

The Impact of Digital Finance on Household Consumption and Investment Behavior

Yihan Wang

*School of Business, Macau University of Science and Technology, Macao, China
1230025789@student.must.edu.mo*

Abstract. The widespread adoption of mobile internet and platform-based services has enabled digital finance to deeply integrate into residents' daily consumption and investment activities. While efficiency has been enhanced and channels have been expanded, problems such as irrational behaviors, safety risks and uneven development have also emerged simultaneously. Based on existing literature, this article examines the dual impacts of digital finance on residents' consumption and investment, and analyzes the heterogeneity at the regional, urban-rural, and age levels. It was found that digital finance could enhance the consumption convenience, reduce transaction costs, optimize the consumption structure and unleash consumption potential. However, it also brought negative effects such as irrational consumption, security risks and widening disparities. In the investment domain, digital finance has lowered the entry barriers, enriched product choices, while also amplifying information asymmetry and fraud risks. The impacts of consumption and investment behaviors showed significant differences in terms of gender, age and region. Based on this, countermeasures are proposed from three aspects: improving the regulatory system, enhancing residents' digital financial literacy, and optimizing product services, with the aim of providing references for regulating the development of digital finance and guiding rational consumption and investment.

Keywords: Digital finance, household consumption, investment behavior

1. Introduction

Due to the rapid development of big data and mobile internet in recent years, digital finance has made significant progress, thereby breaking through various constraints of traditional financial services in terms of region and threshold, and has entered various fields such as household consumption and investment. Butt et al. have provided an excellent overview of this: FinTech uses innovative tools to bring about fundamental changes in the financial industry and thus is also an important driving force for global financial transformation [1]. In excellent complement to this, Favourate Y. Mporu et al. argue that the fundamental purpose of financial digital transformation is to lower service barriers, address the pain points of traditional finance, and expand the service coverage [2]. Therefore, studying the impact of digital finance on household consumption and investment behaviors holds extremely significant practical value.

Existing literature has already discussed the impact of digital finance on residents' consumption and investment. As far as consumption is concerned, Pak et al. demonstrated that digital financial literacy affected consumption behavior by affecting service adoption [3]. Lei Du and Min Lv have proved that digital finance can effectively release the potential of household consumption and promote non survival consumption [4]. Tianqi Yu clarified that the consumption pulling effect in the eastern and western regions showed the gradient characteristics of the West greater than the middle greater than the East [5]. In terms of investment, Buttice et al. pointed out the fact that digital finance reduces access barriers but also brings fraud risks [6]. Abdallah et al. made an excellent supplement to this, that is, improving literacy is conducive to risk judgment [7]. However, it is needless to say that the existing studies mostly start from a single country or group and have not yet done systematic integration on multi-dimensional impacts. Therefore, this paper intends to make a systematic literature review and construct an integrated analytical framework to fill this gap.

This paper mainly discusses two issues: how digital finance affects residents' consumption and investment, as well as the impact differences between different groups and regions. Methodologically, it draws lessons from the systematic literature review of butt et al. And combines quantitative and qualitative analysis.

2. The impact of digital finance on residents' consumption behavior

2.1. The positive impact of digital finance on residents' consumption

Digital finance makes consumption more convenient and cheaper, optimizes consumption structure and releases consumption potential. Pak et al. pointed out that digital finance makes financial services more accessible and transaction costs lower [3]. At the same time, through personalized recommendations, it simplifies processes such as payment, account management, and credit application, enabling consumers to significantly save time and transaction expenses. The fee deduction received by users can directly reduce the actual expenditure, the payment reminder helps to avoid impulse consumption, and the customized product recommendation reduces the cost of information search. These services work together, not only reducing the financial pressure during consumption, but also lowering the psychological barrier.

Financial digitalization will lead to changes in the consumption structure of residents, shifting from the previous survival-oriented consumption aimed at meeting basic needs to more quality-oriented development and quality consumption. Through the analysis of household micro data by Lei Du and Min Lv, it is found that digital finance has a more prominent pulling effect on non survival consumption such as education, culture and entertainment, providing data support for the theory of consumption upgrading [4]. Digital finance can alleviate liquidity constraints, reduce preventive savings incentives, reduce transaction costs of consumption decisions, and thus stimulate household consumption potential. This effect is particularly evident in low-income and middle-income families and families with less spending power. Tianqi Yu's provincial panel data analysis also pointed out that digital finance got rid of the dependence of traditional finance on physical outlets, expanded the scope of services, and further improved the inclusiveness of consumption [5].

