

Policy idea

# Digital Branchless Banking: A Revolution Awaits

Discussion paper

A brief by



**Center for Innovation in Public Policy**

September 2021



## Digital Branchless Banking: A Revolution Awaits

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# Introduction

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The absence of innovation in India's banking system is being blamed as one of the causal factors holding up credit and, hence, slowing down the Indian economy's growth in recent years. Yet, away from the all-pervading negativity, the new digital banking licenses will not only change the way customers interact with banks but points towards a revolution that will redefine India's next-generation banking. For sure, most banks have started offering some or all of their services to the customers digitally—the great big leap that awaits is branchless banking.

By its very nature, digital banking does not require branches as the customer is acquired and serviced online. This fundamentally changes the incumbent business model of Indian banks. India's banking regulations have bank branches as their implementation focus; especially, targets relating to priority sector lending and urban-rural branch ratio are all branch based. Hence the natural inertia in dismantling the regulations to allow branchless banking or digital banks to come. Ushering in digital banks also poses a direct threat to the core of incumbent banks where the largest cost is the branch and its employees.

This chicken-and-egg anomaly has remained unresolved for long as the objective of banking regulations was to provide credit in deprived areas, which in turn was based on building bank branches in the first place. How is the core purpose of regulations to be reconciled with the new-world credit/banking services that are no longer dependent on having a branch? This discussion paper considers the issues around digital banking, including:

How will branchless banking work?

How should traditional banks and digital banks be provided a level playing field ?

What should be the interim steps to bring parity between digital banking and branch banking? Should a cess be levied on digital banks to compensate incumbents for their sunk investments in branches?

Our objective is to share the impact and experience of current digital banks globally, and solicit comments and opinions from Indian bankers and



experts on this issue so that India does not lose out on the opportunity to make its banks and, indeed, the economy, digitally more competitive. As of now, the cost of credit due to higher establishment costs is ultimately being directly borne by borrowers and affecting the overall competitiveness of the Indian economy. High establishment costs affect the rates that a bank can offer on deposits, which disincentivize savings and make certain traditional banks non-competitive even in urban or digitally-dense areas. These are all important issues that need to be discussed and debated; hence this discussion paper.

At the end of the paper is a list of questions. Please share your thoughts, opinion, ideas, and advice there.

This shift of both flows is possible in the current digital world. All it requires is a **reimagination of incentives**. The reimagination has to envisage the future flow of global transactions from the outsider's perspective, different from the past perspective of investment inflows. GIFT City has to let go of the obsession with merely attracting and capturing inflows into India. Anchoring and competing against the past has not resulted in success in the last 14 years. For any chance of future success, an international financial center has to think of itself as an enabler of global transactions and position itself to the international investor on a futuristic proposition.

## Current state of banking in India

India has been witnessing a decline in credit growth rate in the past decade, particularly since 2016. This situation reached a climax in March 2021 with YoY credit growth at 5% against 6.4% in March 2020. This fall can largely be attributed to the COVID-19 pandemic which led to a sharp decline in lending in all sectors except agriculture. In the previous year, credit growth was tepid until September 2020, finally picking up steam in October. According to the latest RBI estimates, credit growth is recovering with credit growth rate at 6% YoY in May 2021.

The pandemic also underlined the issues of access in financial services. Financial inclusion received a filip in India from 2014 onwards with the

## Introduction

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launch of the Pradhan Mantri Jan Dhan Yojana (PMJDY). It leveraged the existing BC agent network and significantly changed banking demographics in the country, sharply narrowing gender gaps in financial access. According to the World Bank's Global Findex report (2017) 80% of Indian adults had a bank account (compared to 53% estimated in 2014) and 77% of Indian women-owned a bank account (against 43% in 2014). As of March 2021, 42 crore Jan Dhan accounts have been opened.

India has made considerable efforts in the realm of digital banking with BigTech leading the way. Players such as PayTM have over 350 million active users in India and transact as many 1.2 billion transactions each month. The COVID-19 pandemic also gave a push to digital payments in India. The RBI Annual Report notes the total digital transaction volume in 2020-21 stood at 4,371 crore, as against 3,412 crore in 2019-20, attesting to the resilience of the digital payment system in the face of the pandemic.

