexity of many financial decisions goes beyond basic knowledge, it is expected that lay persons should exhibit sensible behavior when managing their income or seek independent advice before making financial decisions. Another strand of literature considers financial literacy to be a driver of financial behavior, rather than representing two integrated components of the same desired attribute.

The third component of financial literacy as measured by Atkinson and Messy (2012) is Financial Attitudes. The rationale behind the addition of this component stems from the argument that people who have fairly negative attitudes towards saving for the future will be less inclined to adopt good financial behaviors. For instance, people who opt to plan day-to-day expenditures without much care for longer-term projects are unlikely to make sound financial planning decisions or have emergency savings. Conversely, Hung, Parker, and Yong (2009) argue that financial literacy should be distinguished from financial attitudes, which rely largely on legitimate preferences. According to them, this aspect should not be judged against a normative standard.

Several studies have demonstrated an interest in enhancing the financial literacy of young adults, which is important for a number of reasons. According to Altintas (2011), young adults are, in fact, an attractive segment of consumers/investors around the world. This is because they are more likely to have completed their education and engage in important financial decisions such as buying a car or home or even contributing to a retirement account (Carlo, 2013). Chen and Volpe (2002) highlighted that this particular segment of consumers adopts innovative technologies more easily than other groups, and it would therefore be relevant to evaluate their skills in making important financial decisions.

According to Streeter (2003), people have so many potential financial choices, with so many variables to consider in addition to hidden biases, conflicts and subjective preferences that they become overwhelmed when it comes to making financial decisions. Therefore, it is important to examine financial literacy in all its components. The most pertinent skills are basic money management, financial planning and investment decisions, which are each discussed below.

2.2. Factors Affecting Financial Literacy

A number of studies have focused on gender as an important determinant of financial literacy and have documented a consistent gender gap (for example (Chen & Volpe, 2002; Hanna, Hill, & Perdue, 2010; Lusardi, Mitchell, & Curto, 2010)). This gender gap is prominent among the youth as well. Khurshed (2014) conducted a study on gender disparities in financial literacy among university students that showed that female respondents are

better at keeping financial records, saving and managing daily expenses, whereas male respondents have greater skills for investment and deciding on financial goals. In a more recent study, [Bucher-Koenen, Lusardi, Alessie, and Van Rooij \(2017\)](#) postulated that financial literacy is widespread among women because they tend to live longer than men and thus anticipate different savings needs.

Furthermore, according to [Lusardi and Mitchell \(2011b\)](#), financial literacy tends to increase with age up to retirement and tends to decline in old age. This finding may be explained by the life cycle hypothesis model of consumption and savings ([Ameriks, Caplin, & Leahy, 2002](#)). As the young are still investing in their education, they have little or no income and therefore make fewer savings and investments. However, in middle age, the pressure to invest is high, and individuals require financial knowledge to make optimal financial decisions about their investments ([Lusardi & Mitchell, 2014](#)).

Income level has also been found to influence financial literacy. For instance, [Delavande, Susann, and Robert \(2008\)](#) found that that wealth accumulation in the form of investments increases the need for financial literacy, as individuals are motivated by the fact that they need to efficiently manage and increase their wealth. [ANZ \(2011\)](#) observed higher financial literacy scores in Australian households with higher income levels.

There is also evidence suggesting a positive relationship between education and financial literacy levels ([Van Rooij, Lusardi, & Alessie, 2009](#)). Closely linked to education level, occupational status also influences the level of financial literacy. According to [Worthington \(2006\)](#), executives are likely to display higher levels of financial literacy compared to those who are unemployed, while [Al-Tamimi and Bin Kalli \(2009\)](#) found that investors who were employed in the fields of banking, investment and finance exhibited higher levels of financial literacy than their counterparts in non-finance fields.

[Garman, Leech, and Grable \(1996\)](#) remarked that poor financial literacy influences family money management practices, which consequently has a detrimental impact on an individual's life at home and/or work. [Hogarth and Hilgert \(2002\)](#) observed that educators, community groups, businesses, government agencies, organizations, and policy makers have made financial literacy an important point of action in their agendas. Intrinsically, academic courses represent a key element indicator for business, finance or accounting students to become more knowledgeable in personal financial literacy matters as well as other, non-management students ([Robb & Sharpe, 2009](#)).

2.3. Basic Money Management

Today, there is a growing consensus that the ultimate measure of financial literacy is related to individual wellbeing ([Matewos & Kuar, 2015; Olawale & Olabanji, 2014](#)). According to [Anderson, Kent, Lyter, Siegenthaler, and Ward \(2000\)](#), personal financial literacy refers to the ability to read, analyze and write about personal financial conditions and plan for the future. Similarly, according to [ANZ \(2011\)](#), financial literacy is the ability of people to make informed judgments and to take effective decisions in regards to the use and management of money, namely tracking finances, planning ahead, choosing financial products and staying informed. Financial literacy is therefore crucial to individuals' basic money management.

At the empirical level, [Lusardi and Mitchell \(2011\)](#) captured the basic components of Financial Knowledge relating to money management and personal finance, namely interest, compounding, inflation, risk and return. They found that financial education has a humped-shaped age profile; it is highest among 45- to 55-year-olds and lower for younger and older age groups. They inferred that low financial literacy has a strong positive correlation with a set of socio-demographic factors that includes gender, lower education levels and unemployment.

2.4. Investment Decisions

The importance of financial literacy in investment decision making cannot be overlooked. This is because it acts as a tool that enables investors to mitigate risks by allocating funds wisely, thus allowing them to accumulate

wealth. Behavioral finance explains how different investors realize and respond to information available in the market (Abdeldayem & Assran, 2013). According to Kahneman and Tversky's (1979) Prospect Theory, there is always a psychological element to decision making in cases of financial ambiguity. It has been noted in the literature that those with presumably high levels of financial literacy do not implement their knowledge when building their own portfolio (Bodnaruk & Simonov, 2015; Gathergood, 2012; Von Gaudecker, 2011).

