

Porter Diamond Model and Internationalization of Fintechs

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Abstract

This paper relies on Porter Diamond model to explain how and why specific digital financial inclusion is the main driver for the internationalization of Fintechs. Porter's Diamond model can be used to weigh the importance of using specific digital financial inclusion as key factors for the internationalization of Fintechs. Second, analyze how the competition of using specific digital financial inclusion is a secondary driver for Fintechs entering the global market. Fintechs keep disrupting the incumbent financial system and stability worldwide. Moreover, culture, population, new technology, micro and macro conditions in new markets, data protection, transparency, poverty, regulations, and policies could bring Fintechs and their digital financial inclusion to the rest of the world. Such rapid shift may threaten financial stability through excessive demands on specific digital financial inclusion than others locally and globally, without thoroughly examining the accumulated risks with the absence of particular regulation policies such as data and consumer protection, personal identifiable information (PII), cyber hygiene, and technology controls locally and cross-country resilience, collaboration, information sharing, cybercrimes, money laundry, consumer overleveraging, among others on internationalization Fintechs and their impact on financial stability.

Moreover, Fintechs compete with traditional banks and other financial institutions by providing digital banking services, especially in the payments, transfers, loans, and lending sectors. However, due to the lack of transparency data gathering, supervisions and regulations of Fintechs, policies, privacy, cybercrimes, the impact of Fintechs on the financial market and economic stability are yet to be thoroughly examined and evaluated. A literature review on Fintechs and their digital financial inclusion are needed to explore Fintechs and the importance of some selected studies on Fintechs.

Keywords: fintechs; banks; digital banking services; regulation; internationalization; payments label

JEL Classification: G21, G23, G15, G4, F61, F62, F65, G2, L10, L2, O11, O12, Z33

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Introduction

Fintechs not fully integrated into the world bank's operations, international and local policies dialogues, nor establish tangible Fintechs regulations and supervisions requirements. Recently, Fintechs have become a part of the World Bank's broader agenda on disruptive technologies and the digital economy. The World Bank and central banks conduct international and regional studies focusing on Fintechs and regulating Fintechs, moreover, focusing on supporting Fintechs locally and globally through technical assistance and lending projects. The World Bank is also increasingly incorporating Fintechs' developments in FSAPs (e.g., India, Indonesia, and Thailand). Moreover, BIS launched its FinTech Hub and the European Central Bank regularly, publishing articles and studying the impact of Fintechs on the future of the banking system and financial stability.

Fintechs reshape and refine the quality of the financial system and economy by providing digital financial inclusion to fill the gaps left by traditional financial institutions (e.g., banks). At a micro level, the microeconomic conditions allow Fintechs to reach higher productivity growth levels in some countries than others. The primary reason for the internationalization of Fintechs was the heavy shadows of financial crises and extravagant measures to bail out and support the troubled bank. These include extravagant financial stability packages; emergency liquidity assistances; recapitalization of the capital for the troubled banks;

government capital injections; liability guarantees; exchanges rates fixes; international monetary fund programs; macroeconomic adjustment programs; strength supervision channels; government guarantees; interest-free rates; foreign currency liquidity to maintain the exchange rates, external liquidity controls; establishment of minimum requirement or new currency regulation for foreign currency rates; a structure or restructure reforms for external assistances; foreign exchange intervention and more (N. Naser 2019). Fintechs encourage a competitive environment by providing lending platforms via peer-to-peer lending, online banks, internet banks, and different payment platforms with varying business models and annual investment growth. The dynamics of Fintechs shift directly towards providing banking services, especially in the payment s and lending sectors. Secondly, the declining number and downsizing of traditional banks can be related to the regulatory burden, micro and macro conditions locally and internationally, the cost of keeping up with re-regulatory compliance and capital requirements, competition against Fintechs and non-financial companies that provide specific digital banking services in some areas to meet customers’ needs and demands.

Moreover, after the financial crisis, traditional banks faced legal and regulatory burdens by raising the costs and limiting the scope of products that traditional banks provide, reducing lending, etc. Such burden does not apply to shadow banks/open banks/ Fintechs and other financial and non-financial companies that provide similar banking services while gaining market share and establishing a solid foundation in the financial market. The cost of bailing out the troubled banks had a significant impact on the economy by searching for a new resolution for future financial crises and designing fiscal policies and regulations (Drechsler et al., 2014). In addition to that, Fintechs rely on big data rather than long-term relationships, size, ownership, and legacy like banks. The access to digital financial inclusion is through online platforms, directly matching the lenders and borrowers or investors and investment opportunities. Figure 1 illustrates the declining number of banks operating in Europe and represents the differences between the banks operating in Europe between 2007 and 2019. The declining number of banks operating in Europe was visible in Austria, Germany, Spain, Hungary, and Poland.

