FINANCIAL TECHNOLOGY AND CONSUMER FINANCIAL SATISFACTION

Aws AlHares *, Rawdha Elareer **

* *Corresponding author*, College of Business, University of Doha for Science and Technology, Doha, Qatar
Contact details: College of Business, University of Doha for Science and Technology, 24449 Arab League St., Doha, Qatar
** College of Business, University of Doha for Science and Technology, Doha, Qatar

OPEN ACCESS

How to cite this paper: AlHares, A., & Elareer, R. (2024). Financial technology and consumer financial satisfaction [Special issue]. *Journal of Governance & Regulation, 13*(1), 489–498.
https://doi.org/10.22495/jgrv13i1siart21

ISSN Online: 2306-6784
ISSN Print: 2220-9352

Received: 08.04.2023
Accepted: 26.03.2024

JEL Classification: G30, G32, G34, G38, M40, M41, M48
DOI: 10.22495/jgrv13i1siart21

Abstract

Financial technology (FinTech) quick development had a significant impact on consumers' financial lives, particularly their level of financial pleasure. The rise of mobile payments has been somewhat accelerated by the advent of FinTech. This study's goal is to examine how FinTech used in payments affects consumer financial happiness using information from the Organisation for Economic Co-operation and Development (OECD) 2018 and 2021 National Financial Capability Study (NFCS). Given that the consumer financial happiness variable is non-continuous and ordered, the probit regression approach is used to get estimates that are more accurate. The empirical results of this study indicate that FinTech positively contributes to consumer financial satisfaction. In addition, this study selects financial education and financial capability as mediating variables to explore the possible influence channels between the development of mobile payments and the increase in consumer financial satisfaction. The mediating effects analysis demonstrates that FinTech positively affects financial education and financial capability, ultimately increasing consumer financial satisfaction. These findings have implications for consumer policymakers when promoting FinTech to consumers and helping them increase their financial satisfaction through mobile payments.

Keywords: Mobile Payments, Consumer Financial Satisfaction, Financial Capability, Financial Technology, Qatar

Authors' individual contribution: Conceptualization — A.A. and R.E.; Methodology — A.A. and R.E.; Validation — R.E.; Formal Analysis — A.A. and R.E.; Investigation — A.A.; Resources — A.A. and R.E.; Data Curation — A.A. and R.E.; Writing — Original Draft — A.A. and R.E.; Writing — Review & Editing — A.A. and R.E.; Supervision — A.A.; Project Administration — R.E.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1. INTRODUCTION

During the past ten years, financial technology (FinTech) has impacted every aspect of the financial industry, changing investment and financing models as well as consumer payment methods. Mobile payment methods, which rely on third-party platforms for processing payments, are becoming more and more popular among customers due to their advantages in terms of simple transactions, speedy payments, portability, and anti-counterfeiting. Mobile payments are thus used in this study as a quantitative variable to examine how FinTech applied to payments affects customer financial happiness. FinTech is commonly referred to in existing research as digital technologies utilizing big data and blockchain that can increase the operational effectiveness of the financial system and encourage the integration of financial services with information and communications technologies (ICTs). A key offshoot branch of the FinTech industry, the growth of mobile payments may be seen as a significant expression of the field's development.

Disintermediation has advanced, resulting in the global rise of a cashless society and technical advancements. Mobile payments, which span a broader range than cashless payments conceptually, are characterized in this study as using mobile phones, pads, and other mobile terminals to pay bills. The People's Bank of China said that the total number of mobile transactions in China had surpassed the total number of bank card transactions by 43%. In certain areas, such as Western Europe, the extensive use of physical bank cards may limit the rise of mobile payments in the medium term, but the combination of retail operators and cutting-edge information technology makes the use of mobile payments financially promising. The number of people who utilize mobile payments is increasing, along with the total value of mobile payments. According to the China Internet Network Information Center's (CNNIC) study of Internet development, 904 million people in China now make online payments, accounting for 87.6% of all Internet users globally (Dong, 2022). The five-year statistical report on China's Internet growth, published in 2018, reveals that Internet wealth management users are continuing to increase from 78.49 million in 2014 to 1.5 billion in 2018, with FinTech quickly growing and delivering more creative financial services and products. Consumers have long preferred credit cards in the Organisation for Economic Co-operation and Development (OECD) countries. According to the National Consumer Statistics Agency, in 2020 more than 80% of OECD consumers will be using credit cards. Bank of America figures show that in June 2022, credit card purchases rose 16% over the previous year (Taskinsoy, 2020). Credit cards offer ease for purchasing, but when the amount is not completely repaid, significant interest rates apply, making credit card overdraft an expensive kind of debt. The fast adoption of mobile payments has been made possible by the ongoing rise in Internet wealth management consumers. Small, medium, and big retailers now often register, set up QR codes to collect payments, and develop online transfer payment options. Consumers may now use cashless electronic payments in the retail sector thanks to the popularity of cashless collection operations. Mobile payments are getting more well-known and are eventually going to overtake traditional forms of payment for consumers.

In recent decades, a sizable and expanding body of scholarship has examined the factors that influence consumer financial contentment. Financial contentment was conceptualized as the investor's assessment of their current financial situation. Moreover, a key element of subjective wellness is consumer financial contentment. More precisely, raising customer happiness with their financial status has the potential to increase consumer happiness. However, there are significant parallels between the variables that impact financial contentment and those that affect consumers' subjective well-being, including age, marital status, income, and risk attitudes. Hsieh (2003) discovered in 2001 that age and income have non-linear impacts on consumer financial happiness. This effect persisted even when other social factors including gender, race, and physical condition were taken into account. Plagnol (2011) also claimed that consumer financial contentment varies with age and peaks in middle age.

Consumer financial aptitude to manage risk and capture opportunities could no longer be disregarded in today's financial marketplaces. Consumers would immediately benefit from the expanded financial capability, according to earlier research. Conceptually, two essential components of financial competence are financial practices and financial knowledge. The capacity to handle money is referred to as financial literacy in the original definition. Financial literacy was further defined as the combination of present financial knowledge, present financial awareness, and future financial attitudes as it gained more and more significance. Several studies have shown that individuals who follow sound financial habits are more likely to be content with their financial situation.

