

P2P Lending and Mobile Payments: Disrupting Traditional Banking Systems and Expanding Financial Inclusion

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Abstract. Technological development in the field of finance (FinTech) has sprouted and scaled up rapidly, disrupting the traditional banking system. The rise of new platforms allowing P2P lending and mobile payments has changed the way where and how people receive financial services by replacing professionally-managed financial intermediaries aka banks. This paper explores how P2P lending has enabled decentralised financing by providing flexible loans to borrowers, higher returns to lenders, and alternative credit-scoring methods to assess borrowers' credibility. The subsequent development and recent widespread use of mobile payments have brought about transformative changes in finance where users can make payments without using physical cash or relying on banking infrastructure altogether. The combination of these technologies is providing inclusive finance by allowing unbanked and underbanked populations access to necessary financial services. This paper further delves into the challenges emerging from both these innovations, such as assessment of risks, security issues and regulatory uncertainty. The paper concludes by emphasising that new technology-based lending and payments have the potential to foster inclusive economic growth in rural, remote and low-income regions of the world, and by highlighting the challenges that needs to be tackled for FinTech to succeed.

Keywords: P2P lending, mobile payments, financial inclusion, FinTech, decentralized finance

1. Introduction

The rise of financial technology (FinTech) has drastically reshaped how people and businesses interact with financial systems. For many years, banks have served as the central nodes of the financial industry, acting as a trusted intermediary between savers and borrowers, handling payments, and managing risk. Recently, however, FinTech innovations, such as peer-to-peer (P2P) lending and mobile payments, have started to challenge these traditional systems, disrupting the way banks interact with their customers. By introducing increased directness, decentralisation and democratisation in the provision and use of financial services, P2P lending and mobile payments have the potential to lower participation barriers and thereby reinvigorate the financial system. In this essay, I will critically examine the underlying trends in FinTech, exploring the ways in which P2P lending and mobile payments enhance financial inclusion, particularly in markets where formal banking services are either untried or unavailable. In the past decade, a surge of digital solutions has empowered large populations who had previously been cut off from the global economy, triggering a wave of financial innovation. Advocates of this shift argue that digital transformations are ushering in a new era of financial inclusivity, empowerment and opportunity. The rapid spread of mobile phones and mobile internet services has been instrumental in enabling this transformational shift. P2P lending and mobile payments form just two examples of the widespread disruption FinTech is causing across sectors. Despite their extensive social benefits, these technologies also raise concerns regarding risk management, security and regulatory oversight [1]. Moving forward, the challenge lies in developing appropriate regulatory frameworks to mediate the possible tensions between innovation and security. This paper will discuss how P2P lending and mobile payments are disrupting traditional banking models, increasing financial inclusion, and how these innovations seek to overcome the challenges they pose.

2. Disrupting Traditional Banking Systems

2.1. P2P Lending as A Decentralized Financing Model

P2P lending is a FinTech innovation that has disrupted traditional banking models by cutting out the middleman. It is a peer-to-peer network through which borrowers get in direct contact with lenders, bypassing financial intermediaries such as banks. It has revolutionised lending in many ways. Initially an online platform, P2P matches potential borrowers and lenders, facilitating the direct exchange of capital between them. This means borrowers don't have to go through the time-consuming process of having their applications assessed by banks and approved by their credit committees. P2P lending, which operates through an online platform, has democratised access to credit. It is particularly beneficial for people who do not have access to formal banking services. Borrowers also benefit from lower interest on their loans, while lenders receive higher returns than they would through traditional bank loans [2]. This has had a disruptive impact on the traditional banking system, challenging the gatekeeping role of banks over capital, and changing the competitive landscape of financial services. The unconventional approach to lending has also paved the way for new risk management mechanisms. P2P lending relies on alternative credit assessment methodologies that go beyond traditional banking practices. These may include social data or digital footprints, giving rise to more flexible lending solutions for borrowers and lenders alike. The data in Table 1 is sourced from the study of the lending activities of different P2P lending platforms over the period 2022-23 and the various types of credit assessment used for different categories of borrowers. It highlights how P2P platforms empower borrowers by providing the flexibility of finance on their terms while also offering higher returns and new risk-management strategies for lenders.

