

## Analyst Meet 2019

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### Insights

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**Karmesh Vaswani**

Good afternoon friends. The safe harbor – I will just pause for a moment on this. s

What I am going to cover is the whole arena of insights. World over enterprise data is flowing. If you look at the entire digital universe – for enterprises, for governments, for economy – data is growing exponentially. The stats that you see here – growth projected from 40 zettabytes to 175 zettabytes. These are difficult units of measures but just to put things in context, one zettabyte is 1 billion terabytes. The latest version of iPhone X which comes with 256 gigabytes of memory – you need four iPhones to have one terabyte; so that is the scale we are looking at. This growth is happening in all the leading industries and economies. If you just look at the transaction volumes that are happening world over, all these transactions are leaving a data footprint – not just transactional data which are structured, but a lot of unstructured data as well, which comes from interactions and engagements.

The other big indicator is really the way the Cloud economy is growing. The volume of data that is migrating to Cloud is growing at 7.5 times as compared to the volume that is moving to on premise, obviously on a much lower base. So in the sense every enterprise is becoming a big data enterprise but all this data is of little use if it cannot generate actionable insights and that is where the big opportunity lies for us at Infosys. Because all the 1300 plus clients that we work with where over the years we have cultivated deep intricate knowledge of their applications, data, integration, infrastructure – as these clients are beginning to prepare themselves to combat the digital revolution that is happening and they need such actionable insights to create value in the economy, we are helping them in shaping these insights at scale, at speed with efficiency and bringing the right level of governance.

So we have a structured approach for this. This is not something which is an easily executed service, it requires complex engineering skills with good domain knowledge, with good value chain skills because most of the client enterprises are not geared up to imagine how they would operate with such insights.

This is the framework that we are using to take our clients on the maturity journey of becoming an insight driven enterprise. So the foundation layer is really focusing on creating the speed, scale, efficiency and governance which I just talked about. Once that is in play where the entire data engineering has been created such that the diverse sources of metadata in the enterprise across legacy systems, mainframe systems, more contemporary technologies are all being ingested, harmonized, standardized and are available for consumption, it then creates opportunities to exploit new avenues of demand. Those could be looking at new micro markets, new customer segments and it is creating opportunities in all the industries that we are working in whether it is in Banking, Utilities, Telecom, Consumer Goods, Retail, Healthcare and so on. Once these sources of new demand are created it then creates the opportunity to seek avenues of disruption in that industry. The disruption comes in different formats. We are helping our clients to collaborate with their competitors – this is happening in utilities and telecom. We are helping our clients to start competing with their channel partners, this is happening in Consumer Goods, in Retail. We are helping clients to enter adjacent industries and drive these disruptions. As we progress on this with the power of insights and with the power of experience that Ben talked about it then leaves us to a stage where we are able to new digital journeys. These could be new digital journeys for the consumers and customers for the employees or for the various functions in that value chain – be it marketing, be it supply chain, be it the sales. But the biggest disruption comes in the last stage which is the augmentation by new technology evolution.

Some of you would have seen in the Living Labs downstairs, if you visited the 5G booth that as 5G comes into play, we would have far greater opportunities for augmented reality, we would have far greater opportunities for consuming video data at scale and using that for decisions. This could be

relevant in many industries, be it telecom for field services, be it retail in stores, be it the consumer goods to monitor territory performances and so on. Underlying all these there are number of multipliers, the time value because as these new data technologies and Cloud economies are maturing and we as an end-to-end system integrators are helping design these new path we are bringing the time component down, we are injecting more speed. The time to convert data to knowledge, new dictionary semantics that are beginning to come into play. Many of our clients are beginning to find new consumer and market segments which they had never imagined before, often leading to new products or new service ideas. This is broadly the framework with which we are trying to help elevate our clients' value chain in becoming more competitive, in helping them create better differentiation.

I will walk you through two case studies. One is in the context of a retail bank and another is in the context of fashion lifestyle retail chain.

