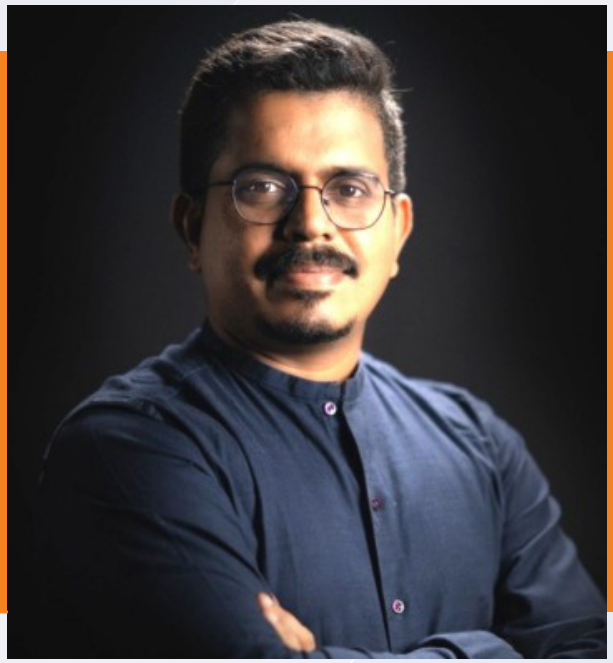
Leaders' Lens



In conversation with

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How would you describe the India Stack and the specific benefits that India Stack has brought about?

Sujith: The best way to describe India stack is as a collection of very simple LEGO blocks. India Stack comprises of eSign, Aadhaar, UPI, eKYC and others. Each of these, akin to a LEGO piece, solve one problem in the puzzle, which takes away friction in solving the problem of access. Whether it is access to banking, access to education, access to loans, or access to the market, each of these LEGO blocks solves for one aspect of access. The real value of each building block lies in their ability to solve every problem at a population scale. Not for ten users or one million users, a billion users. UPI's staggering 12 billion monthly transactions or FASTag's 80 million tags are a testament to this scale.

Second, each building block has a design paradigm, which is entirely different from the conventional platform-building thinking that the world has seen. Conventional platforms evolve from a smaller scale, gradually expanding upon what's proven effective. The scale is almost like a consequential execution of what works at a certain level. However, DPI (Digital Public Infrastructure) thinking uses a different design paradigm. It starts with what works at scale instead of scaling what works. This is crucial because then scale becomes a design input. It's not a consequential outcome of execution.

This scalability necessitates design that is effective across diverse needs, circumstances, and contexts. Hence, design features like minimalism, reusability, adaptability, lightweight, open specification-based, standards, and basic open source software that can solve only one thing is the other salient feature of an India Stack.

The third and most important aspect is that India Stack is not built as a solution. It is built as an infrastructure. There is a mindset shift from solution thinking to infrastructure. These building blocks are more like roads, not vehicles on the roads. Can each of us have a private road from our house to the SPJIMR campus? No, we need shared roads. Otherwise, everybody will be laying roads in their lifetime. Only when roads are built, it makes sense to create a Ferrari or a Maruti. Hence, solving for access is an infrastructure problem and solving for

the quality of goods and services is a solution platform thinking problem. Most platforms, like Amazon, have been thinking about solving for access and quality together and building platforms that probably do not scale to a billion people.

In essence, DPI thinking is to build public rail as infrastructure, not a solution, and the market will build solutions on top of this rail. Only if there are roads will somebody make a car, right?

Why do you think India became a pioneer in shaping the concept of Digital Public Goods?

Sujith: In the past decade, India's journey with DPI is not a tale of a singular achievement but a series of them. India did not do one DPI. It did several. The first phase included Aadhaar and eKYC, enabling the creation of 500 million bank accounts and Jio's telecom connections. This was possible due to the presence of an ID for verification that expedited the eKYC process, allowing for the swift opening of bank accounts and establishment of telecom connections. Consequently, this led to a significant increase in banking penetration in India, soaring from 18% to 85% in just nine years—a feat that might have taken another nation half a century.

So, what is exceptional about India's story? We didn't just stop at Aadhaar. That itself will take a lifetime for many economies to pull off. The country has repeatedly succeeded in implementing similar DPI initiatives, like UPI, which escalated from zero to 12 billion transactions monthly in six years. This level of diversity, volume, and scalability in successful deployment makes India a true pioneer of DPI.

While DPI as a concept isn't new with precedents like the internet, GPS, and GSM already in place. India's distinction lies in its ability to extend and replicate this concept beyond these global standards, thus unlocking substantial value and pioneering new-age DPIs. India's role in designing, developing, and implementing these new-age DPIs sets a global standard for others to follow. It is inclusive as it has reduced the cost of access for Aam Admi, equitable, promotes free competition, and fosters innovation at scale.

Sandboxes have nurture innovation by providing a controlled environment for testing new ideas. What is your view on the importance of sandboxes in fostering innovation?