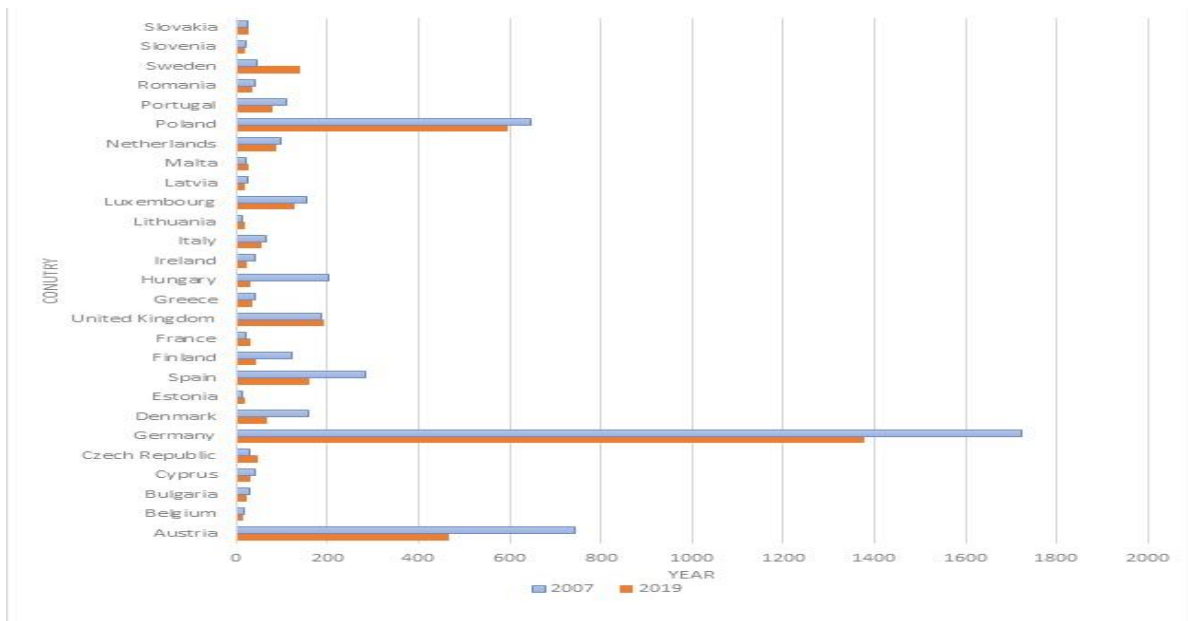


Figure 1. Comparison of the number of banks in Europe between 2007 & 2019.

Source European central bank/ Statical Data Warehouse <https://sdw.ecb.europa.eu/browse.do?node=9689367>