<https://techcrunch.com/2021/03/01/paytm-claims-top-spot-in-india-mobile-payments-market-with-1-2-billion-monthly-transactions/>



# Defining Digital

## What are digital banking licenses?

Digital banking is the digitization (or moving online) of traditional banking activities and programs services that were historically only available to customers when physically inside of a bank branch.

<https://www.temenos.com/news/2019/12/19/what-is-digital-banking/>

It is the automation and digitization of traditional banking services and operations, replacing the physical bank with an online presence and eliminating the consumer’s need to visit a branch. Digital banking enables a bank’s customers to access banking products and services via an electronic/online platform. <https://tavaga.com/blog/digital-banking-and-its-foray-into-the-banking-sector/>

Because of the ubiquitous, frequent lockdowns, and social distancing to control COVID-19’s spread, digitization of services has accelerated among banks world-wide. When customers stayed home, banks closed or converted branches, redirecting their resources and customers to remote and digital channels. As it became clear that an economic crisis loomed as well, banks promptly took steps to improve their financial position. To help financially stressed customers weather the crisis, banks offered them loan deferrals or moratoriums—all in the span of a few weeks. <https://web-assets.bcg.com/89/ee/054f41d848869dd5e4bb86a82e3e/bcg-global-retail-banking-2021-the-front-to-back-digital-retail-bank-jan-2021.pdf>

### LIMITATIONS DUE TO COVID-19

60%  
of banks closed or shortened opening hours of branches

11%  
of banks turned-off selected methods of account opening

6%  
of banks suspended account openings or limited access to products for new clients

### NEW FUNCTIONS IMPLEMENTED DUE TO COVID-19

41%  
of banks increased **limit of contactless payments**

34%  
of banks implemented **fully digital processes** (product opening etc.)

25%  
of banks introduced **appointment bookings in branches**

24%  
of banks enabled **donations to NGOs, social actions etc.**

23%  
of banks introduced **digital ID&V methods**

18%  
of banks launched **contactless payment methods**

1. Survey conducted in June-August 2020 in 'mystery shopper' assessment on a sample of 256 banks participating in 2020 edition.  
5 | Copyright © 2020 Deloitte Central Europe. All rights reserved.



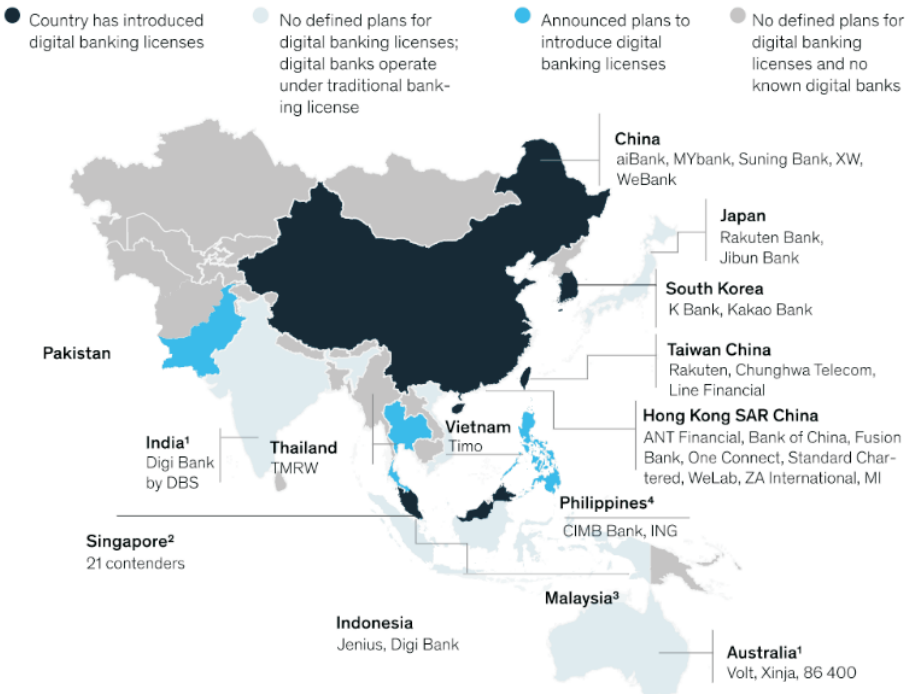
<https://www2.deloitte.com/content/dam/Deloitte/ce/Documents/financial-services/ce-digital-banking-maturity-2020.pdf>

