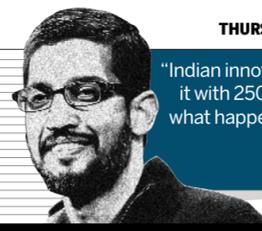


WILL INDIA MAKE IT?

2016



"Indian innovation will pick up as there is a market for it with 250mn Indians already on the net — think of what happens to this when another billion come on"

SUNDAR PICHAI, CEO, Google Inc

FROM JUGAAD TO INNOVATION

The start-ups, the unicorns... the result of a transforming India as well as what will transform India

As the year ends, and begins, rather than the macros which are both good and bad, focus on a more fundamental change which is both the result of a changing India and will also transform India as never before.

Over the years, many top MNCs have set up R&D centres in India, doing cutting edge work. GE comes to mind immediately with its 4,500 people in Bangalore and the work being done to re-engineer medical equipment and lower costs to 30-40%; there is the work on machine-to-machine feedback which allows a 'digital twin'—on a computer—to mimic, and simulate, what's happening on the real-life machine so as to know the best time to schedule maintenance, there's the 'brilliant factory' in Pune which incorporates this...

IBM and Accenture have large work forces in India and, as compared to 10,000 people in its Bay Area headquarters, Google has 1,500 people here already. On his first visit to India as its new chief, Sundar Pichai—who announced a plan to train 2 million Android developers over the next 3 years in India—talked of how innovation was coming of age now that there was a big market in India; it has already surpassed the US in terms of the number of internet users and, in 2016, will beat it in Android handset sales.

Market + innovation, that's the feedback loop you are going to hear of continuously over the next few years. With a huge market opened up, thanks to 250 million Indians being on the internet—and a billion more yet to come on!—as Pichai pointed out, there is finally a market to spur innovation.

It is not just MNCs doing cutting edge work here, it is now Indian innovators doing work for Indian firms for an Indian market. Aadhaar and the NPCL—both government programmes, incidentally—have potentially changed the dynamics of the way money/subsidies will be transferred and are world-class in their ambition and delivery; as Nandan Nilekani argues in his page-1 piece today, the dynamics of various industries in the financial sector will change as a result of what he calls the 'India stack'.

We are focussed on the unicorns like Flipkart and Paytm—8 of the world's 140



Illustration: SHYAM



SUNIL JAIN

billion-dollar firms being in India says a lot about the ecosystem being developed—but India now has the world's third-largest number of start-ups, with \$5 billion pumped into them this year. Think of Hike messenger which is more than just a copy-cat version of WhatsApp or Team Indus which is working with ex-Isro scientists to land an unmanned vehicle on the moon.

Or of Rohan Parikh, who's struck out on his own having used innovative solutions like 'radiant cooling' to lower Infosys's energy bill by 30% in its Hyderabad campus—with 40% of the world's energy used in buildings and 40% of that in cooling, his solution can potentially cut energy usage by 5%; and the payback period is negative since it is cheaper to construct buildings Rohan's way.

But, won't the political class stop this as it has stifled India so often in the past? It will, and it won't—the political class has the most to lose from Aadhaar going mainstream as the subsidy loot will stop, but it went ahead with it. The PM talking of Swachh Bharat sounds hypocritical, but when lakhs of geo-tagged pictures are posted online, that forces the political class to fix things, pronto. Rohit Sabher-

wal, formerly of CMIE, has a toilet app laid upon Google Maps that allows users to give feedback on each public-use toilet in a state—that will raise quite a stink if left unaddressed, won't it?

Be wary of government because free markets are what drive innovation, and even the BJP is anti-market in many ways. But in a globalised economy, bad policies can't last for long—that's why the FM quickly rolled back his bad MAT-tax on FIs; they were walking away if he didn't. Two, when the middle class grows to a certain size, as it is in India, that puts a pressure on the politicians to fix governance. The size of the markets will bring in players like Foxconn to produce mobiles here, for instance, and that, in turn, will lead to other changes—look at how Suzuki changed India's manufacturing paradigm.

Keep in mind, India's telecom revolution, driven by the size of the market and telco innovation in terms of pricing models, has witnessed the best and worst of government policy, but two decades later, 60% of Indians are connected, and a fifth are on the internet.

