

## **Emergence of TechFin in the emerging economies**

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**Abstract:** *The growing interest of technology companies in the domain of finance has resulted in the emergence of TechFin in recent years, which invigorates the financial system by a technology-centric approach and is of interest to the technology companies, especially the BigTechs with an already massive base of customers. The advent of technological advancements encourages the emerging technologies to flourish for the simplicity of usage (tech interface: ease and reach) and efficiency in the process (case of AI/ ML and data analytics), for which a tech-first organization may easily triumph over a financial institution. This paper aims to review the current ecosystem of TechFin while understanding the potential growth in emerging economies like India, Indonesia and Brazil.*

**Keywords:** *Techfin, India, Fintech, Technology, Finance, Payment, Digital*

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### **What is TechFin?**

TechFin is a term coined by the Chinese Tech Giant Alibaba's founder Jack Ma in 2016 to describe Ant Financial, the financial services arm of Alibaba<sup>1</sup>. According to Ma, while FinTechs take the financial system and meliorate its technological infrastructure, TechFin invigorates the financial system boasting a technology-centric approach. A plain commentary for TechFin would be a technology company expanding its business into the financial industry.

### **The case of TechFins**

For an organization with a firm technological heritage, financial offerings may be an exploration of a use-case, while for a bank or a financial institution, finance is the foundation of its transactions and technology may be the recommendation for the assurance of earning the spot for the fourth digital revolution. With the advancement of technological solutions for financial inclusion, it makes sense for a tech-friendly user of a product to avail the techno-financial solutions, taking the service as a solution more than an offering. While most developed economies had a credit-card based cashless payment infrastructure, growing Asian economies like China, India and Indonesia embraced the adoption of digital payments<sup>2</sup>, along with a tremendous growth in social media usage. The emergence of BigTechs in the financial ecosystem may carry the word of ease and efficiency and may upgrade the experience of financial transactions for the better.

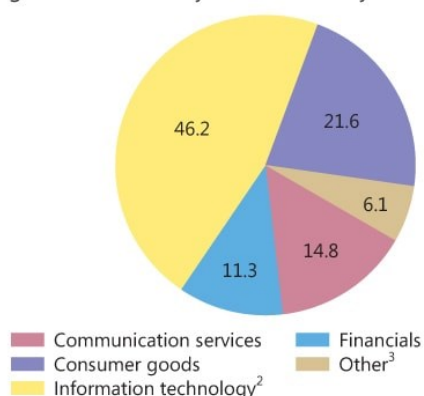
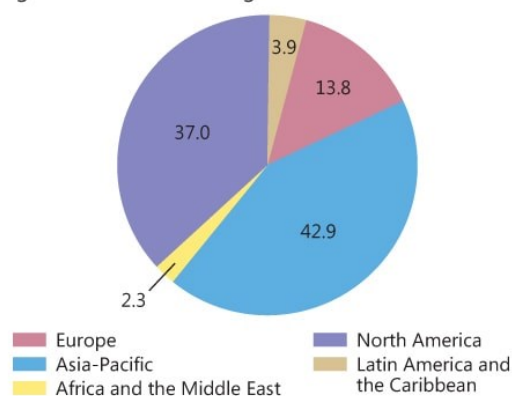
The extensive customer clientele of big techs' and the access to more data with a comparative headway in the technological infrastructure of data science & analysis and the possibility of the network externalities may call for innovation in the business model of the overall financial system including the estimation of credit values and worthiness. Such competition may call for trade-offs between factors like data protection, competition and regulatory environment, which will drag the ball into the markets that open itself for the possible incoming. In the constantly changing business environment, making developments in competitive measuring, monitoring or management strategies has become a pivotal task. Understanding the growth patterns of a competitor is equally essential, for which a thorough understanding of its products and services is required.