This is one of the top 10 banks in the world. Like most banks 70%-80% of the enterprise economy runs on legacy technologies, vast majority of which is mainframe and mainframe systems are quite important to the functioning of these large banks, because they provide good resilience, they provide good computing power. But they are not that effective when you are competing with the data native, digital native banks which is emerging through the Fintech revolution. Now this client has 750 petabytes of enterprise data – you can put them in the top five percentile of the companies in the world in terms of enterprise data that they are managing. This comes from over 20,000 applications in the economy, 200,000 users spread across the globe in multiple countries. They rely on 400 plus commercial software which are used to ingest data, mine data, process it, generate insights, generate reports for various purposes, for sales, marketing, regulatory risk, compliance. There are over 1,000 plus business processes that are relying on these reports, some running in real time, some running in batch mode, so credit card fraud checks etc. What we did over the last 18 months is conceptualize a platform which will be hosted on the Cloud, which will be Cloud agnostic, which will provide a meticulously engineered capability which can ingest data from any source on any technology, which with minimal human efforts can help transform the data to be hosted on the Cloud, taking care of all the requirements both from a regulatory and compliance perspective. So, data lineage is important, accessibility of data is important, all the aspects which are important for a bank to function smoothly. And we build this capability where nearly 50 petabytes of the 750 petabytes load has migrated, with complete data lineage, with complete traceability into the origins of data. We have designed this to be cloud agnostic, so it could work on Google Cloud or AWS or Azure that provides them with Cloud contestability so they are not locked into one Cloud provider, they could be moving workloads from provider A to provider B. We have done this in a manner where many of their expensive commercial softwares are now being retired and those are being retired with absolutely no risk to business continuity. We established very strong data telemetry, so this really gives the power of observability to look at avenues where you want to improve compliance, where you want to mitigate risk, where you want to improve your new product innovation ideas and in many of these areas, we have achieved 50x improvement in cost, time and efficiency. But most importantly what this has done is that it has given a platform on which new business ideas, new innovations can now be conceptualized, designed and executed with speed. So recently this bank launched an offering for an attractive customer segment where they were not operating within 6 months. Under normal circumstances with their legacy landscape, they would have taken 2 years and that is the power of this platform. The beauty of this platform is that it has been created in a manner where lot of these assets, we have agreed with the client that we will broad base it in the industry, not just in financial services industry but other industries and that way we will help improve the performance for this client as well. These are some of the tangible savings that we have generated. Now you can imagine for a global bank, they need to track liquidity and report that to improve the performance in various segments of the bank that used to be a 16-hour window, it has come down to less than 2 hours. It significantly improves the performance of supply chain on capital. Earlier if they were migrating workloads and if they had to take one petabyte out of 750 petabytes just the sheer design

engineering effort involved would require them close to 5 to 6 weeks. That has come down to 2 days and then there are commercial savings on the analytic capacity for processing a petabyte of data as well as for the commercial software tools. So this platform is something that we are seeing as our opportunity to help many other banks reduce the cost of modernization. Many other companies in other industry also to benefit from these assets and we are already having conversations now with a few consumer goods and telecom companies to come on board on this platform.

I will move to the second case and this is a case of a fashion lifestyle retail company \$25 bn in turnover. Three years back we started the journey with them to harness the power of consumer insights. They were at a stage where approximately 5% of their sales was happening through their e-commerce channel and there were about 50 mn registered consumer users. All the insights about consumers were scattered across different applications, some sales applications, some marketing applications and there was some element of maturity in doing personalized marketing but it was not good enough. So working collaboratively with their marketing teams and technology team, we designed a construct which we internally call it as the Consumer Genome and that in the last 3 years has helped achieve the performance which you see on the right side, with online sales jumping to \$3 bn, they have grown at least 20% faster than the peer group companies in the industry in terms of online sales and in this industry the faster growth you have in online sales the greater value it creates on your market capitalization. It helps improve the average order value, because there is a lot of intelligence built into driving personalized offers, personalized interventions, personalized marketing, all in real time on any channels and that helps improve the propensity of their target consumers to come on board. This will give your illustration of how every activity or every interaction with the consumer through the prospecting, engagement, conversion lifecycle is being converted into a digital data footprint. That digital data footprint is a mix of structured, unstructured data which is meticulously housed in a global consumer data lake where we have now close to 120 mn consumers with up to 5000 attributes per consumer and these are now being spread into a number of intelligent algorithm through which all the marketing channels are activated to create better moments of joy across the lifecycle of a consumer.

This will give you an illustration of how in this industry we measure performance on digital channels in terms of the conversion cycles. Every year we have been improving the conversion ratio by about 30-basis points. The best in the industry is 2.2% we hope to outclass that in the next 12 to 18 months and a number of initiatives are underway. Just to give you a feel of the kind of interventions that are happening – there are consumers who are trend followers, who buy a merchandise looking at what others in their peer group are doing. So, when they are coming, browsing on the mobile app or on the e-commerce site, they get to see statistics like the bottom left of number of people currently weighing the product, a number of times the product was purchased in the last 24 hours. So the Consumer Genome that we have created, helps mine the psychographic of that consumer that what kind of experience should I render at the time a purchase decision is being evaluated. The consumers who are trend setters, who want to do something unique, so for them if they bought a shoe how do I give them a look book which shows them with other similar, adjacent merchandise and give them a feel for it. So these are some of the innovations we are doing, there are many others that we are doing on Edge Computing and we are quite confident of helping raise the performance on the digital channels for this client. But most importantly a lot of this experience is something that we are extrapolating into a Consumer Genome framework which we are extending to many other clients in similar industry, so the patterns are reusable and repeatable.

In a nutshell, our data and insight practice, today we are servicing clients in over 20 industries. 500 out of our 1500 clients are being serviced, so there is a significant headroom for growth in this space. This space gives us a significant premium because all these services require specialized skills, clients are able to see the value it creates in their P&L and balance sheet and they are



willing to pay the premium. Today we have 24000 professionals in this economy and 1000 plus data sciences and this is one of our fastest growing practices.

Thank you.

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