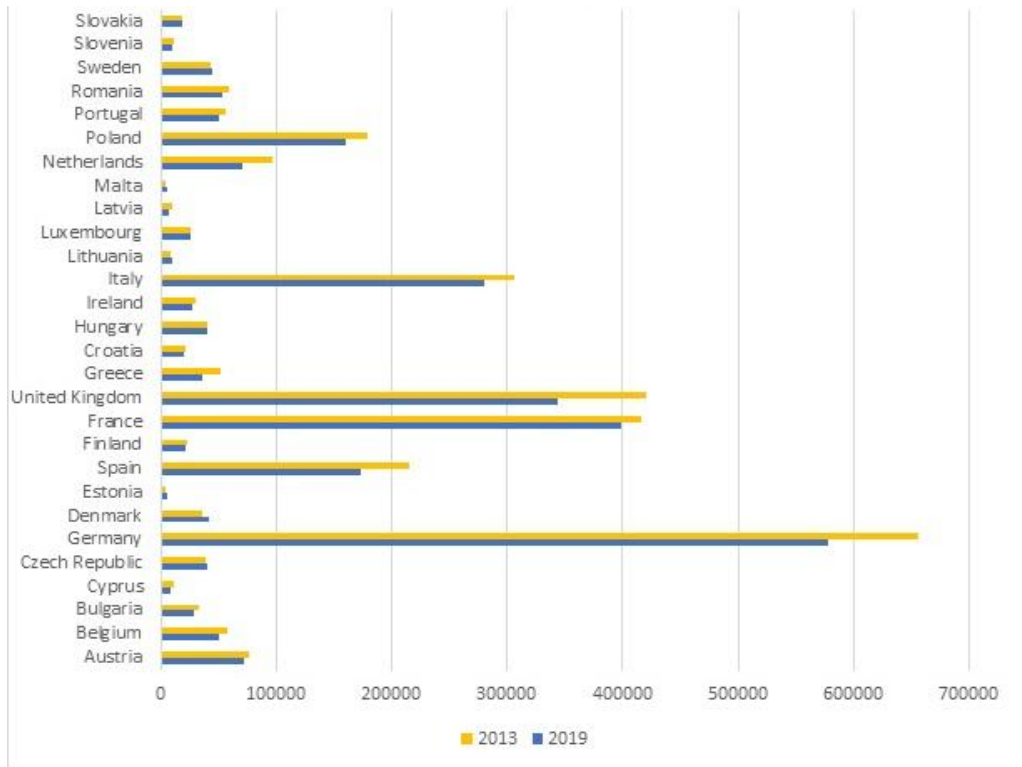


Figure 2. Declining the number of employees in Europe.

Source: [European central bank/ Statical Data Warehouse](https://www.ecb.europa.eu/press/pr/date/2019/html/ecb.pr190101.en.html)

The paper hypothesis

The main reason for the internationalization of Fintechs relies on the excessive demands on specific digital financial inclusion to meet customers’ needs in some areas than others.

While the answer of this hypothesis relies on using the Porter Diamond model to explain the main factors behind the internationalization of Fintechs, undoubtedly, Fintechs have become more competitive in the financial markets by targeting customers’ needs for specific digital financial inclusion than others without going through the regulations burden of banks regulations (Legacy Burden) and standards. Therefore, after financial crises, the current market environment locally and worldwide, regulatory burden, and advanced competition in financial technology offer an excellent opportunity for Fintechs to bloom.

2014—Q4 2019

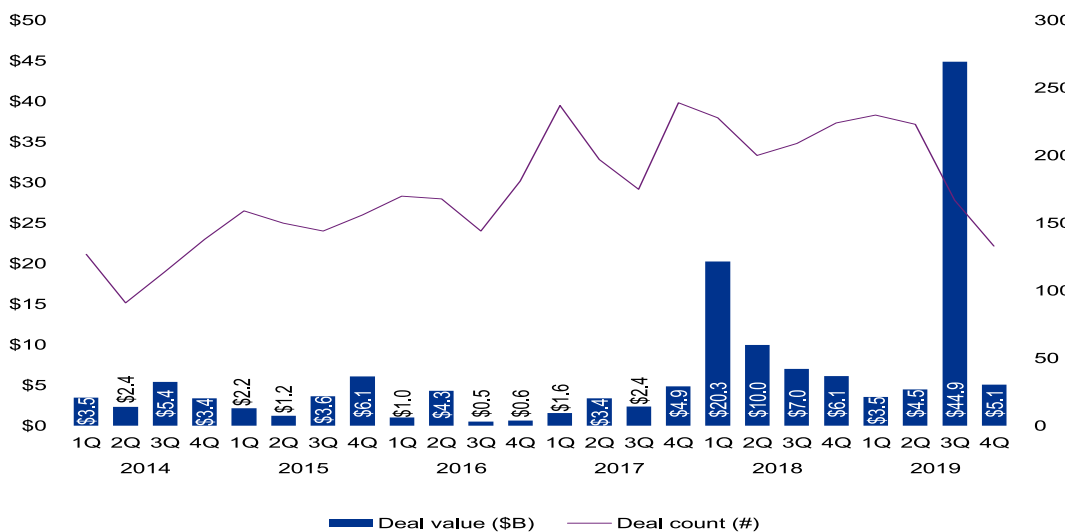


Figure 3. Total investment activity (VC, PE and M&A) in Fintech in Europe

Source: Pulse of Fintech 2019, Global Analysis of Investment in Fintech, KPMG International (data provided by PitchBook), as of 31 December, 2019.

Fintechs' venture capitalists¹ dramatically increased during the third quarter of 2019. The increasing capital requirements associated with this shift, combined with the capital needed to increase digital financial inclusion geographically.

Defining the Fintechs

Term Fintech is defined as a company that provides digital financial inclusion while disrupting financial markets and stability². A broader definition of Fintech comes to disrupting startups (Chishti & Barberis, 2016). Others define Fintech as a financial inclusion provider using innovative technologies to satisfy future requirements: high efficiency, affordable cost, high-tech business process, rapidity, flexibility, and innovation (Dapp et al., 2014). However, the term "Fintech" is still ambiguous, and there is room for further discussion. According to Dorfleitner, Gregor et al. (2017), the term "Fintech" is impossible to define because Fintechs offer diverse digital financial inclusion and are subject to differing kinds of legal and regulatory obligations. Therefore, Fintechs open the door for researchers to unveil new possibilities to study all the aspects of Fintech. Lee and Teo (2015) stated that the most five drivers for boosting the success of Fintechs are low margins, light assets, scalability, innovation, and easy compliance.