According to the Global Mobile Payment Users (2019) report by eMarketer<sup>3</sup>, China tops the highest mobile payment adoption rate, coupled with 81.1% of smartphone users adopting the technology. BigTechs like Apple, Facebook and Google entered the financial services market in North America and Europe through Apply Pay, Google Pay and Facebook Pay (and Calibra) respectively<sup>4</sup>. Howard Dowes (Chairman of the Royal Bank of Scotland), during a conference, even mentioned that BigTech is keen on FinTech (or we may better call it TechFin). The question is whether FinTechs can get clients before banks may get innovative. In a survey of more than 152,000 consumers across 29 countries, 54% of the global respondents entrusted more on at least one tech company (Apple, Amazon, Google or PayPal) with their finances more than the banks<sup>5</sup>. According to Sarah Kocianski, head of research at fintech consultancy 11: FS, the headache of getting, and maintaining, a banking license would likely be considered too big a risk for these companies. Instead, they will continue to operate with licensed partners.

## Financial services are a small part of big tech business

In per cent

Graph III.1

Big techs' revenues by sector of activity<sup>1</sup>Regional distribution of big techs' subsidiaries<sup>4</sup>

The sample includes Alibaba, Alphabet, Amazon, Apple, Baidu, Facebook, Grab, Kakao, Mercado Libre, Rakuten, Samsung and Tencent.

<sup>1</sup> Shares based on 2018 total revenues, where available, as provided by S&P Capital IQ; where not available, data for 2017. <sup>2</sup> Information technology can include some financial-related business. <sup>3</sup> Includes health care, real estate, utilities and industrials. <sup>4</sup> Shares are calculated on the number of subsidiaries as classified by S&P Capital IQ.

Sources: S&P Capital IQ; BIS calculations.

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### TechFin for India

With the unprecedented rise of data usage favored by one of the lowest data prices in the world, more of the Indians commenced exchanging data over the internet and gave rise to a boundless opportunity for the next wave of Information Technology to flourish in India. High economic growth values formulated the emergence of a new middle class of consumers with growing incomes and rising wealth.

- Millennials are better educated<sup>6</sup> (a factor tied to employment and financial well-being) and are better versed with the technological know-how and thus prefer to transact online.
- Mobile phone users:
  - There are more than **1 billion** mobile connections in India<sup>7</sup>, which is equivalent to **78%** of the total population.
  - The percentage of mobile broadband stands at 67%<sup>7</sup>.
  - More than half of the world's mobile subscribers live in the Asia Pacific region- mostly in China and India<sup>8</sup>.
  - 0.7 billion mobile internet users are projected by the year 2025<sup>9</sup>.
- Focus on the future of technology by the government: The latest budget can find a positive outlook for the government's digital initiatives, including, but not limited to:
  - 23.2% rise in the latest budget can be noticed for Digital India Programs, as compared to the last year<sup>10</sup>.
  - For Fiber to The Home (FTTH) through BharatNet to link 100,000 Gram Panchayats, the budget has allocated Rs.6,000 crores<sup>10</sup>.
  - Provision of Rs.8000 crores<sup>10</sup> over five years for Quantum Technologies and its applications.
  - New scheme to encourage domestic manufacturing of mobile phones, electronic equipment and semiconductor packaging (Rs.980 crores: 42% increase from last year, under 'Promotion of Electronics and IT HW Manufacturing (MSIPS, EDF and Manufacturing Clusters)').
- Tech workforce:
  - According to a report by the consulting firm Zinnov, India will account for 41% of the digital engineering services market by the year 2025 and accounts for \$10.6 billion of the digital engineering market share, which, on the other hand, is expected to grow 4X in the next five years<sup>11</sup>.
  - Software and Internet accounts for \$160 billion of the \$404 billion digital engineering spend and will eventually account for 46% of all digital engineering spends by 2025<sup>11</sup>.