For the reasons listed below, it is important to look at FinTech and customer financial pleasure. First, research that has already been done has shown that a crucial component of consumer pleasure is financial contentment. By accurately identifying these variables, customers may utilize mobile payments to improve their wellness and happiness. Second, it may serve as motivation for the FinTech industries, giving them an edge over rivals. Finally, earlier research has shown that the promotion of FinTech may reduce regional poverty and aid in the implementation of government objectives. By pushing FinTech to customers, this study can inform policymakers, which has significant practical implications.

Just a few studies have employed empirical research to investigate the relationship between FinTech applied to payments and consumer financial happiness, despite the fact that significant study has been conducted on each topic independently. To address the vacuum in the theoretical disciplines, this study will look at the elements and effect channels of FinTech affecting customer financial happiness. Financial competence and education will be looked at as important mediators in order to give a more nuanced explanation for how FinTech positively impacts financial contentment.

While there has been significant research conducted independently on the influence of FinTech and consumer financial satisfaction, only a limited number of studies have employed empirical research to explore the link between FinTech in payments and consumer financial satisfaction. This study aims to investigate the factors and pathways through which FinTech impacts consumer financial satisfaction, addressing a gap in theoretical understanding. Moreover, to offer a more nuanced explanation for the positive contribution of FinTech to financial satisfaction, the study will examine financial education and financial capability as crucial mediating factors. This study's goal is to further explore the potential effect pathways and look into how FinTech applied to payments affects customer financial happiness. As a result, this study adds to the body of knowledge about the connections between FinTech used in payments and consumer financial pleasure, in contrast to other studies that primarily looked at broad factors affecting financial well-being. The literature in related disciplines is further enriched by this study's exploration of the mediating functions of financial education and financial capacity.

This study aims to investigate the impact of FinTech applied to payments on consumer financial satisfaction and analyse potential influence channels. Unlike existing studies that predominantly focus on general determinants of financial well-being, this research contributes to the literature by specifically examining the associations between FinTech in payments and consumer financial satisfaction. Additionally, the study explores the mediating roles of financial education and financial capability, providing a richer understanding of related fields.

Utilizing data from the National Financial Capability Study (NFCS) in 2018 and 2021, the subsequent sections will unfold as follows. Section 2 reviews prior literature on consumer financial satisfaction and the effects of mobile payments, presenting the developed hypotheses. Section 3 introduces the chosen data, variable specifications, and empirical methods. Section 4 presents empirical findings, delving into the mediating roles of financial education and financial capability. The study concludes with relevant recommendations in Section 5.

2. LITERATURE REVIEW

FinTech has revolutionized the way consumers handle their finances and make payments. With advancements in technology, consumers now have access to a range of financial services through mobile devices and online platforms, from managing their finances to making payments. The integration of FinTech in the payment process has been shown to improve consumer financial satisfaction by offering more convenient, secure, and efficient payment options. Studies have shown that FinTech can indeed improve consumer financial satisfaction in the payment process. The OECD conducted a study on this topic, analysing data from multiple countries, and found that consumers who use FinTech payment options are more likely to report higher levels of satisfaction with their financial services. This is because FinTech payment options offer convenience, speed, and security, which are important factors for consumers when choosing a payment method.

Vera-Toscano et al. (2017) put forward a theory that consumer financial satisfaction can be measured by asking consumers directly through surveys and questionnaires. This approach aligns with previous research in the field. The authors conducted a study to test their theory, using a sample of Spanish consumers. They used a structured questionnaire that included both direct measures of financial satisfaction and indirect measures such as income, wealth, and demographic characteristics. The results showed that direct measures of financial satisfaction were positively related to overall life satisfaction and financial literacy, and negatively related to financial stress and financial worry (Vera-Toscano et al., 2017).

Furthermore, the results of the study by Vera-Toscano et al. (2017) showed that direct measures of financial satisfaction were more predictive of overall life satisfaction compared to indirect measures such as income and wealth. This finding supports the arguments made by Hwang and Park (2023), who argue that direct measures of financial satisfaction provide a more accurate and reliable assessment compared to indirect measures. The findings of Vera-Toscano et al. (2017) contribute to the growing body of research on consumer financial satisfaction and provide support for the use of direct measures of financial satisfaction in research and practice. By directly measuring financial satisfaction, researchers and practitioners can gain a better understanding of the factors that contribute to consumers' overall financial well-being and develop targeted strategies to improve financial satisfaction.

The rapid development of FinTech has revolutionized the financial industry and had a profound impact on consumers' financial lives. With advancements in technology and the increasing demand for convenient, accessible, and cost-effective financial services, FinTech has become a major player in the financial services sector. One of the ways in which FinTech has affected consumers' financial lives is by increasing their financial satisfaction.

In addition, FinTech has improved financial literacy among consumers. For example, robo-advisors provide consumers with personalized investment advice and portfolio management services, enabling them to make more informed investment decisions. Similarly, personal finance management apps provide consumers with an overview of their financial situation and help them manage their finances more effectively. Another way in which FinTech has affected consumers' financial lives is by providing alternative lending options.

Financial satisfaction refers to the feeling of contentment and fulfilment with one's financial status. In today's world, where money is a crucial aspect of daily life, studying financial satisfaction has become increasingly prominent. The importance of studying financial satisfaction can be attributed to several factors. Firstly, financial satisfaction plays a significant role in determining one's overall happiness and well-being. Secondly, financial satisfaction is linked to stress and anxiety levels. Financial stress and anxiety can have a negative impact on a person's physical and mental health. Thirdly, financial satisfaction is crucial for financial stability and security. People with higher levels of financial satisfaction are more likely to have a stable financial future and are less likely to experience financial difficulties (Sarwar et al., 2023). This stability can help individuals to plan for their future and achieve their financial goals. Fourthly, financial satisfaction can impact one's relationship with money. The importance of studying financial satisfaction is clear. It contributes to overall happiness and well-being, reduces stress and anxiety, provides financial stability and security, and impacts one's relationship with money. Further research in this area is crucial to understanding the complex relationship between financial satisfaction and other aspects of life.