# Defining Digital

Digital banking adoption is growing across Southeast Asia, driven by evolving customer expectations and increased digital penetration—the COVID-19 pandemic has accelerated this trend. These drivers will see Southeast Asia’s digital banking opportunity expanding significantly in the coming years, extending a trend which has seen over 200 new digital banks established globally over the previous decade. Since 2015, the number of digital banks globally has grown by 190%, supported by significant investment and positively evolving regulation.

<https://www.oecd.org/daf/competition/digital-disruption-in-banking-and-its-impact-on-competition-2020.pdf>

## Mapping the growth of digital banking in Asia<sup>1</sup>





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## Digital Banking: Opportunities and Costs

Digital banking offers several benefits to consumers and business owners:

**Access:** With both desktop and mobile access to your bank accounts, digital banking means customers are not beholden to bank hours to manage their finances.

**Better rates and lower fees:** With online banks driving fees down, customer choices go beyond local brick-and-mortar financial institutions. For example, it's easy to compare rates and fee structures to find the best bank for your needs.

**Equity:** Upstart online banks level the banking access playing field by reaching unbanked and underbanked communities that rely heavily on mobile phones but may not have access to physical bank branches.

[\(https://www.forbes.com/advisor/banking/what-is-digital-banking/\)](https://www.forbes.com/advisor/banking/what-is-digital-banking/)

# Digital Banking in India

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In today's world, retail financial services change at digital pace keeping pace with consumer needs. Innovative startups are contributing to a rapid change in how retail financial services are delivered to consumers. Traditional banks have to take notice and align their functioning and service propositions to the unfolding reality. These existing banks face a huge risk in terms of becoming increasingly irrelevant to the existing and evolving consumer base. While the periphery of banking especially the payment transactions has changed completely the core of banking—deposit taking and lending—is still surrounded by a regulatory moat of protection and resists change.

## Traditional vs New

An obvious conflict exists between traditional banks and digital banks due to the branchless business model of the latter. While traditional banks can and do offer digital banking they are still encumbered by the cost of branches. This has prevented the entry of digital banks in India.

Traditional banks, especially private banks, have developed a comprehensive ecosystem of digital banking products and services. But pure-play digital banks continue to be barred in India despite offering newer and better technology; lower operational costs and capital expenditures per customer; and more affordable, user-friendly services to underserved customers than their brick-and-mortar counterparts.

Digital banking will advance financial inclusion. Digital banks will stimulate the modernization of the banking sector. Digital banking licenses would encourage competition and the entry of new players into the sector, ones not encumbered with bad loans or NPAs. All this would improve the overall quality of banking service, provide access to more sectors, and get differentiated lenders to provide banking services.

These new promoters include a large variety of NBFCs, fintech players, telecom companies, and wallet companies, which offer banking facilities. Many of these players offer these services with an added layer of technology through an interactive mobile or web application—these result in multiple



digital banking processes and online savings and investment services. Fintech startups want to offer savings and lending, and aspire to become horizontal players that offer all banking services digitally.

Some large fintech players are also expanding into complementary services. They usually start off as digital platforms offering one service like CRED offers on credit card payment, PolicyBazar sells or helps you buy insurance policies. PayTM started off with offering payment services; it is now a payment bank and digital wallet, offers bill payments, and even sells insurance—but is not an universal bank. The obvious ambition of all these Fintechs is to finally access the low cost depositor base and leverage those funds for growth.

## Financial Inclusion and Digital Banking

A large number of startups and fintech players offer multiple banking-related services ranging from offering payment services, investments and even insurance.