- With the increasing hours of average internet usage, Indian internet users may find it easier to avail financial services via techno-functional means.
  - According to DataReportal, the number of internet users in India increased by 128 million (+23%) between 2019 and 2020; and now stands at more than 687 Million internet users in the country<sup>12</sup>.
  - According to Cisco's Annual Internet report, India's internet user base will be over 900 Million by 2023, accounting for 64% of the population. In India, devices and connections are growing faster (7 percent CAGR) than the population (1.0 percent CAGR)<sup>13</sup>.
  - India's e-commerce sector is growing at the fastest pace in the world, according to a report by the Competition Commission of India<sup>14</sup>.
- High social media usage and online purchase behavior may facilitate the sophistication of social credit analysis.
  - The number of social media users in India increased by 130 million (+48%) between April 2019 and January 2020<sup>12</sup>.
  - With around 400.0 million social media users<sup>12</sup>, India offers one of the largest audiences for platforms including:
    - Facebook: 260M
    - Instagram: 80M
    - Snapchat: 22.95M
    - WhatsApp: 400M
    - Twitter: 11.45M
    - LinkedIn: 62M
- Growing digital economy:
  - India can create up to \$1 trillion of economic value from the digital economy in 2025<sup>16</sup>.
  - According to a McKinsey report from 2019, India is the 2nd fastest digitizing economy in the world<sup>18</sup>.
  - Bengaluru is touted as the new Silicon Valley, powering India to becoming the 3rd largest startup hub in the world, according to a report by Nasscom-Zinnov (2019).

### **Case of Indonesia**

Indonesia, one of the fastest-growing economies in the world, with a growth rate of 5.2% in 2020 and a strong workforce among a population of 272 million in 2020, serves as a promising market for TechFin for both the BigTechs and local companies. The expanse of Indonesia's digital economy has led to the development of promising startups, which provides the backbone for establishing the TechFin market in Indonesia<sup>19</sup>. GO-JEK is a motorcycle-based ride sharing app established in 2010, which now offers logistics and food delivery support as well. All these services require a seamless digital payment system, which was initially provided by the BigTech's systems. However, with time, Go-JEK has introduced its mobile payments feature; hence, itself is venturing into the TechFin market.

The rise of E-Commerce in Indonesia has expanded the market requirement for TechFin-based applications. Indonesia's E-Commerce industry, in 2017, roped in USD 7.1 Billion in revenues, which is expected to grow to USD 16.475 Billion by 2022. Currently, 10% of Internet users in Indonesia use e-Commerce stores to buy products and this number is constantly increasing<sup>19</sup>. The case of Tokopedia, Indonesia's largest e-commerce company, depicts the rapidly growing e-commerce market in Indonesia. Tokopedia has established its services in 93% of the land area, catering to a vast majority of customers. Bukalapak, another major e-Commerce player, plans to expand into the rural areas of Indonesia. Traveloka, a travel and flight booking website has been receiving a lot of traction since the boom of tourism in Indonesia. Hence, having essential and seamless TechFin infrastructure has become a necessity in Indonesia, in order to support the fast and secure payments.

The political inclination of Indonesia towards a digital economy makes the conditions for investment in the TechFin market favorable, with the 14th Economic Policy Package allowing foreign and domestic investors to invest in Indonesia. This paves the way for the expansion of BigTech firms in the Indonesian TechFin market. The decrease of tax for E-Commerce firms on online marketing, advertisements, deals and retail indirectly enhances the TechFin scenario by pressing for E-Commerce based investment. The policy package establishes improvements in liquidity in the market by introducing grants and funds for MSMEs, relaxed investment regulations and new funding methodologies like crowdfunding<sup>19</sup>. In 2017, Indonesia had 105 million internet users with an internet penetration rate of 39.7%, which has grown to 64% in 2020. The primary made for internet browsing is through mobile phones, with 23.7 percent of the population, which is 62.7 million citizens, accessing the internet through smartphones. With a strong smartphone user base, Indonesia has observed a massive shift in transactions from offline to online, with 28.1 million people buying products online in 2017.

This number is expected to grow to 43.9 million in 2022. With this amount of transactions online, firm and seamless technological support for payments is a necessity, hence paving the way for future startups in the TechFin industry.