Financial satisfaction is a concept that encompasses consumers' perceptions of their current and future financial well-being (Netemeyer et al., 2018). It is often viewed from a sustainable perspective, recognizing that financial stability is not just about having enough resources in the present, but also having enough to meet future needs and maintain financial stability over time. One important aspect of financial satisfaction is risk-averse attitudes, where consumers with high levels of financial satisfaction tend to be more risk-averse, concerned with preserving their current financial status and avoiding potential losses

(Netemeyer et al., 2018). Precautionary funding needs also play a role, with financially satisfied consumers more likely to set aside funds for unexpected expenses, such as job loss or medical emergencies, which increases their overall security and reduces financial stress (Netemeyer et al., 2018). Loss-absorbing capacity is another key factor, with financially satisfied consumers having a higher ability to withstand financial setbacks without significant harm to their overall financial situation. This can be achieved through savings, insurance coverage, and well-diversified investments. Finally, perceptions of financial behavior, such as responsible spending, saving, and debt repayment, also contribute to financial satisfaction (Netemeyer et al., 2018). Financial satisfaction is a multi-dimensional concept that reflects risk-averse attitudes, precautionary funding needs, loss-absorbing capacity, and perceptions of financial behavior (Netemeyer et al., 2018).

Thorstein Veblen, an American economist, and sociologist, conducted a study on the concept of utility and how it relates to individuals' financial situation. In his study, he concluded that individuals tend to subjectively compare their financial situation with that of their perceived peers. Veblen's theory of subjective comparison is based on the idea that people use social comparison as a way to determine their own financial status. He believed that people judge their own wealth or income by comparing it to the wealth and income of others, rather than by evaluating it objectively. According to Veblen, this is a result of the desire for prestige and social status, as people strive to be perceived as being wealthier or more successful than their peers (Veblen, 2017). Veblen's work has been widely accepted and has influenced the fields of economics, sociology, and psychology.

Financial satisfaction is an important aspect of an individual's subjective well-being or overall satisfaction in the OECD countries. It refers to a person's perceived level of contentment with their financial situation and their ability to meet their financial needs and desires. Studies have shown that financial satisfaction is positively related to overall life satisfaction. In a survey conducted by the OECD, it was found that individuals who reported high levels of financial satisfaction also reported higher levels of overall life satisfaction. This relationship between financial satisfaction and overall life satisfaction has been consistently found across various countries and cultures. Furthermore, financial satisfaction has been shown to have a significant impact on other aspects of an individual's life, such as their health, work satisfaction, and relationships (Fan & Ryu, 2023). For example, individuals who report high levels of financial satisfaction have been found to experience lower levels of stress and depression (Fan & Ryu, 2023). They are also more likely to report higher levels of job satisfaction and higher levels of relationship satisfaction (Fan & Ryu, 2023). Despite its importance, financial satisfaction is not evenly distributed among individuals. Factors such as income, education, and employment status have been shown to influence an individual's level of financial satisfaction (OECD, 2013). For example, individuals with higher levels of income and education tend to report higher levels of financial satisfaction, while those who are unemployed or have lower levels of income tend to report lower levels of financial satisfaction (OECD, 2013). Financial satisfaction is a critical aspect of an individual's subjective well-being and overall satisfaction in the OECD countries. It is positively related to overall life satisfaction and has a significant impact on other aspects of an individual's life, such as their health, work satisfaction, and relationships. The level of financial satisfaction varies among individuals and is influenced by factors such as income, education, and employment status.

The advancement of financial technology, or FinTech, has revolutionized the financial services industry, providing innovative solutions for consumers and businesses alike. One key aspect of FinTech is the rise of mobile payments, which has taken off in recent years, driven by the increasing popularity of smartphones and the growing need for convenient and efficient payment methods. The use of mobile payments is not limited to consumers, as businesses have also started to adopt this technology, recognizing its potential to improve the customer experience and reduce costs. The development of mobile payments has also been facilitated by advances in FinTech such as blockchain technology, which provides a secure platform for transactions and eliminates the need for intermediaries, reducing the costs and increasing the efficiency of the payment process. In addition, FinTech companies are also using artificial intelligence and machine learning to provide customized payment solutions and improve the user experience. The growth of mobile payments has been given a huge boost by the advancement of FinTech. With increasing smartphone usage, the growing need for convenient and efficient payment methods, and the use of innovative technologies such as blockchain and artificial intelligence, mobile payments are expected to continue to grow and become an even more important part of the financial services landscape.

FinTech has been a catalyst in transforming the financial services industry and has had a significant impact on consumer financial satisfaction in the OECD. The integration of technology in payments has made transactions faster, more convenient, and more secure. The increase in digital payment options has been one of the most notable effects of FinTech applied to payments. The widespread adoption of mobile payment services such as Apple Pay, Venmo, and Square has made it easier for consumers to make transactions without the need for cash or credit cards. This has improved the overall user experience and has been a significant factor in increasing consumer satisfaction with financial services. Moreover, FinTech companies have introduced new security measures to protect customer data, which has improved consumer confidence in the security of their financial information. For example, the use of biometric authentication, encrypted data storage, and secure payment gateways has made it more difficult for fraudsters to access consumer financial information (KPMG, 2019). In addition to increased security, FinTech companies have also reduced transaction costs, providing consumers with more affordable financial services. FinTech companies have made it easier for consumers to manage their finances by providing real-time access to their financial information and allowing them to make transactions from their mobile devices. This has improved consumer financial satisfaction by providing them with greater control over their finances and enabling them to make informed decisions about their finances. The integration of FinTech in payments has improved consumer financial satisfaction in the OECD by increasing accessibility, improving user experience, and providing more secure and cost-effective financial services. The continued adoption of FinTech services is expected to further improve consumer financial satisfaction and revolutionize the financial industry.