Due to high establishment and maintenance costs, traditional banks do not prefer to expand branches in rural far-off areas. Fintechs on the other hand do not have such scalability difficulties as their expansion is based on telecom networks and smartphones. The rapid expansion of fourth generation networks and falling prices of smartphones will ensure even rural households have at least one smartphone in each family.

Hence, unbanked rural areas are likely to get digital bank services easily rather than branch-based traditional banking services. Digital banks with technological expertise can reach rural locations through mobile phones whose penetration is growing in rural areas too. Several wallet companies already have a customer base at places where normal banks do not exist; it would be possible for them to provide banking services to the unserved.

It was to cater to the unbanked sections that the RBI launched payment banks but, because of the many restrictions, they have been hobbled—in their own growth and in their ability to give credit.

# Digital Banking in India

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## Post Pandemic digital

The pandemic has not only changed the way a customer engages with banks but it has also brought about a behavioral shift in consumer payments, as can be seen from recent massive rise in UPI transactions. Services such as WhatsApp banking, Missed Call banking, and chatbots have improved the accessibility of banking services. Digital banking would encourage people to reduce their dependence on physical banking and offline transaction modes. Digital or contactless banking, which was an evolving concept until recently, has seen large acceptance and adoption beyond the urban regions and digitally literate customers in recent times. The Open Banking ecosystem enables collaboration between banks and technology creates true digital solutions for customers down to the last mile. If SFBs shift to digital banking, customers will benefit from accessible banking services.



# Branchless Banking

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## The Situation Today

In many countries around the world, bank branches are closing.<sup>6</sup> More than 3,000 branches have been shut down, on a net basis, in the United States since 2010,<sup>7</sup> while in the United Kingdom, more than one-quarter were closed between 2012 and 2017.<sup>8</sup> These actions have been in response to cost-cutting pressures and customers' shift to digital channels for routine transactions, such as bill payments or person to person (P2P) transfers.<sup>9</sup>

As a result, branch density—the average number of bank branches per 100,000 adults—has declined in many countries. For instance, in Switzerland, branch density reduced from 54 branches in 2008 to 42.5 in 2016. In Norway, which is digitally more advanced than most countries,<sup>10</sup> branch density dropped from 11.7 branches in 2008 to 6.2 in 2016 (figure 4).<sup>11</sup>

As the pandemic devastates more countries, banks worldwide are encouraging the use of alternatives to in-person banking and branch visits. New digital products are being launched to aid this initiative and ensure uninterrupted banking services for customers. For instance, Singapore's DBS created a template for branchless banking after it had to evacuate 300 employees when one of them tested positive for the Coronavirus. The bank has now digitized 11 financing processes, such as instant interbank fund transfers for business accounts. Another example involves India's ICICI Bank launching ICICISStack, a set of nearly 500 digital banking services and APIs

[\[https://www2.deloitte.com/us/en/insights/industry/financial-services/bank-branch-transformation-digital-banking.html\]](https://www2.deloitte.com/us/en/insights/industry/financial-services/bank-branch-transformation-digital-banking.html)

When branchless banking enters the picture, everything from commercial rentals to human resources to even office furniture becomes obsolete. These low set-up costs allow banks to reach customers quickly, serving their needs faster. Overheads are also reduced for both banks and customers—whether it is the time and wages lost by a customer having to cycle to their nearest branch, to the cost of paperwork and processing units by the bank. The benefits of this reduction of expenditure are passed on to the customer. Banks are able to redirect funds formerly allocated to obsolete processes and facilities to optimising modern processes, to expand the range of services offered and to build more resilient systems for their customers.

# Branchless Banking

<https://www.forbesindia.com/blog/finance/banking-2021-without-branches-or-borders/>