The topology of Fintechs

Payment systems:

As far as innovative solutions in the area of electronic payments can be summarized as follows:

- Contactless mobile payments via HCE technology (Host Card Emulation) – the payment card data is recorded on an external server using cloud computing.
- Mobile payments with one-time codes are generated in the application installed on smartphones.
- Online payments systems (e.g., card payments or mobile payments systems)
- Express pay-by-link payments (online purchasing by linking customers to their banks to approve the transactions and automatically completed transfer form to the indicated beneficiary)
- Electronic wallets (e.g., e-wallets, digital wallets, and e-purses) enable making quick online payments. Electronic wallets are a mutual transfer of funds between their users.
- Biometric technologies for payments authentication (e.g., fingerprint authentication with the use of a fingerprints reader)
- Tokenization replaces the payment card number with a unique string of digits (tokens) to authorize the payments without disclosing card data.

Financial intermediation:

- Lending tech (e.g., peer-to-peer lending platforms and assess creditworthiness)
- Personal finance and wealth management manage private bills, accounts and/or credit, personal assets, and investments.
- Equity crowdfunding platforms allow individuals to provide monetary contributions to support specific projects or companies in exchange for equity.
- Institutional and capital markets tech provide tools to financial institutions or other institutional investors.

Ancillary services:

- InsurTech creates new underwriting, claims, distribution and brokerage platforms, or software-as-a-service to help insurers with IT issues.
- RegTech is an application of digital technology to regulatory compliance.

Currency functions (blockchain/bitcoin).

The Porter Diamond Model and drivers in terms of Fintechs

Fintechs gain a competitive advantage in the finance world by providing digital financial inclusion to meet customers' demands and fill the gaps left by traditional financial inclusions. Porter's model evaluates why particular countries have a competitive advantage and skilled drivers of using digital financial inclusion that allows Fintechs

¹ <https://home.kpmg/xx/en/home/campaigns/2020/02/pulse-of-fintech-h2-19-europe.html>

² [2017081pap.pdf \(federalreserve.gov\)](https://www.federalreserve.gov/2017081pap.pdf)

to thrive internationally. The Porter diamond is built on six determinants: factor conditions, demand conditions, related and supporting industries, firm strategy, structure, and rivalry. The effect mutually intertwines among the said determinants, and any change in one affects all other determinants (Porter, 1990). However, the success factors for internationalization Fintechs can be related to the Fintechs quickly gain customers trust, affordable and transparency of products/services, convenient process, digitalized business models (Berger, R., 2016), and other micro and macro conditions that affect the internationalization of Fintechs and can, directly and indirectly, influence the competitiveness of Fintechs (Porter, 1990; Riasi, A., 2015). Next, this paper will modernize the Porter Diamond model in the following aspects to fit Fintechs.

The drivers of Competitive Landscape

➤ **Internal and external competitive**

1. Number of competitors in the markets (e.g., Fintechs and non-financial companies that provides banking services (NBFCs) vs traditional financial institutions such as banks)
2. Diversity of competitors
3. Industry concentration
4. Industry growth and competitive landscape
5. Macro conditions in targeting areas
6. Micro conditions in targeting areas
7. Integrate into new targeting areas (For example, customers' needs in the Asian market differ from ones in the Eurosystem market)
8. Quality, efficiency, security, and simplicity of digital financial inclusion
9. There are challenges to existing in new targeting areas.
10. There are challenges to providing digital financial Inclusion in targeting areas.

➤ **Threaten of new digital financial inclusion.**

1. There are challenges of adopting new digital financial inclusion locally and internationally without regulation and policies.
2. Accessibility to enter targeting markets locally and globally
3. Efficiency, simplicity, security, experience and regulation and supervisions policies locally and globally
4. Switching costs
5. The advantage of demands on specific digital financial inclusion in the targeting markets locally and globally
6. Micro and Marco economic conditions and scale of economics locally and globally

➤ **Bargaining Power of Providers**

1. Number of the Fintechs in the targeting markets locally and globally
2. The performance of the Fintechs in the targeting market locally and globally
3. The quality and quantity of digital financial inclusion and their advantages to compete in the targeting markets locally and internationally.
4. Classification of digital financial inclusion
5. Ability to substitute and adjust new financial inclusion reflects the customers' needs in targeting markets locally and globally.
6. Access to new markets locally and internationally.
7. The power of attracting new customers in new targeting areas locally and internationally
8. The quality, time management, efficiency, security, and simplicity of digital financial inclusion in targeting markets locally and internationally

➤ **Threaten of Substitute services**

1. Outdating and unaffordable services
2. There is a complexity of entering a new target market due to government control over foreign businesses.