At the empirical level, Al-Tamimi and Bin Kalli (2009) analyzed financial literacy and investment decision making among UAE investors. Their results indicate that there is a significant relationship between the two variables. The top four most influential factors affecting investment decisions were found to be religious reasons, the reputation of the firm, perceived ethics and diversification motives. They found that financial literacy levels are mostly affected by income, education and workplace activity. In a more recent study, Janor (2016) conducted a comparative study of financial literacy and investment decisions in Malaysia and the UK. They found that the general level of financial literacy in both countries is low. Investment decisions are highly influenced by social, economic and demographic factors and are also psychological in nature. A study by Abdeldayem (2016) showed that participants in low financial literacy groups prefer to invest in traditional and safe financial products and do not invest in complex financial products that are comparatively riskier.

2.5. Financial Planning

Another important aspect of financial literacy relates to financial planning. This is because a sound personal financial plan gives an individual a certain level of financial comfort to make guided decisions in the future. According to Lee and Ong (2001), a review process exists that can help an individual to establish a baseline for future financial management. Financial planning requires an individual to set up both short-term and long-term goals, be they daily cash management, tax or retirement planning. But to execute a financial plan successfully, the individual must have a certain level of financial literacy. In other words, they should be able to read, write, analyze and carry out cost-benefit analyses of the various alternatives available to them. The ability to make these decisions responsibly would therefore improve their well-being. At the empirical level, Navickas, Gudaitis, and Krajinakova (2014) conducted a study on the influence of financial literacy on the personal financial management of young households. They concluded that young households do not know the basic concepts of financial literacy, which in turn affects their decision making when it comes to choosing mortgages, bank deposits, leasing and retirement planning. Similarly, Boon, Yee, and Ting (2011) analyzed whether financial literacy is a useful indicator of an individual's financial planning in Malaysia. Their study revealed that people who are more financially literate focused more on financial planning to pre-empt adverse consequences. Though it is argued that professional advisers who educate clients on financial matters continue to be valued, this study is partly concerned with the extent to which they rely on automated financial decisions.

2.6. Financial Literacy and Fintech Adoption

The relationship between Fintech usage and financial literacy is dynamic and nuanced; Fintech adoption appears to be a complement to and not a substitute for financial literacy (Yakoboski et al., 2018). Ernst and Young (2017) highlighted the brisk and continued growth of the use of Fintech products in different areas, ranging from fund transfers, payment services, insurance services to savings and investment. Fintech provides financial institutions with the opportunity to reach out to a larger consumer base, but at the same time it shifts the burden of financial knowledge to the individual rather than the institution. To make good use of Fintech services, consumers need to develop their financial literacy, including gaining information on specific products and overall knowledge of financial matters, as well as digital literacy, which includes understanding digital technologies and information, and the capability of handling digital tools. Chang, Seong, and Khin (2018), highlighted the link between awareness and adoption of Fintech products and services. Education in financial and digital literacy can help build consumers'

capacity to grasp and mitigate the potential risks of Fintech services, thereby contributing to consumer protection (Bates, 2017). On the other hand, Fintech has the potential to improve personal finance decisions and behavior, thus enhancing personal finance outcomes (OECD., 2018). However, according to Bates (2017), financial institutions should also utilize these techniques to help consumers better understand the nuances of the product or service.

3. METHODOLOGY

The research methodology employs a dual approach. Firstly, a quantitative study is carried out using a survey instrument to target young professionals in Mauritius. The sampling is based on the International Geneva Labour Office classification of the occupational groups that make up the professional workforce, including the fields of business and finance; architecture and engineering; law; education; arts and media; and health. A stratified random sampling technique was therefore used, with the occupational groups as strata. A structured questionnaire was designed and administered via the internet to the respondents through their respective professional bodies and associations. A snowball sampling had to be subsequently adopted, due to an initial low response in certain professions. A total of 324 valid questionnaires were collected. The responses from young professionals covered their knowledge of financial concepts and their attitudes and behaviors towards the usage of Fintech products in their financial decision-making process, with regards to basic financial management, investment, and planning decisions. The determination of their financial knowledge score followed the method of Atkinson and Messy (2012) whereby each correct answer was given an equal score of 1, with each question bearing equal weight. Financial Attitude and Behavior scores were contextualized to incorporate Fintech perception and use. Their determination was adapted from Atkinson and Messy (2012) using 8 behavioral and attitudinal aspects, namely purchases, payment of bills, keeping watch on financial affairs, setting financial goals, budgeting, borrowing, saving and choosing financial products. The Fintech usage score determined here is adapted from the EY Fintech adoption index, in which scores are assigned for the number of Fintech products used by the respondents, the maximum score being 8. On the other hand, the qualitative aspect of the study adopted instruments such as focus group discussions and document analysis targeting Fintech providers like banks and telecommunications providers.

The relationships between Fintech usage, demographic factors and financial literacy are investigated in this study using a preliminary investigation through the Pearson correlation coefficient. To further investigate the influence of Fintech adoption on financial literacy, an Ordinary Least Squares regression analysis is conducted. The demographic factors of gender, income, age and profession (as dummy variables) have also been included. The model specification is as follows:

$$FLIT = \beta_0 + \beta_1 FINTECH + \beta_2 FINKNOW + \beta_3 INCOME + \beta_4 AGE + \beta_5 GENDER + \beta_6 ENG + \beta_7 BA + \beta_8 EDU + \beta_9 ICT + \beta_{10} HLT + \beta_{11} LAW + \varepsilon$$

Where

FLIT: Financial Literacy Score.

