

# Fintech in India

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## List of Acronyms

**APAC:** Asia-Pacific Region  
**MICR:** Magnetic Ink Character Recognition  
**BC:** Banking Correspondent  
**UPI:** Universal Payment Interface  
**NPCI:** National Payments Council of India  
**KYC:** Know your customer  
**BBPS:** Bharat Bill Payment System  
**BBPCU:** Bharat Bill Payment Central Unit  
**RBI:** Reserve Bank of India  
**IIT:** Indian Institute of Technology  
**IIM:** Indian Institute of Management  
**PPI:** Prepaid Payment Instrument  
**NRI:** Non-Resident Indian  
**NSDL:** National Securities Depository Limited  
**eKYC:** electronic Know your customer  
**SEBI:** Securities and Exchange Board of India  
**IRDA:** Insurance Regulatory and Development Authority  
**TRAI:** Telecom Regulatory Authority of India  
**LIC:** Life Insurance of India  
**O2O:** Online to Offline and Commerce

# 1.

## Introduction

With a population of around 1.3 billion, India is a growing market for Fintech. A large percentage of unbanked or underbanked population and the fact that it is a young nation witnessing high growth in digital penetration, makes India an exciting global space for Fintech.

With over half a billion dollars flowing into startups, Fintech in India has grown rapidly in the last three years and the segment is expected to grow further. Banks and financial institutions have taken note of this and are actively participating in the ecosystem. The government and regulators have also taken several initiatives to boost the Fintech ecosystem and provide startups with new opportunities to launch competitive products.

The aim of this report on Fintech in India is to provide a comprehensive overview of the Indian Fintech ecosystem. The first section of the report summarizes the Fintech ecosystem in India including the investors, startups, accelerators and incubators, human capital, and initiatives taken by banks and the government.

The second segment discusses the uniqueness of the Indian Fintech ecosystem, compared to other global Fintech hubs. It also provides a brief analysis of innovation, trends and key growth drivers for payments and lending segments, which have seen rapid growth in India in the last couple of years.

In the next segment, the report provides details of two key Fintech companies – Paytm and Zerodha – which have disrupted the traditional means of doing business and have been prominent in their segments. It is followed by an analysis of an upcoming Fintech segment in India: InsurTech.

The report concludes with an overview of how Swiss entrepreneurs could benefit from the Indian growth story, and major areas of making an impact. It also provides insights into some of the major challenges Swiss Fintech startups could face when they enter the Indian market.

## 2.

# An Overview of Fintech in India

In line with the rest of the world, Fintech is a young industry in India. This section starts off with explaining where Fintech came from and how far it has come. It further outlines the ecosystem such as investors, startups and government agencies active in the Indian Fintech space.

## 2.1 The Evolution of Fintech in India

The Indian government began liberalizing its banking industry post-1990 with the introduction of technology-savvy banks. The government also took legislative action to boost the banking system and pushed new technology such as MICR, electronic funds transfer and other electronic payments that revolutionized the banking system and in turn boosted the Indian economy. However, for two decades from 1991, the technological innovation in financial services and banking were government-driven and witnessed slow growth.

Mimicking the global trend, the Indian banking and financial industry has witnessed the penetration of startups or Fintech in the consumer-facing offerings from the mid-2000s. One of the initial offerings, which came up at around 2005, was the banking correspondent (BC) model, which was used to increase penetration of financial services to the rural household. With agents having basic technology to perform financial transactions BCs offered a low-cost alternative to setting up branches for FIs to serve the rural population. FinoPayTech and Eko India were the major startups that took advantage of this opportunity and built their services around the BC model. 2010 saw an emergence of payment startups in mobile wallets; e-bill payment and mobile recharge services. Major Fintech startups such as Oxigen, MobiKwik, Paytm and Freecharge originated between 2005–10. From 2010, there have been multiple Fintech startups that have mushroomed in different segments such as lending (100+ startups), personal finance management (40+ startups) and investment management (90+ startups). Fintech has gained even more prominence with VC firms displaying keen interest with a 40% growth in investments or funding activity between 2014 and 2016. Banking technology startups offering solutions that help banks to digitally and cost-effectively serve their customers are still in a nascent stage and are expected to take off as the digital and smart city initiatives of the Indian government are aimed at providing the physical and digital infrastructure for the last-mile digital connectivity.



Source: LTP

““As we go from data-poor to data-rich, we are just getting started in Fintech.”

**Mr. Nandan Nilekani, Former Chairman - Unique Identification Authority of India**

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The last three years (2014–16) have witnessed various developments in the Fintech segment in India where apart from startups and investments, the established corporate sector including banks, financial institutions and others as well as the government and regulatory bodies have taken steps to develop, implement and propel innovative solutions.

The regulatory bodies and banks have brought new solutions that will create interesting opportunities for Fintech and the financial services sector as a whole. The most prominent of these is the launch of UPI – Universal Payment Interface. To leverage the increasing usage of smartphones and mobile apps, NPCI (National Payments Council of India, the umbrella organization that sets the payment rails in India) launched UPI, a set of standard APIs with an open architecture provided to the banks in order to facilitate account-to-account transfers by customers by entering just one virtual ID (like name@bankname.com or mobilenumber@bankname.com). Leading startups like India's largest marketplace e-commerce players Flipkart and Snapdeal have partnered with Yes Bank and Axis Bank respectively to incorporate UPI in their mobile payment offerings. Yes Bank has also partnered with 50 merchants in various segments such as lending, e-commerce, and mobile payments to provide full usage of UPI via their Yes Pay Wallet. This enables business for efficient P2P transactions, and also eliminates the waiting time or failed transactions associated with online payment and gateways.

Another visible trend in Fintech ecosystem is the growing number of partnerships between banks and Fintech startups. For instance, HDFC Bank and the Fintech startup 'Tone Tag' have partnered to provide phone-based proximity services and Yes Bank partnered with Ultracash Technologies to enable sound-based proximity payments. Banks have also launched solutions with the help of their in-house teams aimed at improving the digital financial infrastructure. Some of the initiatives include:

- ICICI bank launched a contactless mobile payment system which could enhance NFC payments in India
- Axis Bank presented the 'Invoice to Payment' feature that provide end-to-end digital invoicing and payment solutions
- DBS introduced the first mobile bank that allows customers to open accounts digitally with their PAN card and Aadhaar card
- Union Bank launched the \*99# mobile application in partnership with NPCI that allows basic services like balance inquiry, fund transfers and mini statements to its customers even when there is no internet

These new solutions will enable Fintech startups to leverage the infrastructure created by banks to enable their solutions or enhance existing offerings with superior product experience.