3. Changing the micro and macro conditions in new target markets locally and internationally
4. The power of attracting new customers in new targeting areas locally and globally
5. Switching costs locally and globally
6. Classification of digital financial inclusion

Competent Landscape

➤ **The competent of new applications of Fintechs in new markets**

1. Payment Services
2. Lending Services
3. Banktech
4. E-wallet and wealthtech
5. Crowdfunding and alternative finance
6. Wealth Management

Table 1. Explanation of drivers of the Porter Diamond model for the globalization of Fintechs markets (Based on literature and reports that examine Fintechs)

Drivers of internationalization Fintechs.	Explanation
<p>Factor Advantages</p> <ul style="list-style-type: none"> • Regulations 	<p>Regulatory, policymakers and supervisory institutions trying to keep up with the rapid expansion of Fintechs. European authorities involved in setting up regulatory policies and supervising the impact of Fintechs on finance instability, at the same time, proactively are encouraging Fintechs. European Union introduced two critical regulations in the General Data Privacy Regulation (GDPR) and the Payments Services Directive 2 (PSD2). Fintech financial inclusion has raised concerns about consumer and investment protection and financial stability and integrity concerns. For instance, some regulators use fintech units and regulatory such as sandboxes. Simultaneously, some regulators tested RegTech/SupTech applications (e.g., Malaysia and the Philippines). Moreover, some countries (e.g., Indonesia, Malaysia, the Philippines, Singapore, and Thailand) issued digital lending regulations regulating equity crowdfunding in Malaysia, Singapore, and Thailand.</p> <p>India supports the digitization of payments, amending KYC requirements. Monitoring the Fintechs is left to existing agencies. Financial supervisory authorities have an active, multidimensional role in Fintechs. Law enforcement agencies collaborate with supervisory authorities to regulate and control financial crimes and risks associated with Fintechs. However, Fintechs benefit from Infrastructure gaps and regulatory barriers in financial systems. Fintechs still apply to the traditional regulatory perimeter. However, the gaps are still not formally and fully addressed. Many countries called for international cooperation to control Fintechs as disruptive to financial stability, development legal regulatory and supervisory frameworks, payments and securities settlement systems and cross-border payments. Therefore, managing capital flows and enforcing macroprudential measures will be challenging, such as monitoring the Peer-to-peer transactions. Moreover, cross-border capital flows could raise regulatory arbitrage and amplify shocks' impact, such as those arising from liquidity, spillovers, and contagion risks.</p>
<p>Ownership Advantages</p> <ul style="list-style-type: none"> • Market and economies scale of Fintechs. • Economies of capital 	<p>It is not easy to measure the economies scale of the Fintechs market because it is unevenly growing worldwide. Significant changes to the current payments and settlements arrangements could impact clients, participants, and needs. The thrive of Fintechs and building new infrastructures are subject to stakeholder consultations and policies, Evaluating target markets, online transaction platforms and micro and macro conditions. Fintechs are accelerating unevenly by prompting specific digital financial inclusion in some areas than others. Fintechs challenge other incumbents' business models by forcing financial institutions to digitalize their financial inclusion. As a result, it changes the financial system's institutional structures in allocating staff resources, downsizing, digitalization, merging, and bankruptcy. The United States has one-half of global venture capital fund-raising. At the same time, Asia and Europe split the rest of the world with a total of US\$85 billion for financing Fintechs.</p> <p>Recently, Fintechs competed rapidly in capital markets and raised several policy challenges. By providing new financial inclusion and changing capital markets development as alternative financing applications (e.g., crowdfunding and ICOs³). Secondly, product distribution platforms and funds facilitate selection from a broader range of third-party products, potentially impacting capital market development. Developed economies possess the most platforms for distributing funds while other countries rapidly make inroads into major emerging markets (e.g., India, Korea, and Mexico).</p>

³ ICO Initial Coin Offering defined as an unregulated raised funds for a new cryptocurrency venture to bypass the rigorous and regulated capital-raising process required by venture capitalists or banks for new startups (<https://fintechweekly.com/ico-definition>)

Table 1 (cont.). Explanation of drivers of the Porter Diamond model for the globalization of Fintechs markets (Based on literature and reports that examine Fintechs)