FINTECH: Fintech usage score.

FINKNOW: Financial Knowledge Score.

INCOME: Income Level of the professionals.

AGE: Age of the Professionals.

GENDER: Dummy Variable for gender.

ENG: Dummy Variable taking the value 1 if professional category is Engineering.

BA: Dummy Variable taking the value 1 if professional category is Business and Administration.

EDU: Dummy Variable taking the value 1 if professional category is Education.

ICT : Dummy Variable taking the value 1 if professional category is the ICT field.

HLT: Dummy Variable taking the value 1 if professional category is the Health field.

LAW : Dummy Variable taking the value 1 if professional category is the Legal field.

Furthermore, the study attempts to investigate the influences of the demographic factors on financial knowledge, attitude and behavior, and literacy more specifically, to uncover any differences between the scores and to identify where these differences may lie if they exist. The Levene's test for the homogeneity of variances was conducted. For the variable gender, a t-test was conducted to check differences in means, whereas for the other demographic factors Anova tests were conducted. To identify where the differences lie, the Tukey Honest Significance Difference post hoc test was generated for each demographic factor.

4. FINDINGS AND ANALYSIS

4.1. Fintech Usage

The survey instrument attempts to capture the extent to which financial technologies are used by young Mauritian professionals to handle routine financial transactions, as depicted in Figure 1. More than 50% of the respondents make widespread use of traditional Fintech products, such as debit cards, credit cards and internet banking. It is worth noting that a large proportion of respondents files their tax returns online. This may be due to the numerous advantages it offers, like extended deadlines, and the financial gains that the Mauritius Revenue Authority is proposing for users of e-Filing.

With the emergence of Fintech innovation, young professionals have the tendency to visit the bank branch less often, with more than 55% of the respondents rarely visiting their banking institution. It is interesting to note that the ATM remains the most popular mode of interaction for banking transactions, with 93% of the respondents using this tool often. Internet Banking has also emerged as a common tool among young professionals, in line with the findings of Veijalainen, Terziyan, and Tirri (2006). SMS Banking and Mobile Banking are, however, currently being used to a lesser extent. The slow penetration of these services among Mauritian young professionals may be due to factors like privacy and perceived security, as well as lack of awareness, which is in line with the findings of Amin and Ramayah (2010). More innovative Fintech products, like finance applications and Digital wallets, have however not yet been adopted at scale. This may be partly explained by the fact that emerging Fintech products benefit from a lower level of trust, mainly due to a lack of awareness about their potential (Principato, 2021). A finance app often acts as a digital assistant to remind people about paying bills, to track payments or to set reminders to avoid late fees. It may be that young professionals are managing without them by using more traditional methods, or they may find it cumbersome to install several finance apps on their phone. As such, the introduction of a single application that can consolidate all transactions across banks might be of value to young professionals. The use of a digital wallet is negligible among young professionals. This can be explained by the fact that the use of a digital wallet is dependent on the device. For instance, if one loses their phone or if the battery dies, they lose their wallet, whilst the risk of system malfunction or shutdown is always present.

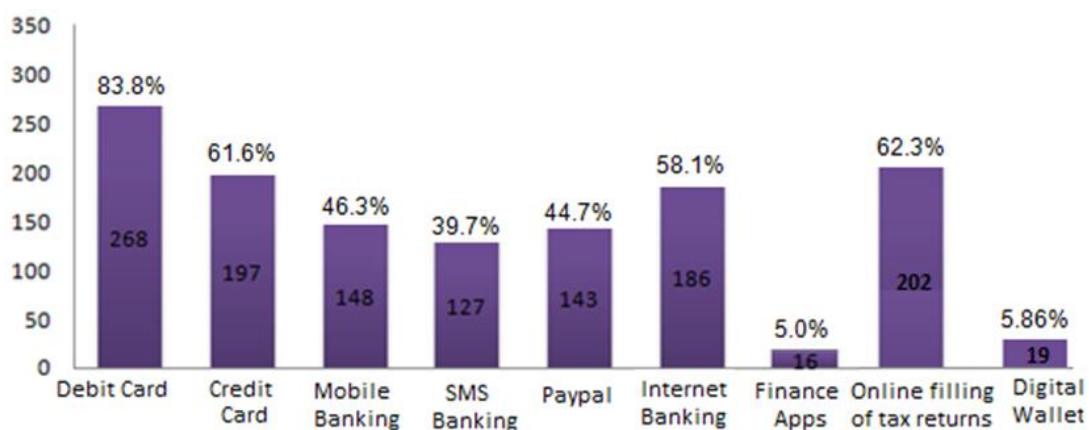


Figure-1. Fintech Usage Frequencies.

This study also investigates the extent to which Fintech is used for financial planning in terms of loans, insurance and retirement plans, as well as investment decisions like trading in securities markets. The results, depicted in Table 1, revealed that the majority of the young professionals do not trade stocks on financial markets.

Table-1. Trading experience on financial markets.

General Trading	Responses	Percent of Cases
	N	
Respondents trade based on market information only	52	21.1%
Respondents trade based on technical analysis only	33	13.4%
Respondents do not consult anything when trading	15	6.1%
Respondents do not trade	150	60.7%

However, of the 40% who do trade, the majority make use of market information and technical analysis for their investment decisions. Professionals' low participation in the stock market corroborates the observations made by the provider of the Financial literacy program "ABC of the Stock Exchange of Mauritius" which is regularly organized to educate the target audience, including students, SME owners and professionals, on trading. Although the program designed by experts was pitched at an introductory level, the fact that "the end users still could not relate and found the level quite high" could explain the low participation in the stock trade. The findings suggest that simulation-based trading games might be explored as a means of enhancing the understanding of stock markets, in line with Devasagayam and Hyat (2007).