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## 2.2 The Indian Fintech Ecosystem

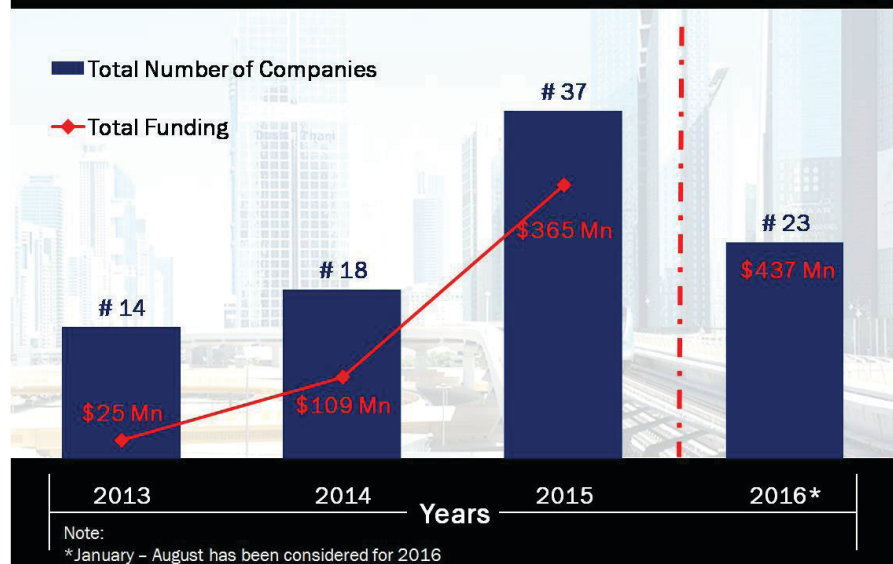
A major role in kick-starting the evolution of Fintech in India was played by startups offering digital mobile recharges. For a very long time, Indian consumers used coupons purchased from retail outlets, largely by cash for prepaid mobile phone recharges. This evolved to digital recharges, which in turn evolved into digital wallets and usage of wallets for various other commerce activities. The fact that these new offerings have strongly impacted consumer behaviour has not only attracted attention from more technology savvy individuals, but also a lot of investments. An analysis of Indian Fintech startups that have been founded post-2007 shows that investments in these firms has grown from USD 25 million in 2013 to USD 109.1 million in 2014 and reached USD 364.6 million in 2015.

Interestingly, the investment in Fintech startups is not limited to mobile wallets. India currently has over 600 Fintech startups in the space of lending, payments, InsurTech, blockchain and RegTech. This number is expected to grow further with initiatives such as focused accelerator programs by local and regional governments and banks, and funding support by leading corporates and VCs.

Segment-focused VC firms or segment-focused arms of VC firms have only just begun skimming the Fintech potential in India. This is in contrast to developed markets like USA where one can find Fintech-focused VC firms like Ribbit Capital, QED Investors, Nyca Partners and more. However, not having segment-focused VC firms does not imply a shortfall in investment for Indian Fintech startups – VC firms in India have invested across segments including Fintech. For example, Sequoia Capital and Matrix Partners have invested in cab aggregators, Fintech startups and e-commerce. Both these investors expect higher returns with the huge cross-industry growth potential. The rise of cab aggregator services has resulted in the growth of the number of cabs in India, which has led to an increased demand for auto financing options in lending. The growing digital penetration is driving e-commerce, and the usage of wallets for enabling commerce transactions has led to an increased demand for payment offerings. This kind of cross-industry growth has been driving VC firms to invest across segments.

In early 2016, Goldman Sachs announced early-stage conversations with Indian Fintech startups to potentially invest up to USD 10 million. Apart from international financial institutions such as Goldman Sachs, Barclays and Citi, other banks such as Indian's largest national bank State Bank of India have set up innovation hubs or accelerator programs to attract startups. Well-known global investors like Sequoia, SAIF, Matrix Partners, IDG Ventures and others have made few big bets in the Fintech space such as MobiKwik, Citrus Payments and Bankbazaar.com.

## Funding Analysis of Startups



### Top Companies

Note:  
2013 had other small deals and hence only 6 have been mentioned.  
Only companies founded post 2007 have been considered.

Source: LTP

Among the various other interesting Fintech startups that have procured funding, one such startup, Capital Float, provides loans to SMEs by assessing their history through partnerships with e-commerce players. Capital Float has raised three rounds of financing on consecutive years between 2014 and 2016. The major driver for its growth has been mutual growth between e-commerce and lending requirement for SMEs. The company has enabled merchants on e-commerce platforms to finance their growth that in turn benefits the e-commerce players, that would eventually build stronger partnerships with Capital Float. Another company, which has been getting traction from investors, is Bankbazaar.com, an application-based end-to-end financial service provider. The company aggregates financial products from banks and compares them to suit the needs of the customer. The company also helps in collecting the documents required for KYC and submits it to banks, which

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makes the application process easier for the customers and banks. They generate revenues by earning a commission on applications for banking products.

Additionally noticeable is the Fintech startup Citrus Pay, which has launched 'Selfie' which enables individuals and small businesses to promote, sell and collect payments on social networks and instant messengers, propelling social commerce. Finally, to cater to the large number of customers without a credit card – only 10 million people in India have a credit card – ZestMoney has launched an on-demand instant credit service. This boosts the buying capability of the young population, which has no access to credit cards.

Hence, both investors and startups in India have been actively involved in the emergence of a vibrant Indian Fintech ecosystem. They have, however, moved into a space that has traditionally been heavily influenced by the Indian Government and Regulatory Bodies as well as the Financial Infrastructure. The impact of these regulatory frameworks is outlined in the next section.

## 2.3 Government, Regulatory Bodies and Financial Infrastructure

The government and the regulatory bodies have recognized the changes that are taking place in the Indian Fintech space and have constantly kept pace with the rapidly changing environment in terms of technology and customer expectation.

The Indian government has launched a funding support initiative called 'Startup in India' which has a dedicated fund of USD 1.5 billion to support Indian startups. Similar to VC funding, this fund is expected to be disbursed across various segments, not limited to but including Fintech. Furthermore, the Indian government has launched various tax and surcharge reliefs such as income tax exemption for startups for the first three years, setting up National Credit Guarantee Trust Company to provide credit guarantee mechanisms via debt funding for startups, and exempting capital gain tax for investments in unlisted companies for longer than 24 months.

India offers a strong infrastructure for Fintech startups from around the world, which are planning to start their operations or are planning to expand to the Indian subcontinent. A few of the key parameters that portray the opportunities present are as follows.