Drivers of internationalization Fintechs.	Explanation
Demand Conditions <ul style="list-style-type: none"> • Income • Growth rate 	<p>According to KPMG's report, the total investment of European Fintechs (including private equity and venture capital) was US\$34.2 billion across 536 deals. The United Kingdom has over US\$16 billion in total fintech investment. The British venture capital invested in 2018 totalled US\$1.73 billion across 261 deals, making it the third-largest globally in terms of fintech investments, after the United States and China. Switzerland' Fintechs market growth was over 62 per cent in 2018.</p> <p>Despite the critical regional and national differences, Fintechs embraced by countries and worldwide to boost economic growth. For example, Singapore and the United Kingdom allow a partnership between innovators/Fintechs to accelerate growth, innovate on shared technologies. In Asia, Fintechs' digital financial inclusion goes beyond payments to match consumer needs in lending, insurance, and others by improving the level of development, regulatory position, and existing financial and technological infrastructure. In addition, Fintechs enable nonbanks to provide payment services, often bypassing regulated financial institutions. Banks still do hold a dominant position in the settlement sector as only minor impacts on monetary policy transmission happens in bank lending channel.</p>
<ul style="list-style-type: none"> • Location Advantages • Location 	<p>The rapid expansion of China's fintech industry is due to advanced infrastructure and soaring demand for digital financial inclusion to become fintech hubs (e.g., Hong Kong, Singapore, Cambodia, Peru and Tuvalu). Across Africa, the landscape of providing digital financial inclusion has changed dramatically to meet customers' needs. The mobile money accounts per capita and the volume of mobile money transactions are quietly widespread and leading the world in this sector. Access to mobile money accounts has recorded a significant increase in digital financial inclusion, but there is still room for substantial improvement.</p> <p>In ASEAN, e-money provides in all countries (World Bank and ASEAN, 2019). However, Fintechs operate unevenly for the same region. Asian economies have adopted various technologies to meet consumer needs, development, regulatory stance, and existing financial and technological infrastructure. In Asian countries, Fintechs expand beyond payments to include lending, insurance, and investment. For example, leveraging existing social-media platforms, Chinese Fintechs digital inclusion include P2P lending, internet credit, microlending, internet-based banking and insurance, digital wealth management, and credit ratings (IMF, 2019a).</p>
<ul style="list-style-type: none"> • Factor Conditions • Technology 	<p>New financial technology models build on clouds, digital platforms, and distributed ledger technologies (DLT), spanning mobile payments and peer-to-peer (P2P) applications to fill gaps left by traditional banking services. The Bloom in Initial Coin Offerings (ICO) and surging interest in Securities Token Offerings (STOs), based on DLT and asset tokenization, enable new investment products to claim potential earnings streams of new businesses. Borrowing services impact new algorithms, such as smart contracts or AI/ML applied to large volumes of data collected by services providers, especially in payments and e-commerce providers. Credit risk modelling has been improved, which allows lending to new borrowers, including MSMEs. Moreover, digital identification and cyber-security enable new models for managing risk for individuals, financial institutions, and regulators.</p>
<ul style="list-style-type: none"> • Related & Supporting Industries • Infrastructure 	<p>Many countries have adopted digital financial inclusion and infrastructure. For example, transactions instruments such as tokenized securities, blockchain bonds, and crowdfunding go viral. World Bank supports joining Fintechs to achieve universal access to transaction accounts and payments. Fintechs operates in countries that possess such infrastructures, such as China, India, and Brazil. The diverse international approaches can refine Fintechs' developments, efficiency, equity, financial system stability, and privacy. However, it varies according to national priorities; it seems crucial for orderly digital products to clarify various stakeholders' rights and obligations—the effectiveness of transparent data frameworks and cross-border fintech benefits.</p>

Source: based on studies found in literature and financial reports about Fintech.

Fintechs in literature

The disruptive process of Fintechs impact on financial stability still unfolds, and the hidden accumulated risks related to payment security issues, data protection, cybercrimes, and transparency are yet to measure. Moreover, consumer protection and prudential requirements to defend customer funds are still not fully addressed. Even though the financial system could become more diverse and competitive, it may become more concentrated and disruptive to financial stability. Fintechs provide digital banking services and operations, allowing them to attract more new customers worldwide. Fintechs compete with the core of banking services using mobile phones and online banking. Fintechs change the games and make the financial system more diverse, efficient, more competitive with better targeting, faster, and affordable digital financial inclusion to match customers' demands and needs.

Nevertheless, Fintechs draw new risks and greater concentration. The dramatic growth of the German Fintechs Market reached 290% in the financing subsegment and 480% in the asset management segment between 2014 and 2015. Simultaneously, the Fintech industry depends on the future regulatory environment, changing the micro and macro conditions locally and globally. The risks factors of Fintechs' digital financial inclusion may accumulate unnoticed and require further investigations. Therefore, regulatory interventions may be necessary

to prevent potential sources of risks. The giant tech companies increase market concentration by exploiting their network externalities could add more risks. For example, risks could arise from big tech's funding models, often using a mix of internal and external investors to finance loans or repackaging and sell them to third-party investors. Such originate-to-distribute models can lead to information asymmetries, incentive problems, and financial instability such as subprime crises.