Table-2. Planning and Monitoring Investments (Loans, Insurance policies and Retirement Funds).

	Loan		Insurance Policy		Retirement Funds	
	Frequency	(%)	Frequency	(%)	Frequency	(%)
Have the respondents contracted the financial product?	116	35.9	156	48.1	90	27.8
How have respondents planned their use of financial products?						
Based only on information provided by financial institutions	43	37.1	49	31.4	35	38.9
Use of online calculators	18	15.5	10	6.4	7	7.8
Based on expert advice	24	20.7	48	30.8	23	25.6
All of the above	34	29.3	58	37.1	33	36.7
Do respondents monitor the evolution of the financial products?	93	80.1	96	61.5	53	58.9
<i>Modes of Monitoring</i>						
Screening of statements /returns	72	77.4	52	54.2	34	64.2
Monitoring evolution of interest rates	16	17.2				
Consider rescheduling terms	9	9.7	16	16.7	7	13.2
Consider cash back options			59	61.4	23	43.4

Furthermore, Table 2 provides insight into how the young professionals plan for and monitor the different financial products. It is observed that fewer than 50% of respondents have contracted a loan or insurance policy. Furthermore, the level of retirement planning is found to be low, with only 27.8% of respondents having invested in such funds. The basis of their investment decisions was also gauged. The proportion of young professionals using the three different tools in their financial decision making process ranges from 29.3% for loans to 36.7% for retirement funds and 37.1% for insurance policies. It can also be observed that at least one third of the professionals continue to make decisions about their investment planning based only on information provided by the financial institutions they are dealing with (more specifically 31.4% for insurance policy, 37.1% for loans and 38.9% for retirement funds). As far as monitoring these financial products, it can be observed that a large majority of respondents who have a loan do monitor its schedule. However, generally only passive monitoring takes place

through the screening of the loan statement, while very few of the respondents follow up on the evolution of repo rate and consider rescheduling terms accordingly (17.2% and 9.7%, respectively). As regards insurance and retirement plans, the monitoring is of lower magnitude than for loans, but the follow up appears to be more proactive (for example, more than 60% of respondents who monitor their insurance policies have considered cash back options).

The Fintech usage score has a mean of 3.5, suggesting that Fintech has a relatively low adoption rate. The results show that the use of Fintech is restricted to the traditional products, while more innovative financial technologies have relatively lower adoption rates. For banking transactions, the use of ATMs and Internet banking or direct debit remains the most common, rather than mobile and SMS banking. The lack of penetration of innovative digital channels like mobile banking may be due the perceived low quality of internet connectivity and high costs, which have been highlighted by previous studies such as [Veijalainen et al. \(2006\)](#) and [William \(2016\)](#). As noted by [Barbu, Florea, Dabija, and Barbu \(2021\)](#), customer experience positively influences Fintech adoption. This suggests that Fintech providers should come up with incentives that boost customers' experience to encourage the adoption of Fintech services.

Along the same lines, e-banking services are not being utilized to their full potential by young professionals in Mauritius. In line with the findings of [Ernst and Young \(2017\)](#), the use of Fintech by young professionals in Mauritius is more driven by money transfers and payment purposes than financial planning, insurance and investment decisions. In fact, trading in stock markets as well as the use of Fintech to monitor loans, insurance and retirement funds is relatively low in general and remains passive. One of the main barriers to Fintech adoption highlighted in the study is the lack of knowledge about the products. Along the same lines, the young professionals do not appear to be fully satisfied with the information, guidance, and technical support offered by the Fintech providers, namely their banking institutions, while the document analysis to a certain extent confirms the lack of adequate assistance available in the use of Fintech. This has resulted in a relative low level of Fintech adoption which is limited to the traditional offerings, whereas the use of more innovative Fintech products is not widespread even among young professionals. It is worth noting that the low Fintech usage is in contradiction with the relatively high opinions of Fintech. In fact, Fintech is perceived as being easy to use in terms of faster transaction execution and providing a better online experience than conventional banking. The main fears associated with Fintech are the interception of security and the charges for using FinTech. These observations do not appear to be fully in line with the findings of [Chu \(2016\)](#) who contended that a technology's perceived ease of use positively influences the end-users' adoption of the innovation.

4.2. Factors Influencing Financial Knowledge, Attitude, Behavior and Literacy

This section investigates the extent to which demographic factors, including gender, age, income and professional category of the young professionals, affect their financial knowledge, attitude and behavior, as well as their literacy scores.

Table-3. Correlation matrix.

Pearson Correlation	Gender	Age	Income	Profession	Fintech Usage
Financial Literacy Score	0.130	0.366**	0.401**	0.103	0.365**
Financial Knowledge Score	0.133*	0.226**	0.287**	-0.005	0.186**
Financial Attitude and Behavior Score	0.076	0.327**	0.327**	0.147**	0.357**

Note: ** and * imply significance at the 1% and 5% level, respectively.

Table 3 computes the correlation of the three scores with the demographic variables to give a preliminary indication of the relationships. Financial knowledge is found to be significantly correlated with age, income and Fintech usage, while its correlation with gender and profession is not significant. However, the financial attitude and behavior of respondents is significantly correlated with their professional category. Moreover, gender is not

found to be significantly correlated with financial attitude and behavior nor with financial literacy. The absence of gender influence may be explained by the fact that the study focuses on a rather homogenous group of males and females who are professionally qualified. The significant and positive influences of the other factors tend to be in line with the previous literature.

4.2.1. Regression Results

The regression model exhibits reasonable levels of goodness of fit, with R-Squared and Adjusted R-Squared amounting to more than 60% while the F-test shows the highly significant predictive power of the model with a *p-value* of less than 1%.