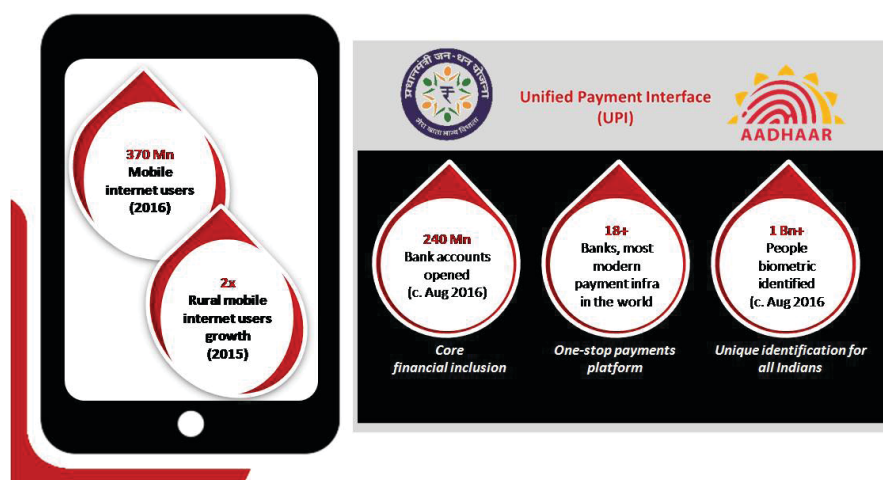
**Financial Inclusion and Enablement:** The launch of 'Jan Dhan Yojana' scheme, aimed at providing a bank account for every individual and increase banking penetration, was launched in 2014 and has added more than 240 million bank accounts in the past three years. Fintech startups with their asset-light model can build on this infrastructure by providing easy-to-use and efficient transaction

services (P2P, C2B or B2C) across financial services segments like micropayments, lending, insurance, mutual funds and others.

**A growing digital population:** With around 370 million Internet users in India, the Internet penetration still lies at less than 40%. This is expected to grow in the near future continuing the 2x growth witnessed in 2015 in rural population coupled with government initiatives such as 'Digital India' aimed at penetrating digital services. The growth is expected to increase the penetration of current Fintech startups as well as provide a new market for potential new solutions and new players.

**Promoting non-cash transactions:** In order to reduce the amount of paper cash being used in day-to-day transactions, the government has taken certain proactive steps like tax rebates for merchants accepting more than 50% as electronic payment.

**Biometric identification database:** Aadhaar, the government's initiative to create a central identification database, now holds the information of over 1 billion Indian citizens. This is being leveraged for eKYC and financial benefit transfer schemes. It also helps firms to reduce the time and effort required for first-time customer verification. DBS, a global bank, has launched their mobile-only banking platform called Digibank, which leverages Aadhaar for customer verification.



Source: LTP

On the regulators' side, India's central banking institution and regulator Reserve Bank of India (RBI) has put in place new guidelines in 2014 relaxing the rule for requirement of customers to undergo a KYC process for transactions up to INR 10,000 per month through prepaid instruments. This guideline allows consumers to download a wallet of choice and use them for transactional services such as booking tickets, P2P remittance and paying bills without the need for documentation or photographs.

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With an approximate 70% of the bill payments from top 20 cities amounting to around USD 100 billion estimated to be paid by cash, the RBI has launched the Bharat Bill Payment System (BBPS). BBPS will enhance the current bill payment infrastructure, which is biller-specific in terms of mode of payment and channels supported to provide customers with 'anytime, anywhere' payment options. BBPS will function as a tiered structure for operating the bill payment system in the country. India's umbrella organization for payments, National Payments Corporation of India (NPCI), will function as the authorized Bharat Bill Payment Central Unit (BBPCU), which will be responsible for setting business standards, rules and procedures for technical and business requirements for all the participants. NPCI, as the BBPCU, will also undertake clearing and settlement activities related to transactions routed through BBPS. As on date, 62 entities have received in-principle approval from RBI to function as Operating Units, out of which 52 are banking and 10 are non-banking entities. ItzCash, Paytm, Oxigen, PayU are some of the Fintech startups that are part of this project.

Another popular Fintech initiative is the launch of UPI, a modern payment infrastructure that is expected to be launched by 18+ banks and Fintech startup partners. Apart from these initiatives, the RBI in June 2016 has also set up a multi-disciplinary committee to study the Fintech business in India. The committee is expected to study the new models of innovation, provide a framework and guidance for Fintech startups, and also develop infrastructure to promote innovation.

Fintech startups, banks and the government's recent activities have hence paved the way for institutionalised startup activities. This has led to the emergence of specialized accelerators and incubators that are covered in the next section.

## 2.4 Accelerators and Incubators

India is considered as one of the top five countries in terms of number of startups. This is set to further increase with digital and smart city initiatives taken by the government of India that are focused on building a connected technology infrastructure in the country. Such an infrastructure would ease the process of customer onboarding and connectivity for Fintech startups. At the time of compiling this report, 13+ Fintech incubators and accelerators exist in India. Some Fintech-specific accelerators/incubators are outlined below.

PayPal, which has been at the heart of Fintech innovation, launched Start Tank incubator in 2013. The incubator provides an obligation-free environment to startups to use their facility. A few Fintech startups that have taken part in their incubation program are CashFree, D-Rewards, Notifie and ftcash.

Rainmatter and K-start, both incubators, not only provide mentorship and technological benefits to startups, but also provide funding opportunities (US \$100–500k) for scaling the startup operations.

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A new trend can be witnessed in India, where banks have started partnering with accelerators and Incubators to show their support to the Fintech startups. As such, YES bank has partnered with India's largest incubator T-Hub to provide Fintech startups products, payment gateways and open APIs. Similarly, Axis Bank has launched Thought Factory to help accelerate the development of innovative technology solutions for the banking sector. One of India's leading startup accelerator Zone Startups located at the iconic Bombay Stock Exchange building, runs majority of corporate Fintech programs such as Barclays' Rise accelerator program, Thomson Reuters's Fintech Innovation Challenge, and Axis Bank's startup accelerator program.

With an economically favorable environment for Fintech startups and both private and public players actively supporting them, one main element influencing the strength of the ecosystem is the availability of talent. As the next section outlines, there is an abundance of Indian technical and business talent ripe to be included in startup activities.