In the EU, the Payment Services Directive (PSD2) revision enhances competition by requiring banks to share account information as Fintechs move into the core of banking services business, representing a rivalry to banking sectors, including the credit business. Fintechs' credit represents a tiny fraction of overall credit; however, it also increases rapidly and could dominate market segments. In America, 36% of unsecured personal lending was issued by Fintechs in 2017. Fintechs have a distinct impact in the payments market by operating in non-capital-intensive businesses such as cross-border transfers, micropayments, and card payments. Fintechs threaten to decrease their payment and settlement domain revenues according to 61% of incumbent institutions (European Banking Authority survey, 2018). The majority of incumbent banks said that the payments sector is the most affected by Fintechs competition, eroding fees and commission income. Loans consider as the most successful financial inclusion for Fintechs by matching borrowers and lenders directly. Fintechs provide competitive and competent market lending platforms such as Peer-to-Peer lending, Peer-to-Commercial lending, and others. However, the borrower will often pledge specific assets(collateral) to secure its repayment in the banking sector.

In addition, Fintechs have changed the profile of the lenders' market as crowdfunding has become a source of funds to replace bank lending. Crowdfunding means that private individuals provide financing mostly in small denominations for a specific project. Funding supplied on these sites is usually not expected to be paid back and is less directly comparable to bank loans than marketplace lenders' products (Hill, J., 2018). In a completely different approach from banks, Fintechs provide credit services (Peer-to-peer lenders). Electronic platforms typically match borrowers and investors without balancing sheet risks and generating fee revenue rather than net interest. Fintechs lending platforms are impressively more efficient and target borrowers and lenders efficiently, which pressure incumbent banks. However, till now, lending platforms cannot challenge the role of banks in the economy due to the following:

1. The scale of lending platforms is insignificant to perform liquidity transformation by providing short-term liquidity services for depositors and long-term loans for borrowers.
2. Banks have both insured deposits containing depositor runs and higher capital levels to support lending during downturns. Therefore, lending platforms cannot compete with banks' market position in lending.

Table 2. Studies that examine Fintechs in literature

Research Stream	Authors	Finding
	Frost, J. (2020).	It gives evidence on how adopting Fintechs worldwide is unevenly distributed. Fintechs have a solid foundation in mobile payments. Fintechs increase cross-border competition in financial services. There is growing evidence of cross-border expansion due to Fintechs financial inclusions in different markets. Such cross-border financial integration could support greater diversification and risk-sharing across economies since the global financial crisis. The growth of Fintechs worldwide must organize by transparent cooperation between international regulators. Finally, Fintechs activities remain subject to the same well-known risks traditionally present in finance. in some countries, but not in others
Fintechs	Hu, Z., Ding, S., Li, S., Chen, L., & Yang, S. (2019)	Discussed the potential reasons for bank users to adopt and use Fintech services, Fintech services change the behaviour of banking clients towards Fintechs, examine the benefits and potential risks that affect the adoption attitude for new clients. The study provided a consumer assessment and empirical framework for banks to adopt new, user-centred services.
	Dorfleitner, G., Hornuf, L., Schmitt, M., & Weber, M. (2017).	They explored the impact of Fintechs on the German market and measured the size of the Fintechs market's impact. Their empirical study found out that the effect is relatively small to the entire financial market. The Fintechs represent a minor fracture of the most significant market shares compared to traditional financial institutions.
	Boot, A. W. (2017)	The disruptive forces of Fintechs have an impact on the banking sector. The online platforms may disrupt existing financial institutions. Online platforms facilitate access to various products and services of disparate providers along with record keeping. Fintechs could offer new opportunities for other businesses that have tried to enter the banking sector. However, the financial crisis of 2007-09 always overshadows banks' stability, but banks are trustworthy and may also have valuable compliance expertise.