Table 1. P2P Lending Experiment Case Study

Borrower Category	Loan Amount Requested (\$)	Interest (%)	Rate	Approval (Days)	Time	Loan Approval	Credit Method	Assessment
Low Score	5000	8.5		2		Yes	Social Data	
No History	3000	10		1		Yes	Digital Footprint	
High Score	10000	6		3		Yes	Traditional Credit	
Small Business	15000	7.5		4		No	Alternative Metrics	

2.2. Mobile Payments: Shifting from Cash to Digital Transactions

Mobile payments constitute another significant disruptor – for the traditional banking system. They are reshaping how people and businesses make payments and, in emerging markets, are leapfrogging the need for physical cash and bank-mediated transfers. Driven by the proliferation of smartphones and mobile internet, mobile payment systems have enabled users to make instant and secure payments via their mobile devices. From the 15 million users of Alipay in China in 2010 to the 35 million users of the Kenyan mobile payment app M-Pesa and the 277 million users of the US-based PayPal, the adoption of mobile payment systems has grown significantly and reached a critical mass. Mobile payments have empowered millions of the world's unbanked people to engage in the digital economy. For users, they provide a quick and convenient way to transact, combined with lower fees and more secure than traditional payment systems [3]. For businesses, and especially small and medium enterprises (SMEs), mobile payments have freed them from the need for point-of-sale (PoS) systems, and they allow SMEs to make payments faster and more efficiently. The fierce competition among mobile phone providers and internet service providers have further motivated them to innovate their payment systems and provide seamless payment experiences in order to compete with the agile FinTech solutions.

2.3. Integration of P2P Lending and Mobile Payments into Financial Ecosystems

P2P lending and mobile payments are rapidly becoming embedded into the wider financial ecosystem, with profound consequences for how financial services are delivered and consumed. As more and more individuals and businesses turn to P2P lending platforms and mobile payments, traditional banks are struggling to maintain their position as powerful gatekeepers of the financial industry. P2P lending platforms such as LendingClub and Funding Circle have already facilitated \$100 billion and \$11 billion in loans, respectively. Meanwhile, mobile payments account for trillions of dollars in annual transactions, with companies such as PayPal processing \$13 billion in volume in the third quarter of 2016 [4]. These innovations not only disrupt traditional banking models but also expand and diversify the financial services ecosystem by allowing more non-bank players to participate. Moreover, the combination of P2P lending and mobile payments can facilitate the development of a more interconnected, digital-first financial infrastructure that places a premium on user accessibility, cost efficiency and transactional speed. Faced with this reality, legacy

banks have had to respond by adapting their business models, often partnering with or acquiring FinTech companies to remain relevant in this new landscape.

3. Expanding Financial Inclusion

3.1. Bridging the Gap for the Unbanked and Underbanked

Perhaps most importantly, P2P lending and mobile payments have helped to reduce the financial inclusion gap between the unbanked and underbanked populations. In many developing countries, large numbers of the population have limited or no access to basic banking services such as accounts, credit or savings. P2P lending helps these individuals to access credit, often without the barriers that traditional banks impose, such as extensive documentation and credit history requirements. For instance, microloans can be paid via P2P platforms to small-scale entrepreneurs in rural areas to help them grow their businesses. Similarly, mobile payment systems help millions of unbanked individuals to enter the formal financial system by storing, transferring and receiving money using just a mobile phone [5]. By leapfrogging the traditional banking infrastructure, these tools empower new groups of people, including women and low-income households, to join the digital economy and improve their livelihoods.