## 2.5 Human Resources

India offers a large fresh talent pool for Fintech companies from engineering background that has an estimated average of 850,000 graduate and post-graduate students from various fields of engineering in India. Engineers from institutions such as the Indian Institute of Technology (IIT) and other world-class institutes constitute approximately 3.8% of the total Engineering graduates that are available for Fintech companies to hire. India is also the largest English-speaking nation after the USA. Though majority of these fresh graduates may not be immediately deployable to jobs – an on-the-job technical training investment for fresh graduate hires is a normal industry practice in India.

For MBA graduate hiring, India has some of the world's best business schools, that rank in top 100 such as ISB Hyderabad, IIM Ahmedabad, IIM Bangalore and IIM Calcutta. On an estimated average, there are about 220,000 MBA graduating in India every year.

Apart from the vast fresh talent, India also has approximately 2.5 million professionals in financial services for lateral hiring. For many years, India has been a destination for major financial services to outsource their processes. Apart from outsourcing, leading global financial services firms have set their captive centres in India. The outsourcing and captive arms of financial services were present in India for more than two decades and this has led to the development of mature models of outsourcing. Starting from voice process outsourcing, businesses have graduated to developing process-critical solutions such as infrastructure services and automation across financial services via outsourcing and captive centres. This has made a skillful and knowledgeable workforce widely available. Banks have been changing their model of the global extended team to service delivery model in India which has resulted in setting up various captive centres and centres of excellence. Danske

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Bank opened its captive centre in Bangalore in 2015, Deutsche Bank has set its captive in Bangalore, Pune, Mumbai and Jaipur and Credit Suisse has set up its Centre of Excellence in Pune.

Hence, the emergence of Fintech in India has been supported by entrepreneurial activities of early Fintech startups, the initiatives taken by banks, the government and incubators as well as the abundance of innovative talent. The report will now discuss how this emerging Fintech market in India is different from similar spaces around the world and the elements that make it special and appealing for Swiss startups.



Source: LTP

“The cost of technology and talent is not high in India so we have an unbeatable advantage.”

**Mr. Mohandas Pai, Chairman, Manipal Global Education Services and Aarin Capital**

# 3.

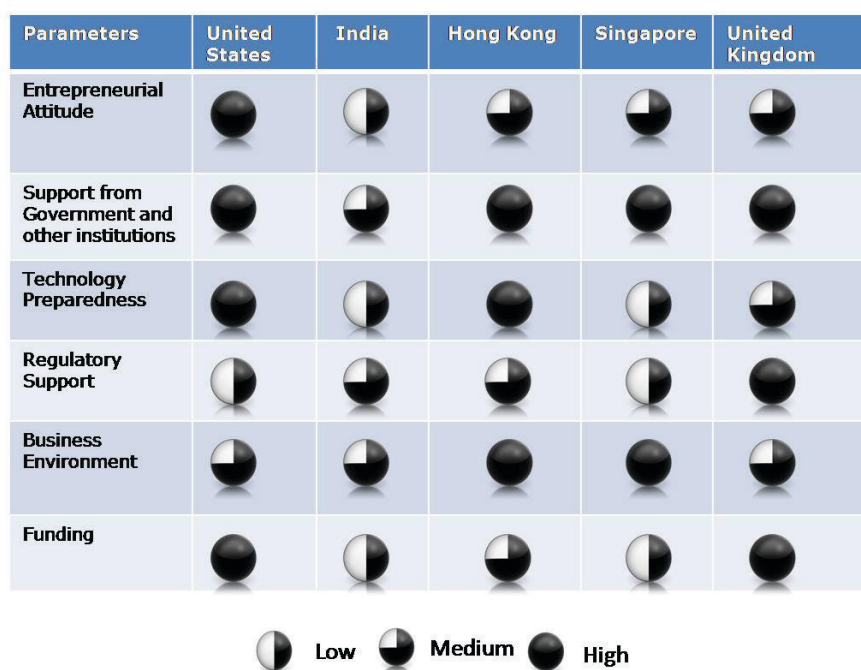
## What makes Fintech in India unique?

As was outlined in the previous section of this report, Fintech has been thriving in India for the last few years. However unlike more developed markets in Europe and North America, India's recent emergence as an economic powerhouse renders comparisons to these markets more difficult. This section aims at outlining what makes Fintech in India unique by firstly drawing the comparison to other global Fintech hubs. It will then proceed to discuss the most active segments in Indian Fintech – payments and lending – and finally offer an overview of the main innovations and challenges present in the current market.

Fintech in India is unique because it is young, growing rapidly, and is fuelled by a large market base. With internet penetration and mobile usage expected to increase rapidly from 53% in 2014 to 64% by 2018, India provides an attractive market for technology startups. The financial services market in India is largely untapped – 40% of the population is currently not connected to banks and more than 80% of the payments in India are still made by cash. This untapped Indian Fintech market provides a robust opportunity to significantly increase demand in almost every category – consumer lending, insurance, trade finance, digital payments and many more. In each of these areas, new Fintech solutions can help the market to grow significantly.

However, some areas are more strongly represented in the Indian Fintech market. The next few pages are dedicated to highlighting these focus areas.

### 3.1 Comparing India versus other Fintech hubs globally



Source: LTP



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With the United States, Hong Kong, Singapore and the United Kingdom blooming as global hubs for Fintech, India has only recently emerged as a key player. However, India holds a lot of promise as it provides the right mix of technical skills, government support, regulatory policies and the business environment for startups to flourish. For example, UPI in India is unlike anything available in the United States or the United Kingdom.

Some of the key characteristics of the Indian market that make it exciting and interesting for Fintech startups are:

- India is the only Fintech hub that provides ample opportunity to target large unbanked population. Coupled with the growing young population who readily accept new technologies, India makes an attractive destination for Fintech startups.
- The difficult exercise to change consumer behaviour towards accepting Fintech solutions is already underway.
- The broad level of technical education provides India with a strong talent pipeline of a comparatively cost efficient and easy-to-hire tech workforce.
- India has the second biggest startup ecosystem in APAC after China measured in deal size and number of deals.

Overall, India is confidently moving up the Fintech ladder and provides plenty of opportunities for Fintech startups to enter the diversified market and be successful provided a careful solution-customer match and a strong go-to-market strategy is in place. The two broad segments where Fintech is most active in India are payments and lending. Out of the more than 600 Fintech startups currently active in India, around 40% are payments and lending startups. The next few pages will hence dedicate special attention to these two Fintech segments.



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Between 2009 and 2010, RBI issued 26 prepaid payment instrument (PPI) licenses. Two types of PPI exist in India now: Mobile Wallets and Prepaid Cards.

