

INFOSYS ANALYST MEET 2014

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CORPORATE PARTICIPANTS

Sury

SVP and Head – Digital and Integration Services

Abdul Razack

SVP and Head – Analytics & Big Data

Sury

Alright. Good afternoon everybody and I really admire you so much, you guys learn in a single day, awesome stuff. I have to put some face to names. I think Ankur, we spoke on the phone a few weeks back, good afternoon to you. Govind ___ is there, I spoke to him last week. Then Nilotpal actually joined us 23 years back if I am not mistaken and my name is Suri. I actually have done 24.5 years at Infosys and my co-presenter today has actually done 24 days at Infosys. So let me welcome Abdul. I run one of the horizontal at Infosys called Digital and Integration Services and Abdul runs Big Data and Analytics. So today over the next 30 minutes, we will cover what we are doing in this horizontal.

Quickly, I think for everybody in this room and whoever else is not in this room one of the things I noticed is everybody has a definition of Digital and in our view Digital is a bunch of many technologies that are actually disrupting enterprises, funneling new forms of engagement and change, but Digital is also the business. So the fit for purpose of all these technologies because one of the things you will see in many client organizations is buys in this space required some sort of business involvement. Therefore what do these things mean right. For that, we have a definition of Digital and that is four things. First thing is how companies leverage new technologies to better engage with customers, consumers, partners, and employees. We have about 1000 plus engagements that we have done in Digital. I will talk about four of them now and a few more in the presentation. There is about 50 more outside and you will see all these paradigms of Digital come to live.

The second form of Digital is how do companies leverage technologies to optimize operations and simplify processes and that is where I think one of our friends here was talking about legacy. Clearly this is heck of a lot of functionality that is sitting out there in legacy and Digital projects are all about speed, how do you extract that, how do you simplify processes is very important for Digital. Third is how do you leverage the world of connected devices, how do you use Google Glass and do claim processing faster, how do you use iBeacons, push out your Digital menu and get restaurants and use Digital marketing to drag footfall into restaurants, how do you use watch in a mining industry. So there are many ways in which companies can leverage the world of connected devices and finally Digital is also about creating new product and business possibilities.

Let me illustrate each of these four with one-one example. The first one is the leveraging of technologists do engage better with consumers. This is an example that we have done for a large UK based telco. We worked with a large UK based telco and clearly in telcos what is happening, see Digital spend obviously phenomenal spend in retail, phenomenal spend in telco, phenomenal spend in banking and spreading into a lot of other sectors. Telcos are trying to do this stuff of assisted service to online service with the lot of costs going in and call centers. If people walk into a store, that actually hits their sales process and everything and there is stuff to be done on activation of services, changing, adding plans and a lot of stuff and telcos actually benefit a lot by moving people online. So we actually took this large UK based telco online. We moved the web service online and once people move online, you can do a lot of stuff. You can actually understand more of their behavior, cross-sell, and up-sell. So this is the case study where we have actually moved 20% of their advocacy up on by moving them online. There is a 6 mn savings because of the processing costs on the call center side and there is a 43% increase in e-sales simply because you are able to cross-sell, up-sell.

The second example is a large European bank where this is an example of how we have used Digital to optimize and simplify processes. KYC, many of you will know that it is pretty lengthy process in many parts of the world. What we did was take a 20 step process that was largely paper driven and converted into a 4-step process. More importantly we were able to convert it Omni-channel, not just Omni-channel in the sense of distributing content on many devices, but

Omni-channel in terms of the transaction. If you do a bit of it online, bit of it in the bank or bit of it through the call center, but it is a 4-step process that we did. So this added a 30% increase in new registrations as well as again whenever people come online, there is an increased cross-sell opportunity. In fact just if you go to our Infosys.com, there is a wonderful case study that you have on a large restaurant chain that we have moved online and clearly restaurants that are a wonderful place where if you move them online, we suddenly start to convert a person from an anonymous user into a known user and then you can do a lot more with it. In every one of these examples when we move people online, there is data, there is analytics, there is marketing to go through to get more sales.

Third example, this is a beautiful example on the world of connected devices. You saw the Google Glass there, but here is another example that we have. So this is an example of where we have tied up with device player who puts device in the car because many insurance companies are trying to move into this concept of usage based insurance and what we have done is there is a device on the car and then using data from the car and the GPS from where this person is traveling, that data is used to up or down the insurance payments and this has been introduced first around theme based insurance because first parents want their kids to stay around their zone therefore you can put alerts and all that stuff, but safe driving brings down insurance cost. So also you have to drive in a gamification strategy so that you are able to make sure that the best drivers are more recognized in a social world.

The last example is where the Digital has been used to introduce either a new product or a new business possibility. If you research again the telco industry, almost everybody is trying to do something because they own the fibre to the consumer right and this is an example of a customer where we have used IoT and the access that is there so the company has now moved from just being a telco provider to providing home security things. We have very many other examples where a cable provider is now selling content online and many other things. So I gave you four examples just to explain the four tenets. Engage better, optimize and simplify operations, leverage the world of connected devices, go after new business and product possibilities. So what is Infosys scale, are we small, big? So our hypothesis is we have significant scale here and we are further investing.