3.2. Enhancing Access to Financial Services in Rural Areas

Mobile payments and P2P lending have democratised financial services in rural areas where brick-and-mortar banks have never existed. The operational cost of traditional banking is too high to serve these areas profitably. But the scalability of mobile payment platforms and the low cost of operating P2P lending services make it financially viable to serve low-profit areas. For example, in the 1980s, farmers in remote areas had to travel long distances to sell their produce in urban markets, and they had to carry large sums of cash with them. The introduction of mobile payments has enabled farmers to sell their produce in urban markets without having to travel to a bank, and mobile wallets have helped farmers have easy access to their money. P2P lending has also given rural entrepreneurs an opportunity to borrow loans for agricultural equipment or small business investments without a lot of paperwork. Disregarding geographical barriers has helped rural populations forge their own economic opportunities [6]. The data provided in Table 2 comes from field studies conducted between 2022 and 2023 in rural regions. It reveals that mobile payments have made rural populations able to carry out economic activities like selling produce and goods in urban markets without carrying physical cash.

Table 2. Access to Financial Services in Rural Areas

Region	Service Provided	Number of Users	Average Transaction Amount (\$)	Increase in Income (%)	Loan Approval Rate (%)	Purpose of Loan
Gansu Province, China	Mobile Payments	1500	300	15	N/A	N/A
Kisumu County, Kenya	P2P Lending	1200	250	12	85	Agricultural Equipment
Madhya Pradesh, India	Mobile Payments	2000	350	18	N/A	N/A
Chiapas, Mexico	P2P Lending	800	220	10	78	Small Business Investment

3.3. The Role of Regulatory Frameworks in Supporting Financial Inclusion

While P2P lending and mobile payments can bring significant benefits for financial inclusion, their success in expanding financial services access also depends on supportive regulatory frameworks. Governments and financial regulators set the scene for FinTech innovations, shaping the balance between financial stability, consumer protection and innovation. In many countries, we have seen regulators adopt a ‘sandbox’ approach, where FinTech companies can test products in a live environment before these products are rolled out to a larger base of users, underpinned by a clear and consistent legal framework [7]. This approach has been supportive of P2P lending and mobile payments, and has helped to foster growth of these sectors by providing some much-needed predictability of the legal environment and by minimising uncertainty for both providers and users. This approach can help to build trust among users, which is key to adoption. Nevertheless, overly restrictive regulation can stifle innovation and limit the potential for these technologies to reach underserved populations. So, a balanced regulatory approach is key to unlocking the financial inclusion benefits of P2P lending and mobile payments.

4. Challenges Facing P2P Lending and Mobile Payments

4.1. Managing Risk in P2P Lending Platforms

Managing the inherent risk of lending to people with no credit history or contractual obligations is probably the biggest challenge P2P lending platforms have faced. While P2P lending creates a much more inclusive credit market, it can also expose lenders to higher risks, especially when credit scoring is not based on traditional and tested methods. Many P2P lending platforms have developed alternative credit scoring methods that rely on consumer social media data, transaction and payment histories, and other non-traditional indicators of creditworthiness. However, these methods are still relatively untested and can be unreliable. Moreover, the weak regulation of the industry can facilitate fraudulent activities or create default risks, which undermine the trust of investors in P2P lending platforms. Thus, many of them have developed risk mitigation strategies such as loan diversification, the use of third-party guarantees, and the implementation of machine learning algorithms to enhance risk assessment. Figure 1 below illustrates the reliability of different credit scoring methods used by P2P lending platforms [8]. While traditional credit scoring appears more reliable, newer methods provide more inclusivity but also create higher risks.