## Are branches still relevant?

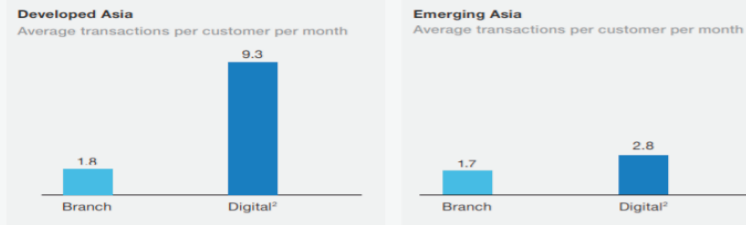
Physical branches have been the traditional customer engagement channel, but there is a clear shift in Asia towards digital channels for daily transactions. Bank branches now account for only 12 to 21 percent of monthly transactions (Exhibit 1). Customers prefer digital platforms for simple, routine transactions such as checking their balance, peer-to-peer transfers, or bill payments. Overall customer engagement has grown from an average of 12.7 to 14.9 monthly transactions in Developed Asia, and from 6.0 to 8.1 in Emerging Asia, with increased smartphone usage driving growth in each case between 2014 and 2017.

For Asia's banks, this evaluation of branch networks needs to go beyond mere footprint costs. They might, instead, reimagine the role of the branch: for example, they could shift branches from purely transactional points to interaction hubs that meet customer needs for financial advice ; a more user-friendly design could help migrate more customers to bank-owned digital channels, allowing them to reorient their physical branches to offer more complex products and services (eg, investments).

Exhibit 1

Across Asia, digital transactions are 1.6 to 5 times as frequent as branch transactions.

### Channel usage frequency<sup>1</sup>



Branch transactions account for only 12% and 21% of total monthly transactions in Developed Asia and Emerging Asia respectively

Note: N = Developed Asia (4,562, 2014; 4,540, 2017); Emerging Asia (10,467, 2014; 12,532, 2017).

<sup>1</sup> Refers to monthly usage of ATMs, branch/call centers, internet banking, and smartphone banking

<sup>2</sup> Includes internet and smartphone transactions

Source: McKinsey Asia Personal Financial Services Survey 2017

<https://www.mckinsey.com/-/media/McKinsey/Industries/Financial%20Services/Our%20Insights/Reaching%20Asias%20digital%20banking%20customers/Asias-digital-banking-race-WEB-FINAL.pdf>



## A USO like fee could be levied for digital banks

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To ensure wide and equitable access to digital banking, the USO (universal service obligation) model, similar to the one used to provide telecom services in India's underserved areas—the Mobile Infrastructure Scheme—might be proposed. According to this scheme an infrastructure provider was responsible to set up, operate and maintain infrastructure sites in the specified cluster(s) for a specified period. The services included land, tower, electrical connection, power backup, boundary wall, and security cabin. These services were shared by 3 Universal Service Providers who serviced rural areas. The USPs were required to maintain other components essential for delivering services.

A similar approach may be developed in the formulation of a new Universal Banking Obligation to meet the government's goal of financial inclusion. Today, Each rural branch requires about 10 lakh and takes 2-3 years to break even. Moreover, Regional Rural Banks are also not able to grow. A NABARD report says RRBs reported a loss of Rs 2206 crore in FY 2019. A report by Firstpost mentions that opening a branch in a rural area means adding an expense of 1.5 lakh every month. To meet this expense, they require at least 8,000 accounts. However this volume of transactions is often not met in rural branches.

The government must look at alternative ways of servicing rural areas. As we have already established, the cost of opening branches in rural and urban areas is relatively high compared with their usage today. Most users are shifting to digital modes of banking, particularly with the Digital India initiatives and the rise of payment banks like PayTM. A UBO for digital banks might prove to be useful: similar to the Mobile Infrastructure Scheme, banking infrastructure providers can develop branches in rural areas that are shared by multiple banks to reduce costs.

A UBO fund can be created to subsidise digital banks that are willing to open branches in rural areas. The need for shifting to digital channels becomes even more evident when we consider that mobile transactions have increased from 29% in 2018-19 to 76% in 2020-21.