2.2. The negative impact of digital finance on residents' consumption

While stimulating consumption growth, digital finance also exposes some problems that cannot be ignored. First, too convenient payment is easy to induce irrational consumption, so that some consumers spend blindly beyond their own affordability. Second, the openness and virtualization of

digital finance increase the risk of network fraud and information leakage and weaken consumer confidence of users. Third, there are regional and group differences in the enabling effect of digital finance, which may lead to the further expansion of the consumption gap.

Irabi'ah Al Adawiyah et al. conducted a study on the Z Generation in Indonesia and found that they adopted digital payment mainly due to the digital lifestyle and the convenience of payment. The role of digital financial literacy was found to be relatively insignificant [8]. The high convenience of payment may lead to a decline in consumers' rational decision-making, triggering impulsive or premature consumption behaviors.

The inclusive effect of digital finance shows significant regional and group differences. Pak et al. found that the ability of residents to guard against digital fraud was generally low. The score given by the respondents in South Korea was only 3.76 out of 5, ranking last among all the indicators [3]. Weak safety awareness will undermine people's trust in digital consumption, and the consumption intentions of some groups will also be suppressed.

The benefits that digital finance can bring may vary from place to place and among different groups of people. Tianqi Yu found that its stimulating effect on consumption would gradually weaken from the west to the central region and then to the eastern region [5]. Lei Du and Min Lv also pointed out that digital finance is actually of no use to families that have already engaged in excessive consumption [4]. Those with poor digital infrastructure and low financial literacy are also unable to fully enjoy the benefits, which will further widen the consumption gap between regions and groups.

2.3. Analysis of heterogeneity in the impact of consumption behavior

The impact of digital finance on household consumption varies notably by region, urban versus rural location, and age group—driven by differences in local infrastructure, financial supply structures, and group behavioral traits. Tianqi Yu's research found that the consumption-driven effect of digital finance shows a gradient difference [5]. In the western regions, traditional financial services are insufficiently covered, and digital finance can play a stronger role as a substitute and driver. Lei Du and Min Lv's investigation revealed that for rural families, it is not so difficult to increase non-essential consumption through digital finance, which is different from the situation of urban residents [4]. The research conducted by Irabi'ah Al Adawiyah et al. et al. indicates that the consumption behavior of younger groups is more driven by digital lifestyles, and they have a relatively low reliance on digital financial literacy [8]. The data provided by Pak et al. indicate that the literacy scores of the 50-59 age group are significantly lower than those of the 25-29 age group. For the middle-aged and elderly groups, the construction of digital consumption trust relies on the popularization of financial knowledge and the improvement of security guarantee mechanisms [3].

The differences between various regions within the country are also quite obvious. Lu pointed out that the eastern Malaysian region would be hindered by geographical conditions and infrastructure [9]. For consumption to increase, more reliance would have to be placed on the service quality of financial institutions and the trust of users. West Malaysia needs to enhance digital literacy in order to complete its infrastructure development, and only then can it stimulate consumption growth.

3. The impact of digital finance on residents' investment behaviors

Through digital channels and intelligent services, digital finance has broken through the access threshold, service radius and information dissemination restrictions of traditional finance. Thus, the

behavior mode of residents in investment channels, product supply and decision-making methods has been changed. While expanding investment participation and optimizing asset allocation, it also amplifies the risks of information asymmetry, investment fraud and irrational decision-making, and different groups and regions are significantly affected.

3.1. The positive impact of digital finance on residents' investment

The positive impact of digital Finance on residents' investment is mainly reflected in reducing the investment threshold, enriching product choices, enhancing participation willingness and optimizing decision-making ability.