Sujith: I believe it's a great idea. Especially in fintech, a lot of regulatory cholesterol tends to stifle innovation. This sector is constantly evolving with new developments such as novel payment methods, financial products, and concepts like blended and embedded finance. As a result, there's a frequent introduction of new regulations aimed at protecting consumers and the financial system. These regulations present a considerable challenge for start-ups trying to navigate these rules while innovating. The regulations, often vaguely worded, leave a lot of room for interpretation.

Providing a controlled sandbox environment allows start-ups to translate their understanding of regulations into business process flow, immediately test compliance, and fine-tune their products based on the feedback prior to market launch. This approach significantly reduces the risk of regulatory backlash for these start-ups. Thus, enabling them to focus on market development, product enhancement, and finding the right product-market fit.

Therefore, I believe regulatory sandboxes are essential, particularly in sectors heavily governed by regulations, such as financial services. In fact, there should be a dedicated regulatory sandbox for each category of financial service. Furthermore, there should be sandboxes that are interoperable facilitating integrated testing across various financial sectors like finance and insurance on a unified consumer space. It's a vital infrastructure for fostering innovation while ensuring that the inherent uncertainty tied to regulatory compliance doesn't dampen the spirit of innovation.

The Indian Government played an enabler role in building the India Stack. Likewise, do you think the Indian Government or regulators should be actively setting up sandboxes? Or is it better to have private sector entities lead the development of sandboxes?

Sujith: Sectors subject to extensive regulation, such as financial services or healthcare should have a sandbox. Regulators should take a central role in setting up the sandbox as an infrastructure, defining its contents and operational scope. They should be the only ones building an instance of the deployable sandbox since they are the authors of the regulations. Thus, when the testing is done, they will know whether the product conforms to the regulations. However, once deployed, optimizing their reach and distribution becomes a matter of execution detail and can be enabled by other parties, maybe through empanelled services. However, regulator is an essential stakeholder in unlocking the regulatory sandboxes. Having a regulator or a regulator-authorized keeper of that sandbox would be the model to build trust. This prevents scenarios where a sandbox, constructed based on incorrect interpretations of regulations, leads start-ups to inadvertently breach compliance standards.

You have mentioned financial services and healthcare sectors should have regulatory sandboxes. Which other sectors should be actively encouraged to participate in sandboxes?

Sujith: I can think of regulatory sandboxes in an area like urban mobility or transportation. For instance, consider the decision-making process regarding bike taxis in Indian states, typically a binary decision of complete ban or full permission. However, there's potential for a more calibrated approach allowing bike taxis under specific conditions that address safety, risk, fraud, among other concerns. This introduces a spectrum of policy options beyond the all-or-nothing approach, prompting the question: could we utilize sandboxes to explore and evaluate these policies? Hence, benefits of regulatory sandboxes extend beyond serving market needs; they can also be instrumental for policymakers to develop, test, and gather data on the implementation and impact of policies.

Consider another example of Delhi's poor air quality. To address the issue, a policy might mandate that only EV (Electric Vehicle) pickup trucks should be allowed into Central Delhi for two months during the winter. Implementing such a policy poses considerable challenges, including enforcement and educating drivers about new regulations. However, a policy sandbox could provide a platform for digital services like ride-hailing and logistics to test these policies, gather direct feedback, and adapt accordingly. Thus, transforming the policy into code readily implementable by digital platforms. So this is another use case of sandboxes that allows dynamic policy-making, based on specific circumstances, one that regulators can test and market players can give feedback, adapt, and test, etc.

The article covers the regulatory sandbox, which is probably generation one of the sandbox evolution. There is a generation two that I can think of, which is for enabling dynamic policy formulation, a novel concept, not yet widely considered. My work at Beckn Protocol allows for policy as a code. I can set up a Beckn-enabled policy sandbox that can test policies like temporary geo-fence that only permits EV pickup trucks for certain activities, can be tested and refined. That's the next generation and we're still scratching the surface with regulatory sandboxes.

What can the regulators do to ensure that the knowledge and insights gained from sandbox experiments are shared with the broader industry to promote best practices?

Sujith: Consider any sector with an archaic set of policies and rules. However, because of the regulatory sandbox, it could consolidate and simplify those rules over the next 3-4 years and execute them less ambiguously. The industry can showcase its journey of regulatory transformation as

a case study for others, illustrating a systematic method of policy consolidation, critical review, and adjustment based on insights gained from the sandbox testing.

That is why the sandbox go both ways. It's not solely for fintech companies to benefit and raise funding. It is also for regulators to learn, consolidate and improve their regulations, making them more effective while reducing the regulatory footprint. This learning should be a shared resource, benefiting not just one industry but all sectors. The sandbox itself is not an outcome. Sandbox should lead to a positive transformation of the regulatory landscape of a country. Through shared experiences and knowledge about effective regulatory practices, India can evolve into a very minimally regulated, highly effective functioning market. Therefore spurring innovation, reducing the cost of compliance, and reducing the cost of enforcement by regulators, fostering further innovation while ensuring market safety.