The Variable LAW has been omitted from the regression due to collinearity. From the regression analysis shown in Table 4, it can be observed that for the adoption of every additional Fintech tool, the financial literacy score is expected to increase by 0.563 points. As suggested by the literature (Bates, 2017; Yakoboski et al., 2018), the Fintech usage of young professionals has a significant impact on their financial literacy level. In fact, Fintech tools strive to make patterns in their financial behavior more intelligible to their users and contribute to self-education. This study has therefore uncovered the potential for Fintech to improve professionals' conduct and management of their personal finances in Mauritius. The regression analysis and the correlation matrix suggest that in many instances demographic factors have significant influence on the financial knowledge, attitude, behavior and financial literacy of the professionals. It is therefore imperative to investigate the influences further to check for any differences in the means of the difference for financial knowledge, attitude and behavior and literacy scores and identify where these differences lie.

Table-4. Results of the regression analysis.

Dependent Variable: Financial Literacy			
Regressor	Coefficients	Standard error	t-statistic
Fintech usage	0.563 **	0.835	6.75
Financial knowledge	1.046**	0.017	14.95
Gender	0.357	0.331	1.08
Age	0.502**	0.279	2.88
Income	0.488*	0.221	2.20
Engineering	0.914**	0.578	2.97
Business Administration	0.622**	0.500	2.86
Education	0.407*	0.547	2.24
ICT	0.610**	0.543	2.65
Health	0.978	0.619	1.58
Constant	1.392	0.698	0.47
R-Squared	0.6162	F-Statistics	50.26
R-Squared Adjusted	0.6040	p-value	0.00

Note: ** significant at 1% level * significant at 5% level.

4.2.2. Influence of Demographic Factors

The Levene's test for the homogeneity of variances showed no evidence to reject the null hypothesis of homogeneity of variances at 5% in all cases except for financial literacy and financial knowledge against profession, where the assumption of equal variances holds at the 1% level. Under this condition, relevant tests for differences in means could be applied.

For the parameter gender, the t- test was conducted to check differences in means. For the other demographic factors, Anova tests concluded to a statistically significant difference at 1% in the means for the three scores and for all the demographic factors. To identify where the differences lie, the Tukey Honest Significance Difference post hoc test was generated for each demographic factor.

Table-5. Tukey HSD Post hoc test (Age).

Post-hoc test using Tukey HSD		Mean Difference (Fin Literacy)	Mean Difference (Fin Knowledge)	Mean Difference (Fin Attitude Behavior)
Age (I)	Age (J)			
18 - 25	26 - 35	-9.499**	-8.657**	-10.144**
	36 - 39	-13.705**	-10.893**	-15.855**
26 - 35	18 - 25	9.499**	8.657**	10.144**
	35 - 39	-4.205	-2.236	-5.711
36 - 39	18 - 25	13.705**	10.893**	15.855**
	26 - 35	4.205	2.236	5.711

Note: ** and * imply that the mean difference is significant at the 1% and 5% level, respectively.

Professionals in the age groups of 26-35 and 36-39 obtain significantly higher financial scores than their 18-25 counterparts, as depicted in Table 5. This may be mainly due to the fact that the former are more likely to already have been engaged in major financial decisions, such as taking out a loan, purchasing a car or buying an insurance policy than the latter. The results are consistent with the findings of Lusardi and Mitchell (2011), who postulated that financial literacy is positively correlated with higher age.

Furthermore, it has been found that in general, the higher the income level, the higher the financial scores of the respondents, as highlighted in Table 6. This can be explained by the fact that high income earners have a higher propensity to make a variety of investments rather than simply investing in a savings account. The result is consistent with the findings of Al-Tamimi and Bin Kalli (2009). The mean differences are, however, not significant for the income groups $31 < k < 50$ and $> 50k$.

Table-6. Tukey HSD Post hoc test (Income).

Post-hoc test using Tukey HSD		Mean Difference (Fin Literacy)	Mean Difference (Fin Knowledge)	Mean Difference (Fin Attitude Behaviour)
Income (I)	Income (J)			
<15k	16<k<30	-6.290*	-8.277**	-4.771
	31<k<50	-14.306**	-11.593**	-16.381**
	>50k	-15.994**	-16.991**	-15.231**
16<k<30	<15k	6.290*	8.277**	4.771
	31<k<50	-8.016**	-3.316	-11.610**
	>50k	-9.703**	-8.714*	-10.460*
31<k<50	<15k	14.306**	11.593**	16.381**
	16<k<30	8.016**	3.316	11.610**
	>50k	-1.687	-5.398	1.150
>50k	<15k	15.994**	16.991**	15.231**
	16<k<30	9.703**	8.714*	10.460*
	31<k<50	1.687	5.398	-1.150

Note: ** and * implies that the mean difference is significant at the 1% and 5% level respectively.

Table 7 depicts the Tukey HSD Post Hoc Test for professional category. It can be noted that those respondents in the field of Business Administration display significantly higher levels of financial knowledge than their counterparts in the Engineering, ICT, Education and Health sectors. This can be explained by the fact that they may be more exposed to finance-related matters in their professional environment or may have pursued studies in that field. It is worth noting that the financial knowledge of those in the legal profession is not significantly lower than that of professionals in Business Administration. On the other hand, where financial attitude and behavior in the context of Fintech use is concerned, young professionals from the ICT and Engineering sectors are found to be more highly ranked than those in the Business and Administration field, although the differences are not significant. Furthermore, the mean value of financial attitude and behavior of those in the legal profession is significantly lower than that of professionals in the ICT Field. The significantly lowest ranking of the Health category (which includes medical doctors and nurses) for all 3 financial scores may be explained by the fact that this category of practitioners may be the least exposed to both finance and technology content in their professional

training. The findings are therefore only partly in line with Botha (2014), who asserted that those in the finance field outperform non-finance sectors.