Table 2 (cont.). Studies that examine Fintechs in literature

Research Stream	Authors	Finding
	Begley, T. A., & Srinivasan, K. (2019)	Small banks were twice as responsive as shadow banks to fill the gap than Fintech lenders regardless of rapid technological change. Further, the (potentially idiosyncratic) market participation decisions can have far-reaching effects through lending reallocation. The paper emphasised that those institutional features of the mortgage market and consumer preference for banks play essential roles. The results showed that small banks managed to lend loans despite the rise of shadow banks and Fintechs disruption in the USA.
	Cole, R. A., Cumming, D. J., & Taylor, J. (2019)	Examining bank finance is either negatively or positively associated with crowdfunding through two types of crowdfunding: debt and rewards-based projects. Banks should embrace and encourage lending to encourage and foster entrepreneurial activity to make use of crowdfunding marketplaces. Fintechs innovations using crowdfunding could facilitate banking growth. However, this growth through a positive association between bank finance and crowdfunding may risk loan repayment and cause systematic and idiosyncratic risks.
	Narayan, S. W., & Sahminan, S. (2018)	Examine the impact of Fintechs on Macroeconomic determinants such as inflation. Moreover, the inflation improved and led to a real appreciation of the rupiah against the US dollar in Indonesia.
	Bömer, M., & Maxin, H. (2018)	Their theoretical framework emphasizes why Fintechs have to cooperate with other finance incumbents, such as banks. The main reasons: first, banks enable a fintech's market entry; second, banks increase a Fintechs' profits. Banks couldn't compete with new Fintechs products by using different label approaches to sell their products when they cooperate with banks.
	Furche, P., Madeira, C., Marcel, M., & Medel, C. (2017)	The main challenges that Fintechs represents: Inclusiveness against the risk of uninformed decisions, decentralization, choice, and competition against operational efficiency, economies of scale, and client knowledge, Personal credit assessment and privacy, Inclusiveness against formalization and regulators, cybersecurity, and the potential risks cross-border dimension of these innovations.

Source: based on studies found in literature.

The Fintechs significantly boom in the payments sector, especially mobile payments. There are different national schemes in Europe and other countries with varying success. Many countries continue to emphasize mobile payments as an essential innovation. Also, RegTech represents compliance, identity management, risk management, regulatory reporting, and transaction monitoring. The new business models increased the outsourcing of regulatory activities by creating more financial digital services and platforms. The innovation in this area appears to be led by Fintechs rather than by banks. Banks have to adjust to the new digital financial inclusion that threatens banks by undercutting their business models and controlling the customer experience.

Conclusion

According to the Porter diamond model, this paper concludes the main drivers that led Fintechs to cross the border by providing specific digital banking services to meet customers' demands and needs. Moreover, Fintechs were able to fill gaps left by traditional financial institutions. Based on Porter's model, some countries have a competitive advantage by meeting specific consumers' needs and possess skilled digital financial inclusion drivers that allow Fintechs to thrive internationally. Nevertheless, culture, population, new technology, micro and macro conditions, data protection, transparency, poverty, regulations, and policies may also play a significant role in bringing Fintechs and their digital financial inclusion to the rest of the world. The latter requires deep investigation. The real impact of Fintechs, Fintechs digital banking services and internal and external drivers of internationalization still unfold. Most empirical studies focus mainly on the impact of Fintechs activities and filling the gap left by traditional banking services to meet consumer demands internationally. This paper may increase the scientific knowledge on the main drivers and reasons of internationalization Fintechs within the financial industry. However, the reasons for internationalization Fintechs differ to meet specific consumers demands in some regions than others. Fintechs have raised the complexity of competition policy, threatened financial stability, complicated and changed the nature of the financial industry, and imposed further challenges on financial regulators and European central banks, which are not entirely new.

Fintechs change the structure of financial business and services. The current competition structure favours bank safety, and soundness than the size of the impact of Fintechs on economics, financial stability, and regulations are still theoretical. It is an early stage to decide whether Fintech could cause an inefficient and

unstable financial environment or build a more affordable, accessible, and stable financial system (Van Loo, R., 2018). Fintechs consider as an additional burden and require urgent attention of Bank systems. Central banks and BIS have donated innovation websites and started to conduct their research and studies to examine the impact of Fintechs on the economy and banks. Online banks, mobile banks and Neo-banks have begun to have a broad base. Latter are competing strongly with traditional banks. This paper includes that Fintechs could disrupt existing financial industry infrastructure, blurring industry boundaries, facilitate strategic disintermediation, incumbent how other financial institutions create and deliver digital financial inclusion, provide new gateways for Fintechs to operate globally, and make important privacy, regulatory and law enforcement challenges. So far, Fintechs possess key success factors and the capability to work in a new economic environment with the absence of clear policies and supervision to evaluate consumers' risk, cybercrimes, and more. Fintechs have started to impact different countries' economies and threaten banking systems and credit institutes because banks consider the core of the payment system, credits, deposits, and loans. The financial and economic system's face is changing and needs a comprehensive examination of all the merits of the matter that jeopardies financial stability.

There are new areas that need to be addressed and examined, for example:

1. Examine the impact of Fintechs on financial stability at both micro and macro levels.
2. What is the best approach to regulating Fintechs to balance consumer protection/privacy and credit access while promoting data sharing?
3. Is there a need to build a new regulatory framework and design from scratch to account for emerging Fintechs considerations, or can we take an incremental approach and add to the existing framework on the margin?
4. Can Fintechs constitute non-systemic risk? Or we are heading to another financial crisis?
5. Do Fintechs threaten the future of banks?

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