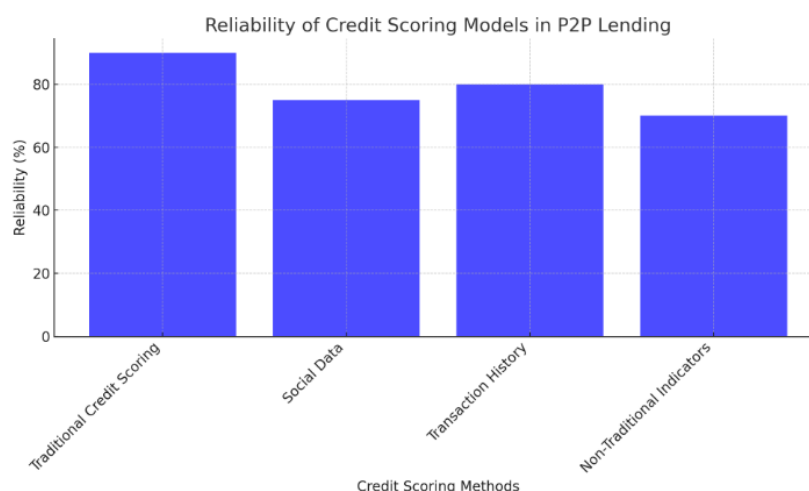


Figure 1. Reliability of Credit Scoring Models in P2P Lending

4.2. Security Concerns in Mobile Payment Systems

With the proliferation of mobile payments across markets of varying cybersecurity infrastructure, and with mobile payment platforms storing personally identifiable information and financial information on their users, these platforms have become primary targets of cybercriminals who are up for the challenge. Hacking into the systems opens a multitude of risks for users such as data breaches, identity theft and unauthorised transactions. Mobile payment providers have taken a number of steps to secure their systems [9]. This includes encryption, two-factor authentication and biometric verifications of users. Nonetheless, as technological advancement often outpaces the development of strong security mechanisms, it creates gaps that new and emerging threats can exploit. The security of mobile payment platforms is critical to their continuation and adoption in markets where trust in digital financial services is still fragile.

4.3. Regulatory and Compliance Challenges

Like other disruptive technologies, regulatory and compliance challenges loom large for P2P lending and mobile payments. Because these platforms are peer-to-peer and decentralised, it is difficult to regulate and ensure compliance with existing laws. This is particularly so for P2P lending platforms that operate across borders, and the issue of regulatory arbitrage is always a challenge for regulators because the platform allows loans to be made without any physical presence in a particular jurisdiction. If a consumer in Singapore, for example, connects with a lender in the US, then the P2P entity becomes an intermediary to facilitate the loan and may be required to comply with regulatory requirements of both jurisdictions (including different interest rate caps, anti-money laundering and consumer protection rules). The same applies to mobile payment platforms that transact cross-border payments; regulatory frameworks are fragmented, and there is no single framework that applies consistently across jurisdictions. Many governments and regulatory bodies are now aware that they need to come up with new frameworks to keep up with FinTech innovations since existing frameworks and laws are not designed to accommodate the unique features of FinTech innovations [10].

5. Conclusion

P2P lending and mobile payments are two of the most innovative developments in the financial sector to have the power to transform the way finance is done by reducing the need for traditional financial intermediaries and significantly expanding financial inclusion. P2P lending bypasses the bank and directly connects the borrower with the lender. It allows the provision of credit to individuals and small businesses in a way that is often cheaper and with more flexible terms than a bank credit. Similarly, mobile payments have ignited the digital economy, bringing millions of unbanked and underbanked people to the forefront of tech-based transactions. The data and statistics presented in this paper show the transformative role of these technologies in rural areas, as well as in unbanked and underserved populations. Nevertheless, despite their many benefits, P2P lending and mobile payments also bring considerable risks. These include how to handle risk management and security, as well as the vital issue of regulatory oversight. Governments and financial regulators will need to work alongside FinTech companies to create balanced frameworks that support consumer protection while promoting responsible innovation. As FinTech continues to evolve, P2P lending and mobile payments will be a defining feature of the future of global finance, delivering more inclusive, efficient and accessible financial services to populations across the world.

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