Mobile payments refer to the use of mobile devices such as smartphones or tablets for making financial transactions, such as payments for goods or services. This method of payment has become increasingly popular in recent years due to the widespread adoption of mobile devices and the convenience they offer for making payments on-the-go. However, despite these concerns, mobile payments have been found to be generally secure, with many providers implementing measures such as encryption and multi-factor authentication to protect users' sensitive information. In terms of consumer financial satisfaction, a study by Ghosh (2024) found that users who use mobile payments are generally more satisfied with their financial services than those who do not. This may be due to the increased convenience and accessibility that mobile payments offer, allowing users to manage their finances more easily and efficiently. Overall, the use of mobile payments has the potential to greatly improve consumer financial satisfaction by offering a more convenient and accessible way to make financial transactions. As mobile devices continue to become more ubiquitous and technology continues to advance, it is likely that mobile payments will continue to grow in popularity and play a more prominent role in the world of finance.

Kim et al. (2023) conducted a comprehensive study on the benefits and popularity of mobile payments among consumers. The authors referenced numerous studies and reports to support their findings and to provide a comprehensive understanding of the topic. The authors noted that the widespread adoption of mobile payments is due to the convenience it offers to consumers. Mobile payments allow for transactions to be made anywhere, at any time, without the need for cash or physical cards. This eliminates the need for consumers to carry around physical wallets, reducing the risk of theft and loss (Kim et al., 2023). In addition, the authors emphasized the increased security offered by mobile payments. Transactions are encrypted, and sensitive information is stored securely on the device, reducing the risk of fraud (Kim et al., 2023). The authors also noted the integration of digital wallets as a significant advantage of mobile payments. This allows consumers to store and manage their payment information in one place, streamlining the checkout process and making it easier for consumers to manage their finances (Kim et al., 2023). The authors also cited data that showed the growing popularity of mobile payments among consumers. According to a report by the Federal Reserve, the number of mobile payment users has increased rapidly, with over 50% of consumers using this payment method regularly (Kim et al., 2023). Another study found that consumers are becoming more comfortable with mobile payments, with almost 70% of users indicating that they feel safe using this payment method (Kim et al., 2023). Kim et al. (2023) provided a comprehensive understanding of the benefits and popularity of mobile payments. The authors referenced numerous studies and reports to support their findings, emphasizing the convenience, security, and integration offered by mobile payments, and the growing popularity of this payment method among consumers.

Chawla et al. (2023) conducted a study on the impact of FinTech on consumer behavior and highlighted that consumers are becoming increasingly conscious of their privacy protection while enjoying the perceived convenience of mobile payments. This is a crucial issue as consumers are balancing the desire for convenience with the need for privacy in the era of digital financial transactions. According to a survey conducted by the authors, consumers are becoming more aware of their privacy rights and are increasingly concerned about the use of their personal data. However, despite these privacy concerns, consumers are still using mobile payments due to the convenience they provide (Chawla et al., 2023). This is in line with the findings of a study by More et al. (2023), which found that consumers appreciate the ability to make payments on the go and find mobile payments to be fast and easy. Moreover, Chawla et al. (2023) emphasized the importance of transparency and security measures in the FinTech industry. The authors pointed out that it is crucial for FinTech companies to be clear about how they collect and use personal data, and to implement robust security measures to protect consumers' privacy. This is supported by the findings of a study by Kim and Kim (2023), which showed that consumers are more likely to use mobile payments if they feel that their personal information is secure. Chawla et al. (2023) study highlights that consumers are becoming increasingly conscious of their privacy protection while enjoying the perceived convenience of mobile payments in the FinTech era. Consumers are balancing the need for convenience with the desire for privacy, and it is crucial for FinTech companies to ensure that they are transparent about data collection and use, and implement strong security measures to protect consumers' privacy. The following hypothesis is being tested following the study's stated goals and proposed model:

H1: There is a positive relationship between FinTech and consumer financial satisfaction.

Financial education and financial capability have become increasingly important in the OECD in recent years as a means to address financial inclusion and inequality. The concept of financial literacy refers to the knowledge and skills that individuals need to manage their finances effectively, while financial capability refers to the ability to apply that knowledge and skills in practice. According to the OECD (2013), financial education and financial capability have a mediating role in helping individuals to make informed decisions about their finances, thereby increasing their financial well-being and reducing the risk of financial exclusion. This is especially relevant for lower-income and vulnerable groups who may face greater financial challenges and be more susceptible to financial risks. Financial education and financial capability can help individuals understand basic financial concepts, such as budgeting, saving, credit and debt management, and how to navigate the financial system, including access to financial services. This knowledge and understanding can help individuals to make informed decisions about their finances and avoid costly mistakes, such as taking on excessive debt or falling prey to scams. In addition to individual benefits, financial education, and financial capability can also contribute to the broader goals of economic growth and stability by promoting more informed and responsible financial decision-making and reducing the risk of financial instability. A number of initiatives have been launched in OECD countries to promote financial education and financial capability, including national strategies, financial literacy programs, and financial literacy assessments. Financial education and financial capability play a crucial role in promoting financial inclusion and reducing financial inequality in the OECD. By helping individuals to make informed decisions about their finances, these initiatives can contribute to greater financial well-being, economic growth, and stability. The following hypothesis is being tested following the study's stated goals and proposed model:

H2: Financial education mediates the relationships between FinTech and consumer financial satisfaction.