- Mobile Wallets are app-based stored-value accounts, funded through credit/debit cards or via net banking. Paytm, Freecharge, MobiKwik, and Citrus (acquired by PayU) are some of the prominent Fintech firms operating in this space. Currently, these wallets are majorly used for mobile recharges, bill payments and online commerce. They are backed by VC funding and are spending heavily on customer acquisition through marketing initiatives. They are also expanding their services through tie-ups with cab services, retail stores, educational institutions and fuel stations to increase reach and usage of their wallet services. The wallet companies are also reaching the unbanked and underbanked through innovative solutions such as MobiKwik cash pick up service and Paytm tie-up with ICICI Bank for cash loading. Wallets are growing in popularity and several companies have applied for licenses with the total number of PPI licenses growing to 46 in 2016.
- Prepaid cards on the other hand have been promoted by startups including Oxigen, ItzCash, Suvidhaa and others, which provide solutions with an agent-assisted offering to consumers who are not digitally well equipped. The primary usage of prepaid cards is for expense management, remittances and railway booking. Other technology firms and startups have also penetrated the PPI competitive space by acquisitions to provide in-house wallet or payment solutions. Examples include Snapdeal acquiring Freecharge, Flipkart's acquisition of FxMart to offer Flipkart money and Amazon acquired Emvantage.

Apart from PPIs, another exciting development in the payments space is the so-called Payment Banks - new, stripped-down versions of banks conceptualized by the RBI. These banks are expected to reach their customer via digital channels and provide transaction services for the migrant labour market in India. The scope of activities these entities are permitted to undertake include acceptance of demand deposits up to USD 1,700 (INR 100,000) per customer, issuance of debit cards, offering payment and remittance services, acting as a business correspondent to other banks, distribution of mutual funds, insurance and more. They cannot undertake any lending activities, issue credit cards, accept NRI deposits or be a virtual bank. Payment Banks face the challenge of their inability to earn lending revenues and high rates of interest on floats due to the regulation of investing deposits in government securities.

As it would be economically inefficient for banks to open branches in every village, Payment Banks are expected to provide a digital alternative for the large unbanked population. This is expected to drive India's journey into a cashless economy and is being compared to the success of Vodafone's M-Pesa in Kenya where an estimated 70% of the population uses M-Pesa for domestic remittances and low-value purchases. Payment banks could also play

a crucial role in implementing government benefit transfer schemes.

In 2015, RBI provided in-principal approval to 11 entities to set up Payment Banks. Entities that received these licenses are Airtel, Vodafone, Reliance Jio, Uninor, Idea, Mahindra Finance, Cholamandalam, Paytm, NSDL, FinoPayTech and India Post. Cholamandalam, Uninor and Mahindra have already returned their in-principle license to RBI.

However, companies with the long-term vision, existing infrastructure and capital in place are looking at this solution as a major strategic bet and have laid down the roadmap for their operations. Paytm plans to start its operations by end of 2016 and India Post has received 51 applications from all over the globe for partnerships in setting up their payments bank and has stated that they would start operations by early 2017.

In summary, there are a large number of Fintech startups focused on payments. The above examples illustrate that they are rapidly evolving given changing use cases, customer propositions and business models. The support of a favourable regulatory environment combined with the young demographic willing to try and test new technologies, the Indian payments industry is a great place for Fintech startups to explore.

### 3.3 Alternative Lending

Another strong element in Fintech space in India is Alternative Lending. The major block of lending in India is still held in the form of community finance where family and community members, as well as offline lenders, dominate the space. Some experts feel that community finance is as big as the traditional bank consumer lending. The average annual market rate for such offline and unsecured loans is approximately 30%, which is almost 2–2.5 times the rate of an average personal loan charged by banks. Community lending has been thriving due to it being largely unregulated and a commonly accepted scheme of functioning among the unbanked and underbanked. However, with increasing financial inclusion and digital penetration, there have been an increasing number of startups that are looking at targeting this lending mechanism. Eight alternative lending startups feature among India's 50 most well funded Fintech startups.



Source: LTP

"Lending is a key area. Credit Suisse believes there is a US \$ 600 billion opportunity within [the] lending space."

**Mr. Nandan Nilekani, Former Chairman - Unique Identification Authority of India**

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Unsecured consumer lending as of today has largely been confined to the metros. There have been innovative technology-savvy solutions that have been targeted towards the urban crowd who are looking at alternative credit due to two reasons, for ease of access to funds where the technological process does not require huge documentation and large wait times which have been common requirements for bank lending and the other reason is lack of credit scoring where the growing young population of the country has largely been away from loans and hence, lacks any existing credit record. As a result, this segment does not have credit scores from Credit Information Bureau India Limited, which collects and maintains records of an individual's payments pertaining to loans and credit cards.

More recently, P2P (peer to peer) and segment-based lending have been gaining prominence. Fintech startups have developed solutions that provide superior customer experience and faster processing times for lending. P2P lending platforms act as an aggregator for lenders and borrowers to enable creating a match between both the parties. Faircent and i-lend are two of the prominent players in the P2P lending space.

Some of the startups have been involved in the activity of targeting microfinance with the goal of creating a social impact and providing easier access to credit to small entrepreneurs. For example, players like crowdfunding platforms Milaap and Rang De have used the social chord in order to develop their platform as well to have an impact on farmers and rural population.

Segment-based lending, on the other hand, includes players like EarlySalary that focuses on younger working population for providing loans. They give out loans from USD 150 to US \$1500 (INR 10,000 up to INR 100,000) based on the borrower's salary for a tenure of 7 to 30 days. Such segment-focused startups are at an early stage and could be a very attractive segment for new Fintech solutions.

However, as discussed earlier, a major chunk of these solutions are currently being targeted at the urban audience, leaving behind the rural and unbanked sector where the maximum potential lies. One major reason for such ignorance of Indian rural users has been the difficulty in collecting data around the unorganized Indian rural segment. There is a growing interest in solutions that can incorporate these unorganized data pointers, largely qualitative, to provide a comprehensive understanding of the tier-II and tier-III market. Traditional Non-Banking Financial Companies such as IFMR Holdings and agent-based new age financing players such as Equitas Holdings and Ujjivan Financial Services, that caters to unbanked urban poor, have made big strides in this space. These players have built strong algorithms that have been improved iteratively with the addition of multiple data pointers gathered not only from technology but also from on-field agents.

The traditional business lending segment is yet to witness major disruptions in the Indian context. The huge financing requirements and decades of trust and relationship between

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financial institutions and business have been tough to crack. However, the SME sector and the emerging digital business sector have started to take the alternative lending approach. Solutions such as receivables financing, equipment finance and to a certain extent mortgage finance have seen traction among the startups.