# A USO like fee could be levied for digital banks

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Also to find out the links of the USO model for the telecom sector, how it worked, the basis for the USO fee levy, and how the USO fund were accessed:

<https://assets.kpmg/content/dam/kpmg/in/pdf/2017/08/Accelerating-growth.pdf>

<https://dot.gov.in/sites/default/files/Annual%20Report%202020-21%20English%20Version.pdf>

[https://traf.gov.in/sites/default/files/asean/Presentation/Pankaj\\_Kumar\\_S7.pdf](https://traf.gov.in/sites/default/files/asean/Presentation/Pankaj_Kumar_S7.pdf)

[https://www.researchgate.net/publication/228684583\\_India's\\_Universal\\_Service\\_Obligation\\_for\\_Rural\\_Telecommunications\\_Issues\\_of\\_Design\\_and\\_Implementation](https://www.researchgate.net/publication/228684583_India's_Universal_Service_Obligation_for_Rural_Telecommunications_Issues_of_Design_and_Implementation)

## Why was the USO levied?

The USO Fund was established with the fundamental objective of providing access to "base" tele services to people in the rural and remote areas at affordable and reasonable prices. Subsequently the scope was widened to provide subsidy support for enabling access to all types of telecom services including mobile services, broadband connectivity, and creation of infrastructure like OFC in mind and remote areas.

The implementation of the USO-related activities is carried out by the "eligible operator", the entities having a valid license or registration or authorization from the Union government's Department of Telecommunication for providing telecom services or infrastructure or any other entities as specified by the government from time to time.

Expansion of telecom services to remote and rural areas in the country involves large capital investments. Low returns on these investments (low potential revenues, low commercial activity, etc.) make expansion in these areas less profitable for the TSPs and act as a bottleneck for investments by service providers. Thus the need for change in the market mechanism to enable TSPs bridge the rural-urban divide. This led to the introduction of USOF in April 2002, calculated as a percentage of the revenue collected by TSP's under various licenses, aimed at providing connectivity to the over 62,44,317 untapped villages



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in India. License fee is collected at 8 percent of AGR (aof TSP's which includes 5 percent of USOF as Universal Service Levy (USL).

The government intends to use USOF for various initiatives such as providing network infrastructure and connectivity to remote parts of the country. Multiple schemes like BharatNet initiative, which is part of "Digital India" campaign, would eventually help in carrying out full-fledged roll out of telecom services in rural areas and connecting the unconnected

### **USO should not be an overburden**

GSMA, in their "mobile economy report," highlighted that the USO levy of 5 per cent in India against 2 per cent in Colombia and Pakistan, and 1 per cent levy in Brazil, financially over-burdens TSPs in India. Also, as per DoT's annual report, the USOF accumulated has not been completely used. By 31 May 2021, INR 117,453 crore had been contributed to the USOF. Out of this, about 50% of the fund, INR 58,084 crore, remains unutilised. TRAI has recommended a speedier disbursement of funds as USO disbursements and ADC requirements are linked. TSPs suggest that the existing balance is sufficient to meet the requirements in the near future for providing connectivity to the unconnected areas. The report also suggests that the Indian government may explore adoption of a more participative approach, with the operators consulted when defining targets and levies. Further, TRAI also recommends that the government may consider reducing USOF from 5 per cent to 3 percent of annual revenue for all licenses, so that the license fee is effectively reduced to 6 per cent. TRAI has asked the DoT to consider its past recommendations so that TSPs can focus on providing good quality of service (QoS) to consumers at affordable prices. Further, the USO contribution from license fees might be phased out over a few years to reduce the cost burden on the industry.

# A USO like fee could be levied for digital banks

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## Current USO fund disbursement

The USO Fund is utilized exclusively for meeting the Universal Service Obligation. Universal Service Levy (USL) is collected from the service providers at a defined percentage of Adjusted Gross Revenue (AGR) as a component of Licence Fee. The collections of USL are credited to the Consolidated Fund of India and allocation of funds to USOF is through Parliamentary approval. The balances to the credit of the Fund does not lapse at the end of the financial year.