Table-7. Tukey HSD post hoc test (Profession).

Post-hoc test using Tukey HSD		Mean Difference (Financial Literacy)	Mean Difference (Financial Knowledge)	Mean Difference (Financial Attitude and Behavior)
Profession (I)	Profession (J)			
Health	Bus Admin	-13.975**	-20.135**	-9.264*
	Legal	-8.250	-18.590**	-0.343
	ICT	-11.458**	-10.501*	-12.190*
	Engineering	-10.888**	-10.646*	-11.074*
	Education	-8.616*	-7.703	-9.315
Bus Admin	Health	13.975**	20.135**	9.264*
	Legal	5.725	1.545	8.921
	ICT	2.517	9.634*	-2.926
	Engineering	3.087	9.490*	-1.810
	Education	5.358	12.433**	-0.051
Legal	Health	8.250	18.590**	0.343
	Bus Admin	-5.725	-1.545	-8.921
	ICT	-3.208	8.089	-11.847*
	Engineering	-2.638	7.945	-10.731
	Education	-0.366	10.887	-8.972
ICT	Health	11.458**	10.501*	12.190**
	Bus Admin	-2.517	-9.634*	2.926
	Legal	3.208	-8.089	11.847*
	Engineering	0.570	-0.144	1.116
	Education	2.842	2.798	2.875
Engineering	Health	10.888**	10.646*	11.074*
	Bus Admin	-3.087	-9.490*	1.810
	Legal	2.638	-7.945	10.731
	ICT	-0.570	0.144	-1.116
	Education	2.272	2.943	1.759
Education	Health	8.616*	7.703	9.315
	Bus Admin	-5.358	-12.433**	0.051
	Legal	0.366	-10.887	8.972
	ICT	-2.842	-2.798	-2.875
	Engineering	-2.272	-2.943	-1.759

Note: ** and * imply that the mean difference is significant at the 1% and 5% level, respectively.

4.3. Discussion

The attitudinal and behavioral preferences for Fintech in financial decision making are not gender driven, whereas only significant income differences affect financial attitude and behavior. High level income earners adopt similar attitudes and behaviors in their use of Fintech. Furthermore, the significantly lower financial attitude and behavior score for the younger age bracket corroborates the study by Ernst and Young (2017), highlighting the fact that the 18-25 age bracket has a lower average Fintech adoption rate than the other young professionals, as they may not require a wide range of financial products at this early stage of their careers. As such, Fintech-adoption-driven financial education must be specifically geared towards the 18-25 age bracket, as they have not yet developed strong consumer relationships with traditional service providers, unlike older generations. The analysis further investigated the financial attitudinal and behavioral differences associated with different professions, which were found to be significant. This may suggest that some professionals, namely those in the ICT and Engineering fields, have higher Fintech adoption rates as they may be more digitally active. In fact, a Kruskal-Wallis H test did confirm a statistically significant difference in the perceived understanding of Fintech among different professional categories, (with a Chi Square statistic = 11.260, p -Value = 0.046). Similar results have been obtained for perceptions of the ease of use of Fintech among professions (Chi Square statistic = 12.610, p -value = 0.027). The

results as regards the financial knowledge of young professionals are in many instances in line with literature. Financial knowledge is found to be positively correlated with age, whereas the scores differ depending on the respondents' professional category. The financial knowledge of professionals in scientific fields is significantly lower than that of professionals in business administration, where finance may play a more prominent role in their work. However, concerning the overall financial literacy in the context of Fintech use, there are no significant differences among professionals.

5. CONCLUSION AND IMPLICATIONS OF STUDY

The findings revealed significant differences in the financial knowledge, attitudes and behaviors of the professionals, influenced by the demographic factors including the different professional categories. For instance, young professionals in the field of Business and Administration displayed significantly higher financial knowledge than their counterparts in the Engineering, ICT, Education and Health sectors. The financial attitude and behavior scores of those in the legal profession were significantly lower than those of professionals in the ICT field. The study uncovered that the significantly lowest ranking for all the different financial scores was for those in the health sector (which includes medical doctors and nurses). Furthermore, despite the respondents being digitally active, Fintech adoption was generally limited to traditional offerings while more innovative financial technologies have relatively lower adoption rates. Also, e-banking services are not being explored to their full potential. One of the main barriers to Fintech adoption highlighted by the study is a lack of knowledge about the products and a lack of information, guidance and technical support provided by the banks. Moreover, significantly lower financial attitude and behavior scores for the younger age bracket corroborates the study conducted by [Ernst and Young \(2017\)](#), highlighting the fact that the category of 18-25 years has a lower average Fintech adoption rate and suggesting that Fintech education ought to be specifically geared towards this age group. The implications of the study suggest certain recommendations for enhancing financial education through continuous learning embedded in university programs in all fields of study.

In a world where financial choices are increasingly driven by digital tools, emphasis should be placed on Fintech education, by incorporating Fintech training in university curricula as well as engaging Fintech providers in the education process. Particularly in the current pandemic situation, the adoption of Fintech facilitates the daily operational activities of professionals, which impacts positively on an efficient lifestyle. It is therefore recommended that tailor-made Fintech education be integrated in the health, arts and scientific study programs, among others, at the tertiary education level. With a view to encouraging the above-mentioned two segments of the population, gamified Fintech simulators for mobile devices would be of much interest to enhance their Fintech learning process. This would further pave the way towards Public Private Partnerships of all stakeholders in the Fintech area, such as the Mauritius Africa Fintech Hub (MAFH), in support of Fintech education. The study has uncovered the positive impact of Fintech usage on the financial literacy of young professionals, opening avenues for rethinking the content and scope of traditional financial education programs. Educating the young about Fintech will contribute to their financial literacy. In the light of the above, it is clear that the effectiveness of financial education programs can be enhanced by incorporating education about digital and Fintech tools. Future research could focus on the design of Fintech education programs and also the development of evaluation mechanisms for FLPs. This study has also paved the way for FLP providers to focus on delivering a more concerted approach to financial education by setting up an e-platform on financial education.