In spite of the pivotal role it plays in the country's economy, the SME sector suffers on account of inadequate financial access with an estimated USD 50 billion gap in SME credit. Fintech startups are allowing SMEs to focus on building their business by taking care of the gaps in SMEs capital requirements. The credit risk analysis is done digitally so that loans are provided in less than 48 hours. Startups in SME financing like IndiaLends, Lendingkart and Faircent have gained a lot of attention from the investor community. Invoice financing startups such as KredX is into invoice discounting to solve the problems of working capital of micro, small and medium enterprises by releasing the cash tied up in customer invoices that would otherwise be paid in 30 to 90 days. Another example is Instakash, a mobile data analytics company applying AI and machine learning to create financial products, focused on consumers and SMBs, to simplify financial access for the next-generation users. They are leveraging the overall growth of new-age startups and have developed dedicated loan products to meet those demands and have specific car loan products to finance Uber, Ola and other taxi-hailing service drivers.

Bank technology solutions startups aim to partner with banks to enhance loan origination and servicing capabilities. These include startups which provide digital onboarding, underwriting technology and loan servicing capabilities. This segment has seen widespread development in markets like the US and the UK but is yet to take off in the Indian market, providing a major opportunity for Fintech startups.

Overall, Swiss startups looking to enter the alternative lending market in India can take a cue from above examples and incorporate a mix of online and offline models to cater to the services of this still largely unpenetrated market. Startups can build solutions to provide an easy-to-use, low-cost, and better alternative lending for the borrowers and an alternative investment vehicle for retail and institutional investors.

### **3.4 Innovation in the Indian Fintech market**

Two key innovation drivers, Aadhar and UPI have huge potential to push the Indian Fintech ecosystem ahead.

Firstly, one of the most innovative initiatives to come out of India is Aadhaar, which acts as the core for India Stack initiative. 'India Stack' is a term used to explain a set of public APIs targeted at customer verification, digitizing identity, payments and secure personal digital content. It is led by iSPIRT, a non-profit industry body working with various volunteer

technology leaders, regulators and government agencies.

The very base of India stack is Aadhaar – the national digital ID program. Aadhaar extends to a billion Indians a powerful biometric database that can be accessed by any service provider. This is a huge milestone for India as until recently millions of Indians had no formal government identification. The data collected by Aadhaar forms the very foundation for electronic customer verification (eKYC), replacing the laborious physical verification previously required for financial transactions. This also cuts the time and cost of processing transactions by 50–80% depending on the product and service. Aadhaar is a gigantic step taking India forward and changing the economics of providing financial services to masses. The reason for Aadhaar's success has been the support that it has gathered over the years from various entities. Major Indian regulators such as RBI, SEBI (securities), IRDA (insurance) and TRAI (telecom) have widely accepted the Aadhaar-based eKYC.



Source: LTP

**“India Stack led by Nandan and iSPIRT is the going to be biggest disruptor in the financial services space.”**

**Mr. Mohandas Pai, Chairman, Manipal Global Education Services and Aarin Capital**

The second innovative initiative is Unified Payments Interface (UPI) with the aim to transform payments. It is an open API that banks can deploy to allow phone-to-phone payment transfers directly from bank accounts. The future of UPI is compelling – it will allow 1 billion plus mobile phones which will be used for everything from P2P transfers, local store payments, migrant labourer payments and other user cases. If we look closely at the impact that UPI will have on Fintech players, it is a blessing in disguise for payment agnostic players. Furthermore, it is expected to have a negative impact on players that have built non-interoperable and siloed products for example digital wallets, net banking network providers and card network providers. Overall, the success of UPI depends on its mass adoption and it is highly dependent on companies, developers, merchants and even customers to make sure that it achieves its full potential.

### 3.5 Challenges facing Indian Fintech industry

With all these positive developments in Fintech, India needs to address some important challenges.

Firstly, the absence of broad-based financial transaction infrastructure, which has been a major challenge as several Indians in rural parts of India do not have bank accounts, credit score and home ownership details. This has played a vital role in the lack of financial services penetration. For example, loans or lending in India is tedious and time-consuming as regulations demand physical documents for identification proof, pay slips, notary copies of all documents, verification of signatures, in-person verification, and physical inspection of property. Due to the lack of relevant financial data, the risk of lending to millions of undocumented and unverifiable Indians is very high even though they satisfy the income sufficiency test.



Source: LTP

**“Fintech startups must know how to sell their technology and make it seamless.”**

**Mr. Mohandas Pai, Chairman, Manipal Global Education Services and Aarin Capital**

Secondly, as the native digital and financially literate population is low, the current set of financial products and services do not cater to the vast majority of Indians and are only designed for the top 40 million of the population. There are about 400 million Indians who earn between USD 3,000 to USD 15,000 a year and their needs have not been addressed yet. Bala Srinivasa, Partner at Kalaari Capital feels that this is an opportunity for Fintech startups in India and incumbents to capitalize and to reimagine the needs of the rest of the population.

Finally, there is a dire need for innovation in developing segment-specific vertical products unique to India. India has already seen a glimpse of it including small ticket of unsecured loans, prepaid plans for single medical procedures, instant point-of-sale credit, pay-per-day insurance, micro-investment products and others. Currently, startups have not gone in-depth to understand the segment and create solutions that are usable, affordable and profitable. For instance, solutions such as credit schemes focused on woman entrepreneurs, social financing and crowd financing are areas that are yet to see any large-scale disruptions. Addressing these challenges by not only building on the innovations already initiated by Indian Fintech startups, but also by building disruptive solutions, can provide an unique opportunity for startups to profit from the large Indian Fintech market.



# 4.

## Case Studies

This section offers a glimpse of selective domains that stand out in the Indian Fintech market. It discusses InsurTech and is then followed by two case studies of companies that have done particularly well in India.

### 4.1 Insurtech – the new kid on the block

Apart from traditional segments such as payments, lending and fund management, India offers a good potential in many other segments. One such segment is insurance where InsurTech startups can have deeper impact and possibilities to disrupt the market.

India is attractive from an InsurTech perspective due to the size of its significantly underinsured population. According to the global reinsurer SwissRe, the Indian insurance penetration stands at 3.4% in 2015 compared to a global average of 6.2%. Insurance penetration refers to premiums as a percentage of GDP. The insurance sector in India was liberalized in 1999, which marked the end of the monopoly of LIC (Life Insurance of India, the largest public sector insurance provider), and the number of companies increased from two prior to 1999 to 53 in 2016. Approximately half of these 53 companies provide life insurance and the other half deal in non-life insurance matters.