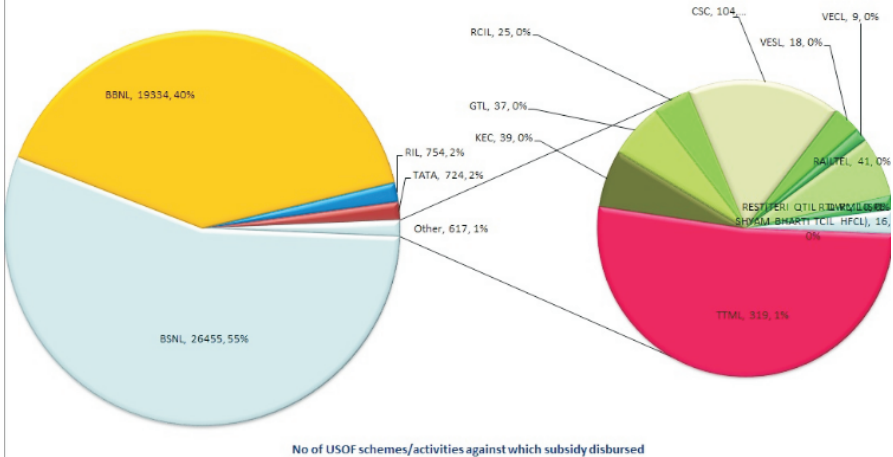
Disbursement of funds to the service providers is through a multi-layered reverse bidding process on the basis of least quoted subsidy. The Basic Service Operators (BSOs), Cellular Mobile Service Operators (CMSPs) and Universal Services Access Licensees (UASLs) of the concerned service area are eligible to participate in the bidding process. An independent agency has been appointed for arriving at the benchmarks, which serve as the Reserve Price for the bids. Based on a statistical sampling model, the benchmark exercise primarily involves five steps: 1) sampling of Secondary Switching Areas (SSAs) for data collection; 2) analysis of telecom data and identifying critical variables that influence cost and revenues; 3) deriving operating expenditure (OPEX) and revenue for all SSAs with reference to the identified variables; 4) validity checks and moderations; 5) projections for 7-year/5-year period and averaging of benchmark figures. While the data for different technologies is analyzed, the benchmark for the purpose of inviting bids is fixed on a technology neutral basis, taking into account the best techno-economic solution, except in the case of facilities that need to be provided using satellite technology or, in the case of the bids for OPEX for VPTs already installed, as part of the licensing universal services obligation by the Basic Service Operators, where the rates were given for the different technologies already in use.

<https://www.itu.int/ITU-D/treg/related-links/links-docs/USOF-India.pdf>

### Universal Service Providers wise share in Total Subsidy disbursed

#### Variation in Total USO Subsidy disbursed over the years (figure in crores)

BSNL BSNL RIL TATA TTMl KEC GTL RCIL CSC VESL VECL RAILTEL DWL REST(TER) QTL RIL RML ISPL SHYAM BHARTI TCIL HFCL



The cost of the branches, establishment, rentals, salary of employees in a branch has to be added. It is the second highest cost of the interest on capital cost.

The second highest cost that banks have to deal with is that of operation of branches. On an average, most bank branches in India, will have an area of 1200 sq ft with about 13 employees per branch. Thus, these costs are more or less fixed for banks.

We have based our calculations of operating expenses of branches on the financial statements of four major banks in India, namely SBI, PNB, HDFC and ICICI. The following are the major heads:

Heads	Yearly Expenditure	Monthly Expenditure
I. Payments to and provisions for employees	26017872.88	2168156.074
II. Rent, taxes and lighting	3118243.749	259853.6458
III. Printing and stationery	451542.586	37628.54884
IV. Advertisement and publicity	417781.0747	34815.08956
V. Depreciation on Bank's property	2226516.945	185543.0788

## A USO like fee could be levied for digital banks

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VI. Directors' fees, allowances and expenses	4942.267359	411.8556133
VII. Auditors' fees and expenses (including branch auditors' fees and expenses)	101037.3983	8419.783193
VIII. Law charges	181374.2453	15114.52044
IX. Postages, Telegrams, Tel etc.	520302.3096	43358.5258
X. Repairs and maintenance	1962484.519	163540.3766
XI. Insurance	2790301.73	232525.1442
XII. Other expenditure	15518204.9	1293183.742
<b>Total</b>	<b>53310604.61</b>	<b>4442550.384</b>

On average then, a single bank branch incurs a cost of over 44 lakhs every month. These costs can be largely minimised in case of digital banks which do not have a branch requirement.



## Appendix A

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### Questionnaire: Creating a level playing field for digital banks

Please use the Google form link below to answer the questions about how to create a level playing field and allow digital banks to come in.