Butticè et al.'s empirical study on the Italian equity crowdfunding platforms demonstrated that digital finance can effectively reduce barriers to entry into financial markets, break the dependence of traditional investment on capital scale, expertise and physical outlets, and enable ordinary residents to participate in small equity investment [6]. By reducing the initial investment amount, disclosing project information and simplifying the transaction process, digital platforms have attracted women, ethnic minorities and other relatively marginal investor groups in traditional finance.

Abdallah et al.'s research shows that after the improvement of digital financial literacy; residents will have a more accurate understanding of investment products and a clearer risk judgment [7]. The combined effect of low fees and convenient operation of digital platforms can reduce the costs that families need to bear when making investment decisions. Pak et al.'s study based on the Korean sample also reached a similar conclusion: there is a significant positive correlation between digital financial literacy and residents' participation in stocks, insurance and other investment behavior through digital platforms [3]. Affected by these factors, digital finance will promote the transformation of residents' asset allocation from a single way of saving to diversified investment, and the awareness and ability of families to manage wealth will also be improved.

3.2. Negative impact of digital finance on residents' investments

Digital finance enhances the convenience of investment while also increasing the risks in the investment market. The main problems it brings include intensified information asymmetry, increased fraud risks, and more irrational investment behaviors.

Butticè et al. pointed out that in the digital investment environment, ordinary investors face a higher risk of fraud [6]. Some digital investment products have insufficient information disclosure and their operation mechanisms are not transparent, which will widen the information gap between investors and the financing entities. Abdallah et al. pointed out that people with lower financial literacy have insufficient awareness and ability to prevent digital fraud and are difficult to identify online investment traps [7]. Pak et al.'s quantitative research shows that the digital anti-fraud ability score of South Korean residents is very low, reflecting a general lack of risk identification ability among investors, who are easily misled by high-yield promotions and thus exhibit irrational behaviors such as herd investment and chasing gains while avoiding losses [3].

Butticè et al. observed the phenomenon of imitation and following trends on digital platforms. The decline in information search costs did not enhance decision-making rationality; instead, it made investors more likely to ignore their own risk tolerance and make more irrational decisions [6]. The risks associated with digital finance have spread, and market fluctuations—prone to rapid

amplification—can propagate within a short period of time. As a result, families with weaker risk-bearing capabilities will suffer greater impacts.

3.3. Analysis of the heterogeneity of the impact of investment behaviors

Residents of different genders, ages and regions will have significant differences in investment behavior under the influence of digital finance. This is the result of personal characteristics, asset status, digital technology mastery level and local financial development.

Butticè et al. discovered that women invest larger amounts of money on digital financial platforms and make more stable investment decisions [6]. The low threshold and anonymity of digital platforms have reduced gender discrimination in traditional finance and made the investment environment for women more open. Young people have a high degree of investment participation, but the amount of investment each time is not large, and the investment style is more radical. In contrast, the middle-aged and elderly groups invest larger amounts per transaction and exhibit stronger risk tolerance, yet their knowledge of digital finance is significantly lacking. According to Pak et al., people aged 50 to 59 scored significantly lower on the digital financial literacy test than those aged 25 to 29, but their actual investment scale and willingness to take risks were higher [3]. Looking at the regional differences, Lu et al.'s research points out that the economic and digital infrastructure conditions of Sima region are relatively good, and residents mainly rely on their own digital capabilities and local infrastructure to make investment decisions [9]. East Malaysia is limited by geographical conditions, and residents pay more attention to interpersonal trust and the service quality of financial institutions when investing.

4. Optimizing digital finance and the countermeasures for guiding residents to make rational consumption and investment decisions

Digital finance brings benefits in driving consumption growth and enriching investment channels, yet it has also led to many irrational consumption behaviors, investment fraud incidents, and rights infringement issues—owing to the rapid spread of risks, the lack of effective behavioral norms, and uneven service coverage. To fully realize the inclusive benefits of digital finance, comprehensive measures should be taken from three aspects: regulatory constraints, improvement of literacy, and service adaptation.

4.1. Improving the digital financial regulatory system and strengthening risk prevention and control

To prevent risks in digital finance, the top priority is to improve the regulatory system. Butt et al. argued that digital finance regulations remain insufficiently clear, and ethical issues such as cybersecurity and data privacy persist [1]. The resulting regulatory gap may facilitate irregular lending, fake financial products, and data breaches.