The amount of digital transactions in Indonesia is the largest in south-east Asia and the fifth largest globally, amounting to USD 22.4 Billion in 2017. Predictions for 2022 indicate that this number will rise to a whopping USD 37.1 Billion. Although the payment industry is majorly dominated by FinTech players, payment services originating from Tech-based companies are gaining popularity. GrabPay from the ride-hailing company called Grab and T-Cash from Indonesia's largest Telcom operator Telkomsel provide two case studies on how the TechFin market is replacing the FinTech market in Indonesia.

### **Case of Brazil**

Brazil also serves as one of the fastest-growing economies in the world with a lot of payments moving online. Although Brazil is a relatively untapped market in both ICT and financial technology, trends indicate that Brazil will be the front-runner in the TechFin market soon. These trends can be attributed to the rise of ICT and digital infrastructure in Brazil. With a population of 209.5 million, Brazil's internet penetration is 60.9%, with a steady growth rate. About 85% of adults in Brazil have a mobile phone. Growth is predicted such that by 2025, Brazil will be among the five major smartphone markets with 200 million mobile connections<sup>20</sup>. Hence, providing an extensive market for online payments both for FinTech and TechFin firms.

Although Brazil has been underperforming in ICT, the relatively untapped market provides opportunities to improve competitiveness and call in for quick and efficient transitions in technology. Mobile telephony is the largest ICT subsector in Brazil, which has been experiencing a replacement in voice services with data services. In 2013, 74.4 percent of revenues in mobile telephony was roped in by voice services and 24.6 by data services, as compared to that of 2017, in which 38% was for mobile telephony and 62% for data services<sup>20</sup>. The improvement of data supporting infrastructure in Brazil provides the opportunity for extensive transfer of financial data using applications and hence, enhancing digital transactions in Brazil. Added to this, Brazil ensures efficiency in adapting to changes in mobile technology in terms of spectrum changes from 3G to 4G.

The political scenario in Brazil calls for quick digitalization and hence, prioritized some initiatives from the Brazilian Digital Strategy (e-Digital) which focuses on 5 broad aspects for the development of a digital economy<sup>21</sup>. The first includes accelerated 5G development and accelerated 4G implementation, in which local governments are providing tax incentives for wireless expansion to rural areas. The second includes expanding network connectivity by laying optical fibers and connecting 22000 urban and rural schools with broadband. This is to improve on the fact that Brazil is the fifth largest unconnected market in the world and the steps mentioned will let Brazil harness the complete potential Brazil has in establishing a digital economy<sup>21</sup>. With an accelerated increase in internet penetration, Brazil will benefit from the fresh market that has been created in the TechFin industry.

Along with physical infrastructure, trained human resource is also an essential component to build a digital economy. In 2016, only 21.6% of the Brazilian population was skilled for knowledge-based roles. To improve upon this condition, the third focus of Brazil's e-Digital is on talent, which aims at collaborations between educational institutions and the private sector to build a skilled workforce. A skilled workforce will call upon more foreign investments and hence acts as a growth driver for TechFin in Brazil. The FinTech industry in Brazil is extensive yet really scattered. Although there are 377 fintechs spread over 12 areas in Brazil, there is no single major player in the market owing to the scattered industry. This provides the opportunity for TechFin establishment in the country by BigTechs and hence, establishing a few major TechFin players. Added to this, law changes in Brazil have allowed for more competition and hence have proved to be proactive for tech-based startups in Brazil planning to venture into the TechFin market.

### **Conclusion**

With the potential of technological advancements in maintaining the economic growth of the emerging markets like India, Indonesia and Brazil, the fundamental aspects of digitization like social media usage, ease of owning a smartphone, digital payments and growth of e-commerce maintains an attractive ground for TechFins to emerge. With the advantage of being tech-first organizations, the focus of a solution-offering for TechFin firms makes a better business case while pushing the digital growth of an economy. Not only does it create a valuable ground for BigTechs to customize a solution but is also a significant market opportunity for the country-based startups to emerge.

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