<https://forms.gle/ouNiptec2XNE2mX77>

To ensure that there is a level playing field created between the traditional banks that include several government-owned banks and digital banks who will not have a branch.

- Q1. Should there be a cess levied on digital banks which can be used for compensating traditional banks for their investments in rural branches?
- Q2. What should be the basis of levying this cess ?
- Q3. What should be the basis for the payment of this cess to the traditional banks ?
- Q4. How should the Indian banking regulations be made branch independent in the future ?
- Q5. Should financial inclusion targets now be shifted to the number of banking services used instead of just opening bank accounts ?

## Appendix B

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Any other question that you would like to add to this debate that will help in resolving the policy conundrum on digital banking.

### Background Research

<https://www.mckinsey.com/~media/mckinsey/industries/financial%20services/our%20insights/joining%20the%20next%20generation%20of%20digital%20banks%20in%20asia/joining-the-next-generation-of-digital-banks-in-asia.pdf?shouldIndex=false>

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<https://www.oecd.org/daf/competition/digital-disruption-in-banking-and-its-impact-on-competition-2020.pdf>

<https://www.cgap.org/blog/some-countries-have-digital-bank-licenses-others-have-digital-banks>

<https://web-assets.bcg.com/89/ee/054f41d848869dd5e4bb86a82e3e/bcg-global-retail-banking-2021-the-front-to-back-digital-retail-bank-jan-2021.pdf>

<https://www.law.ox.ac.uk/business-law-blog/blog/2020/10/adapting-indias-regulatory-framework-digital-only-banks-case-reform>

<https://vidhilegalpolicy.in/wp-content/uploads/2020/09/Deconstructing-Digital-only-Banking-Model-A-Proposed-Policy-Roadmap-for-India-1.pdf>

## Pros and Cons

<https://www.livemint.com/industry/banking/pros-and-cons-of-banking-licences-for-big-businesses-11606064624498.html>

<https://www.investopedia.com/articles/pf/11/benefits-and-drawbacks-of-internet-banks.asp>

India and Digital Licenses: Why should they be issued?

<https://finezza.in/blog/should-india-consider-digital-only-bank-licenses/>

<https://www.financialexpress.com/opinion/neobanks-india-must-consider-the-introduction-of-digital-only-bank-licences/2094495/>

<https://www.thehindubusinessline.com/money-and-banking/time-ripe-for-rbi-to-look-at-fully-digital-sfb-licences-naveen-surya/article30074739.ece>

## Other Countries (South Korea, UK, Singapore, Hong Kong)

<https://www.aseanbriefing.com/news/singapore-issues-first-digital-banking-licenses-potential-for-regional-expansion/>

<https://www.trade.gov/market-intelligence/singapore-digital-bank-licenses>



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<https://openknowledge.worldbank.org/bitstream/handle/10986/34701/Digital-Banks-Lessons-from-Korea.pdf?sequence=1&isAllowed=y>

[https://www.linkedin.com/pulse/lessons-from-uk-what-can-we-expect-digital-banks-kuna-nallappan/?trk=read\\_related\\_article\\_card\\_title](https://www.linkedin.com/pulse/lessons-from-uk-what-can-we-expect-digital-banks-kuna-nallappan/?trk=read_related_article_card_title)

<https://www2.deloitte.com/uk/en/pages/financial-services/articles/from-dream-to-reality-obtaining-a-banking-licence.html>

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## Post Pandemic digital

The pandemic has not only changed the way a customer engages with banks but it has also brought about a behavioral shift in consumer payments, as can be seen from recent massive rise in UPI transactions. Services such as WhatsApp banking, Missed Call banking, and chatbots have improved the accessibility of banking services. Digital banking would encourage people to reduce their dependence on physical banking and offline transaction modes. Digital or contactless banking, which was an evolving concept until recently, has seen large acceptance and adoption beyond the urban regions and digitally literate customers in recent times. The Open Banking ecosystem enables collaboration between banks and technology creates true digital solutions for customers down to the last mile. If SFBs shift to digital banking, customers will benefit from accessible banking services.