When establishing the regulatory system, it is necessary to clearly define the division of responsibilities and strengthen departmental collaboration. The operational boundaries of various platforms should be clearly delineated, and close attention should be paid to areas such as digital payment, online credit, and internet wealth management. According to Favourate Y. Mpofu, protecting residents' assets requires establishing an information disclosure framework that mandates platforms to clearly present fee rates, risk levels, and disclaimers, while also adopting regulatory technology to strengthen risk identification and control, monitor anomalies, and streamline

complaint handling, dispute mediation, and loss recovery processes [2]. Li also emphasized that in the case of digital finance serving the basic energy consumption needs of rural households, if there is a lack of effective supervision, it may lead to farmers incurring unreasonable debts or facing safety hazards due to the non-standard nature of the products [10].

4.2. Enhancing residents' digital financial literacy and guiding rational consumption and investment

Enhancing residents' digital financial literacy is a long-term approach that can guide rational consumption and regulate investment behaviors. Pak et al. have demonstrated that digital financial literacy directly influences whether and how people use digital financial services; a lack of literacy will increase the risks of impulsive consumption, blind investment, and being victimized by fraud [3]. Abdallah et al. also pointed out that digital financial literacy is a crucial factor determining whether residents can participate in digital financial services, and it directly affects whether their consumption and investment decisions are reasonable and how strong their ability to resist risks is [7].

Different groups have significant differences in their cognitive foundation, digital literacy, and risk exposure levels. Therefore, stratified and categorized financial education is necessary. For the middle-aged and elderly group, the key points should be on fraud prevention knowledge and safe operation; for the young group, it is necessary to enhance their awareness of rational consumption and moderate borrowing; for rural and low-income groups, it is necessary to popularize basic payment tools, credit products and financial management knowledge. Through community publicity, platform pop-ups, and short-video education, these methods can help residents develop the behavioral norms of budgeting and prudent investment.

4.3. Optimizing digital financial products and services to meet the differentiated needs of residents

The digital financial products and services should be tailored to the actual needs of different populations and regions, so as to expand the coverage. Lei Du and Min Lv found that digital finance has been quite beneficial for rural families in terms of consumption and investment [4]. The product design should fully take into account the unstable income characteristics of rural residents and be in line with their usual usage habits. Yu Tianqi also notes that in less developed regions, the role of digital finance will be more prominent [5]. It is necessary to expand the service scope and simplify the operation procedures. Irabi'ah Al Adawiyah et al. pointed out that the willingness to use digital finance mainly depends on the ease of operation [8].

How to operate, financial institutions have to optimize products according to the needs of different groups. For the elderly and those unfamiliar with digital operations, the interface can be simplified and aging friendly designs such as voice navigation can be added to make it easier for them to get started. For young people, they should reasonably control the credit line, remind more risks and curb excessive consumption. And for rural and remote areas should first improve network signals and build service points online and offline. This differentiated and humanized service can make more people enjoy the convenience of digital finance, but also ensure security, and really meet everyone's needs.

5. Conclusion

This article systematically examines the dual impacts of digital finance on residents' consumption and investment behaviors. First, it clarifies that digital finance enhances consumption convenience, reduces transaction costs, optimizes the consumption structure, and unlocks consumption potential, thereby positively stimulating residents' consumption. However, it also points out that digital finance may lead to various problems, including irrational consumption, security risks, and a widening consumption gap. In terms of investment, digital finance has lowered the entry barriers and expanded the variety of products. However, it has also exacerbated the issue of information asymmetry and fraud risks, thus easily triggering irrational behaviors such as herd investment. This article also demonstrates that its various effects exhibit significant heterogeneity across various dimensions such as region, urban-rural setting, age, and gender. The response characteristics of investors in the western region, rural families, young groups, and women are all different. Therefore, to ensure the healthy development of digital finance, efforts should be made in three aspects: improving the regulatory system, enhancing residents' digital finance literacy, and optimizing the adaptability of products and services. Only in this way can risks be effectively prevented, rights protected, and consumption and investment rendered more rational.

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