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Big strides in software products

For some months now, electronics has edged out gold, machinery and pearls to become India's second-largest category of imports (after oil). Our aerospace and defence imports are also growing. We love buying all kinds of gizmos, big and small, from the West. Because of this, aerospace, defence and electronics imports are ticking time-bombs. Electronics alone will become double our oil imports in five years. The big policy question is whether we can develop viable domestic product companies in these sectors without resorting to protectionism. The short answer is: Yes!



SHARAD SHARMA



VISHNU DUSAD

The reason for this optimism is software products. In this area, we are holding our own. India's software product industry is growing at a healthy clip. iSPIRT's iSPIX (Indian Software Product Industry Index) grew by 26.6% on an annualised basis in 2015. And 80% of this growth has come from companies focussed on global markets. This is fuelled by companies like Druva, Freshdesk, Capillary and Rategain. Each one of them is either a global leader or the primary challenger in its respective category. There is also a long list of promising companies who are replicating the success in newer categories. Team Indus is attacking aerospace. Forus Health is changing preventative blindness testing across the world. Julia, an open-source language out of Bangalore and MIT, is reshaping how IOT will happen. Savari is already a top-3 player worldwide in self-driving cars. All these are new names for most people. In the glare of the Bollywood-ish publicity of our e-commerce companies, we are missing the real revolution.

Yes, like any nascent revolution, this is fragile. In fact, we recently dodged a bullet. In the run-up to prime minister Narendra Modi's recent US trip, the Indian Patent Office hurriedly issued guidelines on computer-related inventions. Undoubtedly, they were made under pressure from some American MNCs, without realising that they were a death knell for the domestic software product industry. Luckily, good sense prevailed and 115 days later, on December 14, these guidelines were rescinded.

This near-death experience has had a positive fallout. It precipitated a coming together of minds within the government on having a proper policy for software products. As a result, a National Policy for Software Products is on the cards and should be out in a couple of months. It represents a new paradigm of policy making. For starters, it has no SOPs! Instead, it takes an integrative view of changes that are needed to create an enabling environment. It eliminates FERA-era norms that pre-

vent Indian product companies from going global. It introduces missing concepts in our policy lexicon. For instance, our tax code doesn't even have a definition for digital goods, and this, as you can imagine, results in misery for software product companies. It also tackles our archaic R&D credit system that harks back to the pre-liberalisation era and favours only large profitable companies. It is a bold policy effort that eschews tax-breaks, big budget outlays and protectionism for creating a modern policy environment for our software product companies.

Indian software products matter. This sector is the opening batsman for a new innings for India. If it runs up a good score, as it is likely to do, it will set the stage for aerospace, defence and electronics products. If India remains bereft of SPADE (i.e. Software Products, Aerospace, Defence and Electronics) product companies, it won't be a sustainable economy in the future. Keep in mind that Microsoft generates more profit than the profits of the top-20 pure-play global IT services firms. Boeing and Airbus alone generate almost as much profit as all global airlines put together. Cisco's profits are more than those of all European mobile operators. And Pfizer's profits, even before its recent

acquisition of Allergan, are more than the profits of top 100 hospitals in US. The value nowadays lies in products, not services.

We know how to build the world's best hospital, airline or IT services company. But no matter how well-run Indigo Airlines is, it will not become an Embraer or Boeing. Similarly, a Narayana Hrudayalaya hospital will never bring a drug to market like a Pfizer does. Airtel or Verizon will never build a router like Cisco and Juniper do. And TCS will never be a Microsoft. Acknowledging this plain reality is the first step that we must take. Building a world-class product company needs a different mindset. You have to go all-in and bet-the-company on a market or technology shift that is underway. This mindset is new to us in India. We must nurture it so that it becomes a new strength for the country.

The stakes are high, but there is reason to be optimistic. A few smart and light-touch policy moves (in the works) can make India a global software products powerhouse. It is the first step to becoming a product-nation!

Sharma, formerly the CEO of Yahoo India R&D, and Dusad, CEO of Nucleus Software Limited, are both co-founders and governing council members, iSPIRT

Amazon scores, Paytm morphs

The sales momentum was breathtaking. Amazon looked like it was forging ahead of rivals to become the market leader and it became clear pure-play wallets are an unworkable proposition. Those would have to be the three key takeaways from the e-commerce sector the space that dominated the headlines in 2015. It was all about pace, position and product. Little was heard about the most important 'P' of all—profit.