As the second-most populous country in the world, India constitutes for approximately 2% of the life insurance and 0.66% of the non-life insurance premium paid globally. Premium income has witnessed a growth of 22.5% in 2015–16 (April 2015 to March 2016) and reached INR 1.38 trillion. The increase in savings of households and the growth of the economy is expected to increase premiums and investment into insurance policies. Apart from the market potential, the government has been taking initiatives such as increased FDI limit to 49%, increased tax incentives for health insurance schemes, schemes to provide insurance for the unorganized sector workers that can be seen as favorable factors for increased penetration in the next few years. Government schemes launched in the last two years include the Pradhan Mantri Suraksha Bima Yojana, which is a personal accident insurance scheme and the Pradhan Mantri Jeevan Jyoti Bima Yojana, which is the government's life insurance scheme. The two major schemes launched in the past two years offer basic insurance at minimal rates and can be easily availed of through various government agencies and private sector outlets.

Fintech startups can play a major role in both enabling established insurance firms and in designing new types of insurance products. In terms of infrastructure, digital distribution is expected to save life insurance companies 10–20% in costs while it is expected to save 20–30% for non-life insurance companies. Also, the online channel is expected to drive 50% of life insurance and 75% of non-life insurance of the USD 165 billion of new insurance sales in 2020. Currently, the sales and distributions are largely paper-driven and startups that provide or build this infrastructure can partner with insurance firms to provide digital

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distribution channel. Apart from digital distribution, algorithms could be created for data capture and cross sales, enhanced customer engagement and conversion, and enhanced underwriting technology, which could be provided for insurance firms to better price and segment their offerings.

In terms of product, with non-life insurance penetration at 0.8%, very few products exist for traditional segments such as crop insurance, micro-insurance, motor insurance and health insurance sectors. Startups with strong underwriting capabilities can develop unique models for the Indian market and develop/design products that cater to the specific needs of the segment. Also, in non-life insurance, the emergence of IoT coupled with the smart city and connected devices initiatives of the government can lead to new underwriting models in the insurance industry.

Currently, PolicyBazaar and Coverfox are the two main InsurTech companies that have been notably doing well in India. The companies have formulated a unique aggregator model for both life and non-life insurance and have gained traction from VCs due to the potential for digital sales in the insurance sector. They are ensuring to educate customers not only on policies and their availability but also on the kind of insurance a particular customer needs, thus creating awareness for products in the consumer's mind.



### **PayTM – from Fintech startup to India's largest payment company**

Paytm, India's largest payment company, was launched in 2010 as a mobile recharge service provider and has evolved gradually to an e-commerce marketplace in 2014. The company then increased its services by providing bus tickets in 2015 and introduced movie tickets and flight tickets in 2016 through its portal.

After providing various value-added services for telecom operators, Vijay Shekar Sharma launched Paytm in 2010 as an online prepaid mobile recharge portal. As they were one of the first to provide this service, they increased the customer base rapidly and soon expanded Paytm as a semi-closed wallet in 2013–14. They then moved into multiple business ventures – movie tickets, wallet integration to other commerce applications (online & mobile), e-commerce and others. Riding on the trend of rapid mobile penetration in India and also the fact that the user will spend more time online, Paytm has created over 100 million wallets carrying out over 75 million transactions per month.

Paytm aims to be the first profitable e-commerce venture in India by refining its O2O (online-to-offline and offline-to-online) business strategy. O2O refers to consumers being able to search and buy across channels. For example, a consumer would be able to search for a particular product online but purchase the same at the closest offline outlet and vice versa. It has acquired hyperlocal service marketplace Near.in and invested in delivery enabling startups Jugnoo, an online aggregator of auto-rickshaw services and Little, a platform that helps consumers find deals at nearby outlets to enhance their O2O model.

Apart from O2O, Paytm has a strong focus on data science and uses them to identify Stock Keeping Units which help in increasing the margins and also in fighting card fraud.

With its payment bank license granted from the RBI, Paytm will be able to open checking/savings bank accounts. It plans to use this as a platform to further enable micro transactions via its wallet and also as a revenue source by cross-selling financial products. Paytm has received a total funding of around USD 740 million with Alibaba being its leading investor, owning close to a 25% stake.

Payments and wallets are a highly competitive segment in India with a large number of global and local players. However, with 80% of the transaction still being done by cash, cost effective digital payment solutions specifically in the micro-transaction services segment, have a good potential for growth. To fight the large established Fintech players, access to capital would be a major requirement for new solutions enabling plain wallet services. With simple value added services, startups can expect higher customer loyalty and traction.



**Zerodha – India's discount brokerage  
platform for the 21st century**

Launched in 2010, Zerodha is India's first provider of electronic discount brokerage platform and is known for pioneering the zero-brokerage concept in India. It currently caters to around 120,000 clients with average daily turnovers of USD 1.5–1.8 billion in equities and USD 150 million in commodities. It has generated revenue of USD 25 million and a profit of 10 million in 2015.

The company has disrupted the traditional model of brokerage in India where it charges a fixed fee per executed transaction rather than charging a percentage of the total traded. This has helped Zerodha in targeting clients that execute large volumes of trade in futures and options and exempted them in paying high-broking charges. This has led to a vast growth in the number of customers they serve. Apart from the low fees, the company has also built different offerings for different trading segments. It has a total of seven offerings, each catering to futures, equity, options, commodity and currency segments.

The company plans to grow its customer base to 1 million by 2017. In order to reach this target, Zerodha recently launched its platform in 11 regional languages and has a strong strategy including product launches, new service offerings and customer education.

The company has taken steps to educate the customer in understanding their trading habits and how to evolve to be a better trader by launching tools such as Q, Quant and Open Trade. These tools not only help customers in understanding their trading habits but also help them in picking trade updates from profitable traders based on their trading style and help them in gaining customer loyalty. The educational initiatives undertaken by the company include an active finance blog which explains the key terms of trading and also educates consumers on how to make trading and long-term bets and free expert training videos on YouTube.

Rainmatter, a Fintech Incubator is another key initiative by Zerodha which helps to bring innovative solutions to the market. Rainmatter provides startups with APIs, research, and mentoring and financial support. Zerodha invested USD 375,000 in April 2015 in Tradelab, a stockbroking and analytical software. This solution was later provided as an integrated offering in one of Zerodha's product, 'Pi'.

Investments management is a high growth segment for startups. With a lower number of startup solutions, multiple subsegments could be targeted and could offer Fintech solution providers the first mover advantage. However, customer education is a key requirement for acceptance of these solutions in India.