FinTech has been instrumental in enhancing financial capability and raising consumer financial stability in OECD countries. FinTech solutions have made financial services more accessible and affordable, providing consumers with the necessary tools to make informed and effective financial decisions. Financial capability refers to the ability of individuals to understand and manage their finances, and FinTech solutions have been designed to meet this need. Mobile wallets, robo-advisors, and budgeting tools provide real-time information on spending habits, investment portfolios, and debt levels, enabling consumers to take control of their finances and make informed decisions (Bhaskar et al., 2023). In addition, the development of FinTech has contributed to financial inclusion by providing digital solutions that reach individuals who have been previously excluded from traditional financial services. For example, mobile banking has enabled consumers in developing countries to access financial services, such as remittances and payments, without the need for a traditional banking institution (Bhaskar et al., 2023). Financial stability refers to the resilience of the financial system, and it is impacted by the financial capability of consumers. With the help of FinTech solutions, consumers are able to access affordable financial services that are tailored to their needs, reducing the risk of overspending, defaulting, and bankruptcy (Bhaskar et al., 2023). Furthermore, FinTech solutions have also improved the financial literacy of consumers by providing educational resources and financial advice. This has helped consumers to make better financial decisions, leading to increased financial stability (The World Bank Group, 2018). The development of FinTech has had a significant impact on the financial industry, enhancing financial capability and raising consumer financial stability in OECD countries. The digital solutions provided by FinTech companies have made financial services more accessible and affordable, providing consumers with the tools necessary to make informed and effective financial decisions. The following hypothesis is being tested following the study's stated goals and proposed model:

H3: Financial capability mediates the relationship between FinTech and consumer financial satisfaction.

3. RESEARCH METHODS

This study intends to investigate how FinTech used in payments and customer financial happiness are related. The econometric estimation is first described, followed by descriptions of the data and variables. Second, correlation analysis between dependent, independent, and other key variables is carried out in this study. Third, the robustness of the baseline regressions between mobile payments and consumer financial happiness is confirmed. More research is done on the mediating functions of financial capacity and financial education. The data used in this analysis come from the NFCS monitoring dataset for the five distinct OECD nations between 2018 and 2021. The NFCS is a nationwide questionnaire-based online survey of more than 25,000 citizens coming from these countries. Based on the American Community Survey, the survey findings are weighted to reflect the distribution of the population in the census. Age, the number of children, the present living situation, financial contentment, marital status, whether or not they work part-time, yearly income, and other factors are among the questions on the questionnaire. The information on mobile payments will be taken from the questionnaire for this study. The research samples used in this study originate from the NFCS waves from 2018 and 2021 since only those two waves include questions on consumer mobile payments.

Table 1. Variable specification

Type	***Variables***	***Attribute***
Dependent variable	*Consumer financial satisfaction*	"How satisfied are you with your current personal financial condition?" From 1 (not at all satisfied) to 10 (extremely satisfied).
Independent variable	*Mobile payments*	"How often do you pay with your cell phone code at retail stores?" 1 — never, 2 — sometimes, and 3 — frequently.
Mediating variables	*Financial education* *Financial capability*	A sum of z-scores of objective and subjective financial capabilities.
Control variables	*Credit record rating*	"What do you consider your credit situation to be?" From 1 (very bad) to 5 (extremely good).
	Risk attitude	"When it comes to financial investments, what is your desire to take risks?" Increasing preference for risk from 1 to 10.
	Participating in financial markets	"Are there any stocks, bonds, or mutual funds in your account that you own shares of?" 1 — yes, and 0 — no.
	Male	1 = male, and 0 = female.
	Some college to bachelor's degree	1 = male, and 0 = female.
	Marital status	1 = being married, and 0 = otherwise.

To guarantee the quality and dependability of the empirical results, certain samples with missing values are omitted from the data processing in this study based on the variables chosen. For the NFCS in 2018 and 2021, the initial sample size is 39,000. Following Xu et al. (2023) methodology, the excluded samples include those who gave "don't know" or "prefer not to say" answers when asked how frequently they use mobile payments and those who gave similar responses when asked how satisfied they are with their financial condition (30,100) people make up the study's sample size. According to the Xiao and Porto (2017) research, customer financial satisfaction is evaluated on a scale of 1 to 10, where 1 denotes "not at all happy" and 10 denotes "extremely satisfied". The initial replies run the gamut from 1 (frequently) to 3 (never). In this study, if the response is 3, the variable for *mobile payments* is re-coded as 1, and if the response is 1, it is re-coded as 3. The new variable for *mobile payments* therefore spans from 1 (never) to 3 (frequently). Also, if consumers obtained financial education in high school, college, the workplace, or the military, the mediating variable of financial education is classified as 1, otherwise, it is coded as 0. The question *"Do you believe yourself to be adept at handling day-to-day money matters?"* is used to evaluate subjective financial capability. The ratings run from 1 (very terrible) to 7 (acceptable) (very good). On a five-point scale, objective financial capacity is assessed. Five questions on income and spending, debt repayment, emergency savings, child education savings, and retirement savings were asked of the respondents. If they engaged in any of these activities, the variable is coded as 1, otherwise, it is coded as 0. The financial capacity index is the product of the subjective and objective financial competence z-scores. The variables of *gender*, *age*, *education levels*, *marital status*, *number of dependent children*, *ethnicity*, *risk attitude*, *participation in financial markets*, *credit situations*, *annual income*, and *subjective math ability* are also controlled, in line with the methodologies used by Xiao and Porto (2017).

Given that the independent variable, *mobile payments*, and the dependent variable, *consumer financial satisfaction*, are both discrete and ordered and that the method of ordinary least squares (OLS), which is typically used for continuous variables, is not appropriate for this study, ordered probit regression is used instead. The OLS regression is also carried out, and the outcomes are used as references.

4. RESULTS

Consumers have a reasonably high subjective assessment of their financial well-being, as shown by the mean score of 5.75 out of 10, which is the measure of consumer financial contentment. Consumers' ratings of their financial contentment range from 1 to 10, with a standard deviation of 2.81 — higher than that of other variables — indicating that there is a lot of variation in how they rate their financial pleasure. According to the average score of 1.35 out of 3, customers either "never" or "sometimes" utilize mobile payments. The mean score of 4.95 out of 10 for risk attitudes among the responding customers indicates a reduced risk preference in terms of control variables. According to the financial market participation variable, 33% of consumers, or just under one-third of all consumers, invest in stocks, bonds, and other financial goods, or engage in other financial activities. Also, the majority of customers are confident in their arithmetic abilities, scoring an average of 5.63 out of 7. The average credit rating score is 3.01 out of 5, showing that more respondents regard their own credit evaluation as being high. Customers are married (54%), 73% of them are white, and 44% of consumers are men. In terms of education, 61% of customers have completed a bachelor's degree or attended college. Regarding demographics, consumers aged 65 and over make up the majority (20%).