Funding: The research was funded under the Mauritius Research and Innovation Council (MRIC) Small Scale Research and Innovation Grant Scheme.

Competing Interests: The authors declare that they have no competing interests.

Acknowledgement: All authors contributed equally to the conception and design of the study.

REFERENCES

- Abdeldayem, M., & Assran, M. S. (2013). Testing the market timing theory of capital structure: The case of Egypt. *International Research Journal of Finance and Economics (IRJFE)*, Issue, 113, 105-123.
- Abdeldayem, M. (2016). Is there a relationship between financial literacy and investment decisions in the kingdom of Bahrain? *Management and Administrative Sciences Review*, 5(4), 203 - 221.
- Al-Tamimi, H. H., & Bin Kalli, A. (2009). Financial literacy and investment decisions of UAE investors. *The Journal of Risk Finance*, 10(5), 500-516. Available at: <https://doi.org/10.1108/15265940911001402>.
- Altintas, K. M. (2011). The dynamics of financial literacy within the framework of personal finance: An analysis among Turkish university students. *African Journal of Business Management*, 5(26), 10483-10491. Available at: <https://doi.org/10.5897/ajbm11.401>.
- Ameriks, J., Caplin, A., & Leahy, J. (2002). Wealth accumulation and the propensity to plan. *Quarterly Journal of Economics*, 118(3), 1007-1047. Available at: <https://doi.org/10.1162/00335530360698487>.
- Amin, H., & Ramayah, T. (2010). SMS banking: Explaining the effects of attitude, social norms and perceived security and privacy. *The Electronic Journal of Information Systems in Developing*, 41(2), 1-15. Available at: <https://doi.org/10.1002/j.1681-4835.2010.tb00291.x>.
- Anderson, C., Kent, J., Lyter, D. M., Siegenthaler, J. K., & Ward, J. (2000). Personal finance and the rush to competence: Financial literacy education in the US. *Journal of Family and Consumer Sciences*, 107(2), 1-18.
- ANZ. (2011). Australian and New Zealand banking group, Adult Financial Literacy in Australia. Retrieved from: <https://www.anz.com/resources/f/9/f9fc9800493e8ac695c3d7fc8cff90cd/2011-Adult-Financial-Literacy-Full.pdf.pdf?CACHEID=f9fc9800493e8ac695c3d7fc8cff90cd>.
- Atkinson, A., & Messy, F. (2012). Measuring financial literacy: Results of the OECD / international network on financial education (INFE) Pilot study. OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, OECD Publishing.
- Barbu, C., Florea, D., Dabija, D.-C., & Barbu, M. (2021). Customer experience in Fintech. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(5), 1415-1433. Available at: <https://doi.org/10.3390/jtaer16050080>.
- Bates, R. (2017). Banking for the future an exploration of FinTech and the consumer interest. Report for Consumers International.
- Bodnaruk, A., & Simonov, A. (2015). Do financial experts make better investment decisions? *Journal of Financial Intermediation*, 24(4), 514-536. Available at: <https://doi.org/10.1016/j.jfi.2014.09.001>.
- Boon, T. H., Yee, H. S., & Ting, H. W. (2011). Financial literacy and personal financial planning in Klang Valley, Malaysia. *International Journal of Economics and Management*, 5(1), 149-168.
- Botha, M. (2014). *A comparative analysis of the financial literacy of final year diploma students in different fields of study at the University of Johannesburg*. South Africa: University of Johannesburg.
- Bucher-Koenen, T., Lusardi, A., Alessie, R., & Van Rooij, M. (2017). How financially literate are women? An overview and new insights. *Journal of Consumer Affairs*, 51(2), 255-283. Available at: <https://doi.org/10.1111/joca.12121>.
- Bureshaid, N., Lu, K. J., & Sarea, A. (2020). *Investigation of Fintech services adoption in the banking industry*. Paper presented at the Proceedings of the Industrial Revolution & Business Management: 11th Annual PwR Doctoral Symposium (PWRDS).
- Carlo, D. B. S. (2013). Financial literacy and financial behavior among young adults: Evidence and Implications. *Advancing Education in Quantitative Literacy*, 6(2), 1-21. Available at: <https://doi.org/10.5038/1936-4660.6.2.5>.
- Chang, J. C., Seong, L., & Khin, A. (2018). Factors affecting the consumer acceptance towards fintech products and services in Malaysia. *International Journal of Asian Studies*, 9(1), 59-65. Available at: <https://doi.org/10.18488/journal.1.2019.91.59.65>.
- Chen, H., & Volpe, R. P. (2002). An analysis of personal financial literacy among college students. *Financial Services Review*, 7(2), 107-128. Available at: [https://doi.org/10.1016/s1057-0810\(99\)80006-7](https://doi.org/10.1016/s1057-0810(99)80006-7).