# 5.

## Opportunities and Challenges

According to the data of MEDICI research, an estimated 90% of the Fintech startups in Switzerland are from investments platform, payments, InsurTech, virtual currency and blockchain, security and analytics, and personal finance management segments. These segments also hold promise in the Indian Fintech space.

Increasing financial inclusion and regulators opening up licenses for innovative solutions are expected to drive India's Fintech market. A few major areas that are ripe for disruptive solutions in the Indian context are InsurTech, analytics, artificial intelligence, and investments platform.



Source: LTP

"Swiss Fintech have an opportunity in India, if they have deep domain expertise. Fintech opportunity is big and next 10 years would be interesting. Asset management/Wealth Management and Insurance are great areas."

**Mr. Nandan Nilekani, Former Chairman - Unique Identification Authority of India**

As described above, lending is a growing segment in India. However, the major challenges financial institutions and startups face are in underwriting the risk for unorganized data. Any established analytics platform, which can provide such services, would be a great success in the Indian context. Also, fraud and security are a major focus area for banks as well as Fintech startups, especially in transaction and payment services. With the launch of modern payment instruments such as UPI and the increasing usage of wallets and cards, there is also the issue of fraudulent transactions that needs to be tackled. Hence, major entities invest heavily in this space. Swiss startups in data management, security, and fraud analytics space could consider providing their solutions and establishing their presence in the Indian market.

InsurTech startups that can provide digital services are expected to gain interest from investors, insurance firms and consumers. According to Amit Kalra, Senior Vice President Head of Strategic Initiatives at SwissRe, which is running the first InsurTech accelerator in India "insurance is a 4.6-trillion-dollar-industry and has been largely conventional- the current startups are working just on the surface and has a strong potential to be disrupted by innovative ideas, business models and technology led solutions."

With a high-growth economy, growing savings and higher financial literacy and awareness of investments, the scope for investment management services is huge. Established firms are looking for solution providers who can work with them to not only enhance but also expand

their offerings. According to Nithin Kamath, Founder and CEO of Zerodha which runs Fintech incubator Rainmatter technologies, “in India when you hear about financial technology, it’s mostly wallets and online payments. We’re more interested in startups that focus on money management [and] trading in markets.” Rainmatter is specifically scouting for foreign startups. This provides an opportunity for Swiss startups eager to explore the Indian market for their international expansion.



Source: LTP

“Swiss startups have a fair chance in the Indian InsurTech space. Any idea/solution with technology as a core has no borders. Swiss startups can surely apply to our global InsurTech accelerator programme in Bangalore.”

“We have global VCs in India and I am sure they would be open to fund Swiss start-ups which establish their proposition in the Indian market. With right validation in both developed and emerging markets, they will have strong future prospects.”

**Mr. Amit Kalra, Senior Vice President, Head Strategic Initiatives and Analytics unit at Swiss Re, Bangalore**

Swiss startups could also use the support of home grown global banks like UBS. UBS offers its small-business customers, bexio (a startup), that focuses on cloud-based accounting software. Andreas Kubli, Head of Multichannel and Digitization in UBS Switzerland, feels that the partnership model with bexio will become a “blueprint” to replicate in other countries. Credit Suisse, another Swiss multinational financial services holding company, is an active promoter of Fintech startup hubs and incubators globally. It plays a mentor-like role in evaluating Fintech startups in Switzerland across segments such as artificial intelligence, crowdfunding and robotics, and provides mentorship from their staff. Swiss startups, which are planning to enter India, can become a mentee under the guidance of Credit Suisse India.

Apart from Swiss banks, Fintech startups can also look at several Indian banks such as HDFC bank, State Bank of India, Federal bank, RBL, ICICI bank among others who have either allocated funds or created special divisions to engage with the Fintech startup ecosystem.

Swiss startups are likely to face the same set of challenges that Indian startups are going through, namely raising capital, acquiring customers and monetisation. Raising capital is a competitive exercise, as there are a huge number of new startups fighting in a tight funding environment. Customer acquisition is another hurdle where the vast majority of the

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addressable market in India is offline and the cost involved in bringing them online is quite high. Monetisation or being profitable is also an issue that startups face. This is partly due to the fact that multiple startups in India have grown by the freebies route, where they initially provide the service for free or at a huge discount and are yet to enter the profitability phase. The other challenge that Swiss startups could face is the 'me-too' solution providers, where new startups providing similar solutions are fast to emerge and also localize their offerings to the market needs.

To make a mark in Indian Fintech, Swiss startups must adopt a hybrid model which is a combination of online and offline strategy to acquire customers. As the market matures and services such as eKYC, digital verifications and digital payments become more common, Swiss startups could rapidly shift to a complete online model in India.

# 6.

## Summary and Conclusion

Innovation in financial services has been growing across the value chain – from product development, packaging, and delivery, to services. Technological advancement coupled with commoditization trends has led to the development of a new crop of nimble firms providing services in each segment of financial institutions offerings. Fintech startups are redrawing the traditional approach to banking services. However, the ability of these startups to match and – in many cases – surpass the offerings and trust the consumer has built with a bank will be a KPI in the long term.

The increasing economic power coupled with the sheer number of end-users in the APAC region make an attractive case for Fintech. India, the fastest-growing economy of the world is also home to the second-largest number of Fintech startups in APAC with China leading the pack. The growth in Fintech solutions has seen huge uptick in the last couple of years. This is further expected to grow with the renewed interest from banks and regulatory bodies. Banks have started to actively participate in the Fintech boom by looking for partnerships and investments with startups while the government and regulators are drawing new frameworks and policies that incentivize innovation and entrepreneurship.

Swiss startups have ample opportunities to extend their offerings and establish their presence in India. Below are few key pointers to consider:

- India provides a vast user base to startups as the population is rapidly adopting digital technology and hence, the scope for digital services is set to increase.
- India, being the home for outsourcing and captive services for decades, offers a huge number of fresh talent and installed talent which Swiss startups can capitalize on.
- Indian banks and majority of the large global firms have opened their Fintech innovation hubs and accelerator programs in India. This is further set to increase as this trend has started only in 2016.
- Government and regulatory bodies have developed a strong financial infrastructure that is being leveraged for Fintech innovation. Also, there have been multiple policies and initiatives aimed at promoting financial inclusion and innovative banking services.

The challenges discussed in the report remain. The need for consumer education, building trust, and getting the right licenses would be the major building blocks to starting up in India.

Overall, India offers a huge market for Fintech that is ripe for disruption. With rising financial awareness, any startup that comes to India would need to strike the right balance between their product and the market, invest in customer education, develop innovative business models and build Fintech in India.



# 7.

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