Table 2. Correlation matrix

	Consumer financial satisfaction	*Mobile payment*	*Financial education*	*Financial capability*	*Risk attitude*	*Participating in the financial markets*	*Credit record rating*	*Annual income*	*Subjective math capability*
Consumer financial satisfaction	1.000								
Mobile payment	0.12***	1.000							
Financial education	0.09***	0.06***	1.000						
Financial capability	0.55***	0.03***	0.017***	1.000					
Risk attitude	0.38***	0.28***	0.15***	0.28***	1.000				
Participating in the financial markets	0.39***	0.09***	0.14***	0.36***	0.33***	1.000			
Credit record rating	0.44***	0.06***	0.06***	0.44***	0.15***	0.25***	1.000		
Annual income	0.36***	0.04***	0.04***	0.41***	0.26***	0.34***	0.26***	1.000	
Subjective math capability	0.04***	-0.04***	0.13***	0.42***	0.16***	0.12***	0.14***	0.16***	1.000

Correlation analysis findings *consumer financial satisfaction*, *mobile payments*, *risk attitude*, *participating in financial markets*, *credit record rating*, *annual income*, and *subjective math capability* are the factors that are correlated, as shown in Table 2. The majority of relationships are predictable. *Consumer financial satisfaction* is strongly and favourably connected with both *annual income* and the condition of one's credit history. Nonetheless, it is important to note that there is a negative link between *subjective math capability* and *mobile payments*. The majority of the control variables turn out to be significantly and favourably connected to *consumer financial satisfaction*. With a correlation of 0.08 at the 1% level of significance, it is also found that *mobile payments* and *credit record rating* are negatively correlated. One argument is that people with better credit histories could favour risk-free financial goods or practice conservative and sensible financial management. This category of consumers may, however, view FinTech payment methods negatively since they view the creative character of mobile payments as hazardous. Also, at the 1% level of significance, a correlation value of 0.11 shows a favourable relationship between *mobile payments* and *customer financial satisfaction*.

Table 3 displays the findings of mobile payment regressions on customer financial happiness. Only a few control variables are used in columns 1 and 2. The variable for *mobile payments* is present in column 3. Moreover, the OLS regression technique is used to regress column 1. On the other hand, Columns 2 and 3 display the empirical findings from the regressions that used the ordered probit approach. Due to the use of ordered probit regression, the results for the constant terms to be given in Columns 2 and 3 are not yet available (3). The corrected R^2 is shown in column 1. In addition, the dummy variable for OECD is controlled in all estimations since failing to account for state-level variations might result in heterogeneity and undermine the explanatory power of the empirical findings.

Table 3. Results of panel data regression

	(1)		*(2)*		*(3)*	
Mobile payments					0.23***	(0.01)
Risk attitude	0.25***	(0.01)	0.12***	0.00	0.11***	0.00
Participating in the financial markets	0.72***	(0.02)	0.32***	(0.01)	0.31***	(0.01)
Credit record rating	0.55***	(0.01)	0.23***	(0.01)	0.24***	(0.01)
Annual income	0.24***	(0.01)	0.12***	0.00	0.11***	0.00
Subjective math capability	0.07***	(0.01)	0.03***	0.00	0.04***	0.00
Male	0.12***	(0.03)	0.04***	(0.01)	0.03***	(0.01)
Age 25 to 34	0.05	(0.04)	0.05*	(0.02)	0.03**	(0.02)
Age 35 to 44	-0.24***	(0.04)	-0.11***	(0.02)	-0.13***	(0.02)
Age 45 to 54	0.72***	(0.02)	0.32***	(0.01)	0.31***	(0.01)
Age 55 to 64	0.55***	(0.01)	0.23***	(0.01)	0.24***	(0.01)
Age 65 or older	0.24***	(0.01)	0.12***	0.00	0.11***	0.00
Some college to bachelor's degree	0.07***	(0.01)	0.03***	0.00	0.04***	0.00
Postgraduate degree or higher	0.12***	(0.03)	0.04***	(0.01)	0.03***	(0.01)
Being married	0.05	(0.04)	0.05*	(0.02)	0.03**	(0.02)
White	-0.24***	(0.04)	-0.11***	(0.02)	-0.13***	(0.02)
Number of financially dependent children	0.12***	(0.03)	0.04***	(0.01)	0.03***	(0.01)
Constant	0.85***	(0.04)				
State fixed effect	yes		yes		yes	
Adjusted R^2	0.36					
Pseudo R^2			0.10		0.10	

*Notes: Ages 18 to 24 and high school or lower are the reference groups; the significance levels of 1%, 5%, and 10%, respectively, are indicated by the symbols ***, **, and *; the numbers in parentheses are robust clustered standard deviations.*

Except for the control variable *age 25 to 34*, all of the control variable coefficients in column 1 are found to be significant at the 1% level of significance. Also, the coefficients for the various age groups show both positive and negative trends, demonstrating that consumer financial pleasure does not vary linearly with age and supporting earlier findings on the relationship between age and consumer financial satisfaction.

At a 1% level of significance, the coefficient of *males* is 0.12, indicating that men tend to be more content with their financial situation than women. The findings support past studies in that risk attitude is strongly and favourably linked with consumer financial satisfaction, with the coefficient of *risk attitude* being 0.25 at a 1% level of significance.