Do you see any downsides to having Sandboxes?

Sujith: The downside is how well-implemented the sandboxes are. While theoretically, sandbox is a powerful tool, its practical impact hinges on user-friendly and intuitive deployment. So, all the friction and usage around it has to be highly streamlined and kept simple. Hence, the implementation effectiveness is where I see much downside. But otherwise, I think sandbox, if done well, has no downside. What is the purpose of regulation? Regulation is a public announcement of a policy. If everybody has to be aware of the policy, it has to be transparent, and everybody should recognize the importance of regulation and implement it as per the law. If that is what sandbox intends to solve, we should always have a sandbox. However, every implementation of the sandbox cannot be done right.

What are the key challenges and opportunities associated with adopting India Stack, Digital Public Goods, and Sandboxes in fostering a culture of innovation? How can these challenges be addressed to maximize their impact?

Sujith: Consider this analogy. Before the first car was built, everyone was accustomed to horse-drawn carriages or horseback riding for travel. Suddenly, this peculiar new contraption appeared on the streets, lighting up fuel oil. People would have been anxious and wondered about its safety given the combustible nature of its fuel.

So, the first challenge I'm trying to bring forth is that every change can be intimidating Every innovation, like DPIs, introduces a shift in the status quo, which can be unsettling. Therefore, the biggest challenge is to help people recognize how this change will help them unlock the larger good. For example, before UPI, banks estimated that the entire payments market in India was about 170-200 million transactions a month. Then UPI was introduced. Banks were reluctant to adopt it because a new set of systems and protocols had to be built. However, once a few new challengers took the bet, suddenly we realized that the market is not 170 or 200 million transactions a month. It is now 12 billion transactions a month and may go up to 30 billion a month.

DPIs, therefore, unlock the market and create market expansion, which is not apparent initially. However, thanks to UPI and other DPI innovations in India, there is a realization and recognition that DPI could be a game changer. For example, ONDC could be a game changer. In the meantime, market players find it challenging to adapt to the new paradigm and try to protect the investments in the old paradigm. The resistance often stems from a reluctance to abandon the familiar and a fear of losing out in the process. However, future disruptions are inevitable, not embracing change might lead to missed opportunities. So the problem, therefore, is the mindset for change.

The second challenge with the DPI is that some DPIs take time to show results. For example, 50 years ago, people did not know how to build a business model around internet. Until somebody decided to sell a book online, which transformed the analogue industry. Therefore, some of these scale may look glacial but you have to be patient. However, in the current world where chat GPT gets 200 million users in two months, people are not patient. Those who commit to innovation, in the long run can ultimately position themselves as leaders in significant market transformations similar to the success stories of platforms such as Google Pay or PhonePe.

The third broad risk is the ability to imagine new possibilities with DPIs. The idea and talent density that should come into the space. With DPIs, the scope for innovation is vast, as seen with the evolution of UPI from a simple payment protocol to a platform supporting various financial services like investment planning, SIPs, offline UPI and much more. People are benefiting from innovation. Hence, how do you imagine the world differently when the marginal cost of access has come down to zero? How do you reimagine a business model? Only a few people have this ability to think out-of-the-box. That's why we have very few innovators and many followers. Hence, an idea-talent density issue always exists in making the new paradigm flourish.

In summary, the three challenges are mind-set for change, willingness to play the long game, and the ability to imagine faster than anybody with the new paradigm. These three are the potential barriers to fully realize the transformative potential of DPIs.

Where do you see India in 2030 in terms of Digital Public Goods, India Stack and Start-up ecosystem?

Sujith: I was air-dropped into the Aadhaar project in 2010, not knowing what the Aadhaar project was. But I understood the DPI way of thinking by looking at Aadhaar from close quarters. At that time, I knew this country would be very different if Nandan (Nandan Nilekani) could pull off his vision. Aadhaar represented more than just a system or infrastructure; it was an approach that was quite novel. Although the idea seemed promising, its success was uncertain. However, if successful, I can't even imagine the future. I'm recollecting that sentiment now. It was a similar sentiment that I currently have.

With milestones like Aadhaar, UPI, now working on Beckn, and more in the pipeline, India is on the brink of monumental changes. I don't know where India will be, but India will become a real- time digitally savvy economy at the grass-root level. The potential impact of leveraging this progress to amplify our economy along with AI, probably creating productivity boosters, is beyond my imagination. There could be new jobs that don't even exist now. It's just one example. Economically speaking, as the transaction cost decreases, along with the costs associated with trust, coordination, and scaling, the flow of capital, goods, and services will be so high that I can't even imagine what that world will be like with such an unhindered flow of value.

In 2001, when I first got access to ATMs, there were only five ATMs in a big city like Chennai. And on a Saturday, if you go to any ATM there would be a one-and-a-half kilometre queue. From there to an ATM on every corner to never visiting an ATM in the last year. If we extrapolate these transformative cycles across all facets of Indian economy and project them for next 10 -15 cycles, we can start figuring out what the future of India would look like.