- Chu, C. C. (2016). The perception of mobile banking adoption: The study of behavioral, security, and trust in Thailand. *International Journal of Social Science and Humanity*, 6(7), 547 - 550.
- Delavande, A., Susann, R., & Robert, W. (2008). Preparation for retirement, financial literacy and cognitive resources. University of Michigan Retirement Research Center Working Paper, 2008-190.
- Devasagayam, R., & Hyat, S. (2007). Pedagogical value of computer-based simulations: A cross-disciplinary study. *International Journal of Business Research*, 2(5), 89 - 95.
- Ernst and Young. (2017). EY FinTech adoption index :The rapid emergence of FinTech, Asia-Pacific. Retrieved from: <file:///C:/Users/User/Downloads/ey-fintech-adoption-index-2017.pdf>.
- Garman, E. T., Leech, I. E., & Grable, J. E. (1996). The negative impact of employee poor personal financial behaviors on employers. *Journal of Financial Counseling and Planning*, 7(1), 157-168.
- Gathergood, J. (2012). Self-control, financial literacy and consumer over-indebtedness. *Journal of Economic Psychology*, 33(3), 590-602. Available at: <https://doi.org/10.1016/j.joep.2011.11.006>.
- Greenspan, A. (2005). The importance of financial education today. *Social Education*, 69(2), 64-66.
- Hanna, M. E., Hill, R. R., & Perdue, G. (2010). School of study and financial literacy. *Journal of Economics and Economic Education Research*, 11(3), 29-37.
- Hogarth, J. M., & Hilgert, M. A. (2002). Financial knowledge, experience and learning preferences: Preliminary results from a new survey on financial literacy. *Consumer Interest Annual*, 48(1), 1-7.
- Hung, A., Parker, A., & Yong, J. (2009). Defining and measuring financial literacy. RAND Working Paper Series No. WR-708.
- Janor, H. (2016). Financial literacy and investment decisions in Malaysia and United Kingdom: A comparative analysis. *Malaysian Journal of Society and Space*, 12(2), 106- 118.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica: Journal of the Econometric Society*, 47(2), 263-291. Available at: <https://doi.org/10.2307/1914185>.
- Khurshed, I. (2014). Gender disparities in financial literacy among university level students. *City University Research Journal*, 4(2), 202-207.
- Lee, B. K., & Ong, A. (2001). *Personal financial planning in Malaysia-your blueprint to financial success*. Singapore: AFPJ Pte Ltd.
- Lusardi, A., & Mitchell, O. S. (2007). Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business Economics*, 42(1), 35-44. Available at: <https://doi.org/10.2145/20070104>.
- Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of Consumer Affairs*, 44(2), 358-380.
- Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: An overview. *Journal of Pension Economics & Finance*, 10(4), 497-508. Available at: <https://doi.org/10.1017/s1474747211000448>.
- Lusardi, A., & Mitchell, O. (2011b). Financial literacy and planning: Implications for retirement wellbeing. In *Financial Literacy: Implications for Retirement Security and the Financial Marketplace*. Eds. O. S. Mitchell and A. Lusardi (pp. 17-39). Oxford: Oxford University Press.
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5-44. Available at: <https://doi.org/10.1257/jel.52.1.5>.
- Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics & Finance*, 14(4), 332-368. Available at: <https://doi.org/10.1017/s1474747215000232>.
- Matewos, K., & Kuar, J. (2015). Financial literacy and management of personal finance: A review of recent literatures. *Research Journal of Finance and Accounting*, 6(13), 92-106.
- Navickas, M., Gudaitis, T., & Krajnakova, E. (2014). Influence of financial literacy on management of personal finances in a young household. *Business: Theory and Practice*, 15(1), 32-40. Available at: <https://doi.org/10.3846/btp.2014.04>.
- OECD. (2011). High-level principles on financial consumer protection. Retrieved from www.oecd.org/daf/fin/financial-markets/48892010.pdf.
- OECD. (2018). G20/OECD INFE policy guidance on digitalisation and financial literacy.

- Olawale, F., & Olabanji, O. (2014). Financial literacy studies in South Africa: Current literature and research opportunities. *Mediterranean Journal of Social Sciences*, 5(20), 409-409.
- Principato, C. (2021). Why Fintech brands have the trust of consumers, even if 'fintech' doesn't. Retrieved from: <https://morningconsult.com/2021/06/08/fintech-trust-awareness/>.
- Robb, C. A., & Sharpe, D. L. (2009). Effect of personal financial knowledge on college students' credit card behavior. *Journal of Financial Counseling and Planning*, 20(1), 25-43.
- Streeter, W. W. (2003). How's your financial literacy? American bankers association. *ABA Banking Journal*, 95(10), 4.
- Tufano, P. (2009). *Financial innovation*. In George Constantinides, Milton Harris and Rene Stulz, (Eds.), *Handbook of the Economics of Finance* (Vol. 1A). North-Holland: Elsevier.
- Van Rooij, M., Lusardi, A., & Alessie, R. (2009). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449-472.
- Veijalainen, J., Terziyan, V., & Tirri, H. (2006). Transaction management for m-commerce at a mobile terminal. *Electronic Commerce Research and Applications*, 5(3), 229-245. Available at: <https://doi.org/10.1016/j.elerap.2005.10.010>.
- Von Gaudecker, H. M. (2011). How does household portfolio diversification vary with financial sophistication and advice? (No. 11238). Munich Center for the Economics of Aging (MEA) at the Max Planck Institute for Social Law and Social Policy.
- William, L. (2016). Influencing factors to mobile phone adoption among urban youth in Botswana. *Journal of Media and Communication Studies*, 8(1), 8-14. Available at: <https://doi.org/10.5897/jmcs2015.0474>.
- Worthington, A. C. (2006). Debt as a source of financial stress in Australian households. *International Journal of Consumer Studies*, 30(1), 2-15. Available at: <https://doi.org/10.1111/j.1470-6431.2005.00420.x>.
- Yakoboski, P., Lusardi, A., & Hasler, A. (2018). Millennial financial literacy and fin-tech use: who knows what in the digital eras? Insights from the 2018 P-Fin index. Retrieved from: <https://arc.accesslex.org/fe-utilization/50/>.

The views and opinions expressed in this article are the views and opinions of the author(s). The Journal of Social Economics Research shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising from the use of the content.