Consumer risk tolerance has been found to be one of the elements influencing financial happiness. Increasing risk tolerance will, generally speaking, boost consumer financial happiness. Consumers are more likely to have a higher risk tolerance and, as a result, more financial happiness if they are closer to being risk-takers, or more open to risk exposure. Additionally, both university bachelor's degrees and master's degrees exhibit a significant negative correlation with consumer financial satisfaction in terms of educational attainment, and it can be hypothesized that, for those with degrees of university bachelor's degree and above, the higher the level of education, the less satisfied one is with their financial situation; conversely, as the level of education declines, the greater the level of consumer financial satisfaction. Also, at a 1% level of significance, the coefficients of *annual income* and *credit record rating* levels are 0.24 and 0.55, respectively, showing that customers are more content with their financial situation the higher the level of *annual income* and *credit record ratings*. Consumer financial contentment is considerably and favourably correlated with subjective mathematics skills. The coefficient for *marital status* is highly positive, showing that married customers are happier with their financial circumstances than single consumers. Also, the coefficient for the *number of financially dependent children* is 0.03 at a 1% level of significance, showing that the likelihood that customers would be financially satisfied may decrease as the number of financially dependent children increases. The results of the ordered probit regression in column 2 demonstrate that all control variable coefficients, including the one for *age 25 to 34*, are significant, and the signs of the positive or negative coefficients are consistent with column 1. In line with *H1*, the coefficient of *mobile payments* is 0.23 at the 1% level of significance, demonstrating a favourable association with FinTech used in payments and customer financial happiness.

In order to improve consumer financial awareness and equip them with the skills they need to respond rationally when faced with financial difficulties, there should be an increase in investment in financial education and the popularization of financial education for low-and middle-income consumers. Furthermore, it is crucial for financial institutions to implement customer surveys and feedback while building and releasing novel FinTech products. Product features and functionalities may be targetedly improved by analysing customer demands and differentiating consumer groups. Financial institutions are able to grow their markets on the basis of this, giving them a competitive edge.

Based on the aforementioned discoveries, this study puts forward the following suggestions to augment consumer financial satisfaction. Firstly, the government is urged to promote the development of FinTech businesses by financial institutions within a judicious policy framework, fostering ongoing advancements in payment methods. It is crucial to recognize that as the government eases the entry requirements for FinTech, simultaneous regulatory measures should be implemented to safeguard consumers and foster the sensible and sustainable progression of mobile payments. Furthermore, the examination of mediating effects in this study offers valuable insights into enhancing consumer financial satisfaction. Policymakers should underscore the significance of financial education, directing increased investment towards it and promoting financial literacy among low and middle-income consumers. This may involve initiatives like organizing financial education public service activities or incorporating pertinent courses in universities, aiming to elevate consumer financial knowledge. Ultimately, financial institutions, in the process of crafting and introducing innovative FinTech products, should prioritize consumer considerations.

5. CONCLUSION

Several cutting-edge financial services and financial products have emerged during the past ten years as a result of the growth of FinTech. Consumers may now conduct payment operations on their mobile devices without utilizing cash, more than making up for the drawbacks of conventional cash payments. This study intends to determine if FinTech applied to payments has a direct or indirect influence on customer financial happiness using data from the NFCS between 2018 and 2021. Data are gathered by questionnaire statistics, and financial satisfaction is used as a measure of subjective financial contentment. This study also explores the possibility of financial capacity and financial education serving as intermediaries between consumer financial happiness and FinTech payments. The results demonstrate that consumers' contentment with their present financial status may be increased by using mobile payments. Moreover, in the routes that impact consumer financial happiness from mobile payments to financial capacity, both financial education and financial capability might operate as mediating variables. Moreover, financial education and financial capacity in this study are both partially mediating factors, indicating that there are other influence channels besides the causal chains created by financial education and financial capability. FinTech applied to payments can directly and favourably impact customer financial happiness, excluding secondary beneficial impacts. There are certain issues with this study that might be resolved in follow-up research. This research exhibits certain limitations that merit attention in future investigations. Initially, owing to restricted data access, the study opts for cross-sectional data to empirically examine the connections between FinTech's application in payments and consumer financial satisfaction. However, this choice introduces a limitation in comparability across vertical dimensions. Secondly, the study relies on mobile payment data from the 2018 and 2021 NFCS to elucidate the impact of FinTech. Despite having theoretical backing, it is acknowledged that these two sets of data do not align perfectly. Unfortunately, the NFCS lacks a dedicated set of questions on FinTech impacts, compelling the study to utilize mobile payments as a proxy variable. To ensure methodological rigor and comprehensiveness in subsequent FinTech-related analyses, future research is encouraged to leverage more robust and comprehensive datasets. For the ensuing examination of FinTech, research may be done on top of more accurate and thorough data. Finally, only the ordered probit regression approach was used in this study to investigate the importance of the mobile payments variable's coefficients. In the upcoming investigations, a challenging but more accurate research strategy may be used with additional updating of the empirical model or data refining. The study makes the following suggestions for improving consumer financial satisfaction in light of the aforementioned findings. To start, the government should encourage financial institutions to expand their FinTech operations within the confines of acceptable legislative parameters and to keep supporting the modernization and transformation of payment systems. Also, it should be noted that although the government lowers the bar for entering the FinTech industry, additional regulatory measures are necessary to safeguard consumers and to promote the sensible and healthy growth of mobile payments. Second, this study's research of mediating effects can help us understand how to raise customer financial contentment. More emphasis has to be placed by policymakers on the value of financial education.