Spurred by discounts online buying hit new levels in the past twelve months, not unexpectedly, overtaking all previous estimates and ushering in new projections. Bank of America Merrill Lynch upped its estimate of \$200 billion worth of GMV by 2025 to \$220 billion.

The triggers for the online boom remain pretty much the same—better telecom infrastructure, convenience and awareness. But primarily higher sales will be driven by more smart phones—possibly 500 million by 2020—creating some 530 million shoppers whose spending habits could defy the theory of marginal propensity to consume.

Not surprising then that PE and VC

money continued to flow in encouraging entrepreneurs; between April and mid-October, investments had hit \$4.5 billion way more than the amount seen in FY15. With all sorts of start-ups looking for financial support, money managers seem to be backed vertically more than horizontally.

That didn't matter to Amazon however, which, going by the Diwali sales, now appears to be well-positioned to lead its two major competitors. In a somewhat stunning breakthrough, Amazon attracted twice the traffic that Snapdeal did in October, drawing 200 million unique visitors. More important, it left Flipkart some way behind—Flipkart notched up an estimated 164 million visitors. Snapdeal came in a somewhat distant third with 109 million visitors.

To be sure, it is early days yet to call a winner because customers are going to shop where they believe they will get the best deal or discount. However, price may not always be the

clinging factor from here on; one consumer survey, albeit a slightly dated one, pointed out how Snapdeal offered consumers a lot more variety but felt Flipkart's delivery was better.

At this stage, it would appear Amazon is doing all the right things; remember that in the November 2014 festive season it managed just 85 million visitors compared to 140 million for Flipkart. Amazon is also reportedly burning less cash at \$25 million a month, down from \$50 million a month last year though the losses could well go up. But where Flipkart doesn't look like it's in danger of losing the number-2 spot, Snapdeal may not find it so easy to hold on to the third place. There aren't any serious contenders just yet—but with Alibaba behind it, Paytm might just get there.

Paytm realised fairly early in the day a pure-play wallet business wasn't going to work; even before it heard from State Bank of India the bank's

customers wouldn't be allowed to load money from their accounts onto its wallet. That explains its aggressive foray into e-retailing.

The case for wallets *per se* is a convincing one—they are way more convenient than cash—but the question is whether there is enough to go round. While not all banks may be tech-savvy, the smarter ones will launch wallets and large e-retailers will find it hard to stay away from these. The not-so-smart banks too will come up with one.

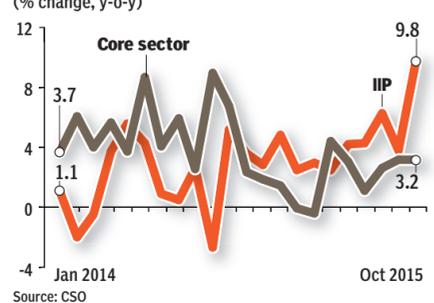
It is true independent mobile wallets can surpass banks when it comes to service because it is a focus area for them whereas for banks, it's just one more service. And young users can be demanding. But banks can throw in other services to woo customers. Also, a wallet that's attached to one retailer and doesn't allow customers access to other large e-retailers—Flipkart or Amazon, for instance—it could soon find itself without too much business. Given how service providers such as an Ola are also in the mobile payments space, there is even more competition. Which is why it is hard to see even two stand-alone wallets operating at economies of scale.



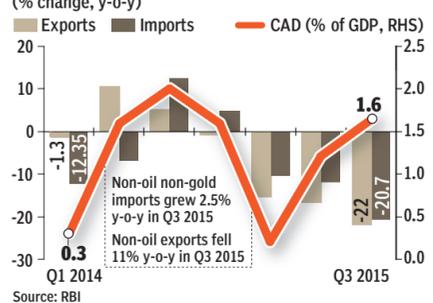
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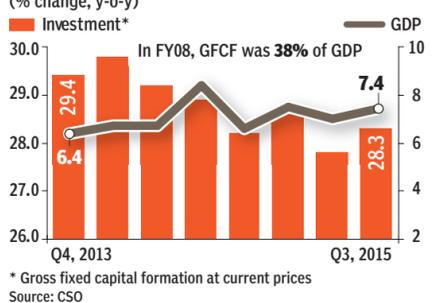
IIP recovering, core isn't



CAD good, exports bad



GDP recovers, investment weak



Taxes up, disinvestment weak