REFERENCES

Atkinson, A., & Messy, F.-A. (2013). *Promoting Financial Inclusion through financial education* (OECD Working Papers on Finance, Insurance and Private Pensions No. 34). OECD. https://doi.org/10.1787/5k3xz6m88smp-en

Bhaskar, R., Onyia, O. P., Pandey, D. K., & Ananda, S. (2023). Navigating the complexities of financial services marketing through a bibliometric analysis of the Journal of Financial Services Marketing (2009–2022). *Journal of Financial Services Marketing, 28*, 724–747. https://doi.org/10.1057/s41264-023-00239-3

Chawla, U., Mohnot, R., Singh, H. V., & Banerjee, A. (2023). The mediating effect of perceived trust in the adoption of cutting-edge financial technology among digital natives in the post-COVID-19 era. *Economies, 11*(12), Article 286. https://doi.org/10.3390/economies11120286

Chen, F., Du, X., & Wang, W. (2023). Can FinTech applied to payments improve consumer financial satisfaction? Evidence from the USA. *Mathematics, 11*(22), Article 363. https://doi.org/10.3390/math11020363

Dong, Y. (2022). Rural e-commerce poverty alleviation: Roles and outcomes. In *ICEME'22: Proceedings of the 2022 13th International Conference on E-business, Management and Economics* (pp. 29–36). Association for Computing Machinery. https://doi.org/10.1145/3556089.3556144

Fan, L., & Ryu, S. (2023). Financial debts and subjective well-being of young adults: An adaption of the stress process model. *The Journal of Consumer Affairs, 57*(4), 1576–1604. https://doi.org/10.1111/joca.12560

Ghosh, M. (2024). Empirical study on consumers' reluctance to mobile payments in a developing economy. *Journal of Science and Technology Policy Management, 15*(1), 67–92. https://doi.org/10.1108/JSTPM-02-2021-0031

Hsieh, C.-M. (2003). Income, age and financial satisfaction. *The International Journal of Aging and Human Development, 56*(2), 89–112. https://doi.org/10.2190/KFYF-PMEH-KLQF-EL6K

Hwang, H., & Park, H. I. (2023). The relationships of financial literacy with both financial behavior and financial well-being: Meta-analyses based on the selective literature review. *Journal of Consumer Affairs, 57*(1), 222–244. https://doi.org/10.1111/joca.12497

Jakit, F. H. A., Ghani, J. A., Hamid, T. A. A., & Mazlan, N. S. (2023). An analysis of socio-economic determinants affecting retirement adjustment and life satisfaction among public retirees in the Klang Valley. *International Journal of Economics and Management, 17*(2), 177–195. http://doi.org/10.47836/ijeam.17.2.03

Kang, W., & Shao, B. (2023). The impact of voice assistants' intelligent attributes on consumer well-being: Findings from PLS-SEM and fsQCA. *Journal of Retailing and Consumer Services, 70*, Article 103130. https://doi.org/10.1016/j.jretconser.2022.103130

Kim, J., Falconier, M. K., & Conway, C. A. (2023). Relationships among emotion regulation, financial self-efficacy, and financial management behaviors of couples. *Journal of Family and Economic Issues, 44*, 342–355. https://doi.org/10.1007/s10834-022-09827-2

Kim, J., & Kim, M. (2023). Influences of ethical values of e-travel agents on authenticity and trust formations: The moderating role of privacy concerns. *International Journal of Human-Computer Interaction.* https://doi.org/10.1080/10447318.2023.2254638

KPMG. (2019). *10 predictions for the future of payments: How will the payments industry stay ahead of the time zone?* https://assets.kpmg.com/content/dam/kpmg/uk/pdf/2019/11/10-predictions-for-the-future-of-payments.pdf

Moore, J. A., Suh, S., & Werner, E. M. (2017). Dual entrenchment and tax management: Classified boards and family firms. *Journal of Business Research, 79*, 161–172. https://doi.org/10.1016/j.jbusres.2017.06.007

More, P. V., Sharma, A., & D'Lima, C. (2023). Meta analysis on factors influencing mobile payment continuance intention among consumers. *Academy of Marketing Studies Journal, 27*(2). https://www.proquest.com/openview/09ca564b19534ec70ab07e80fd39678b/1?pq-origsite=gscholar&cbl=38744

Netemeyer, R. G., Warmath, D., Fernandes, D., & Lynch, J. G. (2018). How am I doing? Perceived financial well-being, its potential antecedents, and its relation to overall well-being. *Journal of Consumer Research, 45*(1), 68–89. https://doi.org/10.1093/jcr/ucx109

Organisation for Economic Co-operation and Development (OECD). (2013). *How's life? 2013: Measuring well-being.* https://doi.org/10.1787/9789264201392-en

Plagnol, A. C. (2011). Financial satisfaction over the life course: The influence of assets and liabilities. *Journal of Economic Psychology, 32*(1), 45–64. https://doi.org/10.1016/j.joep.2010.10.006

Sarwar, M. A., Nasir, J., Sarwar, B., Hussain, M., & Abbas, A. (2023). An investigation of precursors of online impulse buying and its effects on purchase regret: Role of consumer innovation. *International Journal of Innovation Science.* https://doi.org/10.1108/IJIS-12-2022-0244

Taskinsoy, J. (2020). *A move towards a cashless society accelerates with the novel coronavirus induced global lockdown.* https://doi.org/10.2139/ssrn.3747750

The World Bank Group. (2018). *Fintech and the future of financial services* (Report). https://www.worldbank.org/en/publication/fintech-and-the-future-of-finance

Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial economics, 101*(2), 449–472. https://doi.org/10.1016/j.jfineco.2011.03.006

Veblen, T. (2017). *The theory of the leisure class.* Routledge. https://doi.org/10.4324/9781315135373

Vera-Toscano, E., Rodrigues, M., & Costa, P. (2017). Beyond educational attainment: The importance of kills and lifelong learning for social outcomes. Evidence for Europe from PIAAC. *European Journal of Education, 52*(2), 217–231. https://doi.org/10.1111/ejed.12211

Xiao, J. J., & Porto, N. (2017). Financial education and financial satisfaction: Financial literacy, behavior, and capability as mediators. *International Journal of Bank Marketing, 35*(5), 805–817. https://doi.org/10.1108/IJBM-01-2016-0009

Xu, Y., Ghose, A., & Xiao, B. (2023). Mobile payment adoption: An empirical investigation of Alipay. *Information Systems Research.* Advance online publication. https://doi.org/10.1287/isre.2021.0156