Now let me give you some data to corroborate this fact, right. Sixteen thousand people headcount this includes people working in the cloud practice, (+1000) engagements, 240 clients. In fact every client or almost every client has Digital in the top 3 priorities of what they want to do. We also understand that this place is a place where there is aggregation of capability coming from everywhere. So Abdul will cover a slide, but we have partnerships with large companies, small companies, medium companies, startups. So we are able to bring the best of what is out there to our clients. It is also a place where we call this the new age SI because the old age SI was get one company to do development, another company to do testing and somebody else to do the....Today's Digital is about creative, consulting, technology and operations coming together. I will give you an example in the next slide, but essentially say a marketer builds out a campaign and it goes on hits. Immediately you have analytics to figure out whether you have to create the campaign. You need maybe a workflow tool that is provided by technology to push this through the organization faster. You probably need an operations to go and evaluate social impact and you need analytics to figure out what is the impact of that campaign and everything has to almost co-ordinatedly restart. If the campaign is not working well, everybody gets together well. It is very unlikely that there will be a change request and somebody else comes in and drives through. So this is totally a new form of system integration that we need to bring to the market and there is a host of skills that we are bringing to bear on this one. We will talk about three parts; Consumerization, Mobility and Digitization. We will talk a little bit about Cloud and we will talk a bit about Big Data and Analytics.

In Consumerization, Mobility, and Digitization, we believe successful projects in this place have to adopt to three things. First one is transformation across the consumer space, across the enterprise space and the ecosystem space. I think if you go out, you will see an example of a sales rep in Unilever. I think we can use that name because you are anyway going to see that. A sales rep in Unilever goes on a retail execution. He goes from store to store right and this sales rep essentially we give them a brochure that they can show to the stores. This is actually in outside India. You show to stores and so essentially there is a process of fieldforce automation that is at play where you are scheduling their activity, they are able to go to many stores, but we also have a fantastic sticky interface where we are able to demonstrate the brochure, but this is just an endpoint app. For it to be very effective, there is a CRM app that is sitting out on the Cloud meaning they are using SFDC here and then to complete the order, you have an order management system that is sitting out in legacy. Unless these three things are getting together, the success of Digital will be ineffective. So where we are good at is where you bring in creative, you are a consumer and you bring in an app strategy from a Cloud based or a COMSTAT and you bring in legacy integration that is required for success and if you just do creative, most Digital projects do not succeed. Second, I think that is very important in this space is what we call rapid imagination and resilient execution. I think Vishal was also alluding to this. If business is involved in decision making, it is quite likely you have to show and tell, right. So we have this group called Digital Conquest, Conquest is a little bit of a patented name, but there is a bunch of 50 odd guys who are able to take any business problem that is being there and try to do a rapid prototype to show stuff in 2-3 weeks. It is very important. Any cloud sale that happens, you actually have to show that a prototype on the cloud as part of the sale process. So a rapid imagination plays extremely important for us to even complete sales or get business to do it. We have seen some enterprises where there are very large Digital strategy documents, but they did not move because business does not understand requirements documents, but they understand show and tell. So our imagination group besides obviously building out prototypes and Google Glass and variables is also doing these very fast prototypes. But at the same time, websites we will have to handle 19 mn, 10 mn users and all. So you need to back that up by having a very resilient architecture which leverages cloud, you are able to handle burst and split second response. So essentially you need to combine rapid imagination upstream with a fantastic delivery engine at the backend and I gave you this example of creative technology operations analytics. This is for a large pharma company where we are doing marketing operations. The rapid imagination example is where we have done it for many companies but telco has used it. So we show it to business and all that.

The offerings that we have here, I will just try to put a few of them out here. Commerce, we probably are one of the largest commerce players definitely in India. We do phenomenal amount. This thanksgiving, we were ourselves monitoring tonnes of business, lot of websites alive. We have a strong mCommerce offering, Digital marketing and user experience. We have a mobility group, social strategy. Basically manufacturers or CPG companies do a tonne of work around social. We have a BPO ____group which helps them build out their social, respond better on social plus also use targeted campaigns to go after disgruntled consumers of a competitor. And the last offering here is what I call the digitization. It is very important that you are able to take your existing legacy because there are a lot of features in it and move it to connect better into the external world. We have offerings around BPM, SOA integration and API economy. A few recognitions here. I let you read that. I also want you to go and see out an app. I think this is also a space where we have people who can deal with CMOs, who can talk to CMOs. We have people who have come in from the CMO organization. We have a consulting team, but more importantly we have a very good user experience team. In fact for a beauty salon that needed to build out a mobile app that will interact with their end stores, you can go on and see it. It was rated as one of the top 10 apps by Forbes for Cyber Monday last year. It is a beautiful app where people can actually collaborate, create collections amongst themselves, and find out the nearest store. It has actually improved their online commerce by 10%.

Cloud services, Vishal talked about it but here is a quick summary from my side. Our hypothesis is 60% of workloads will eventually move to the Cloud either in public or private form. Also Cloud gives phenomenal ready consumption capability for enterprises meaning it is on the Cloud, everybody gets to use it instantaneously. There is no roll out and all that stuff and that is why we have a good practice around SFDC and those kind of things. From the infrastructure side, it is operational efficiency. People are trying to move things to the Cloud. As they retire their old legacy, they are trying to move it to the Cloud and I think somebody asked okay, what will happen to the legacy and all, but let us look at what is the possibility out here right. From a CIOs perspective, it is quite likely that they will be asked to say okay, why do not you use that Cloud app or why don't move stuff to Cloud. So there is an assessment service, there is a transform service and then there is a management service. More importantly, it is going to be quite likely that CIOs will be dealing with apps coming from everywhere, apps coming from their own legacy, apps coming from cloud, apps getting consumed from different fashions and also apps getting delivered on many channels. Now in such a scenario, how do you orchestrate manage data and security. We have come up with this platform called Cloud Ecosystem which is actually used by several of our clients. In fact Pravin alluded to one of the case studies in his where Financial Services firm actually used our Cloud Ecosystem to manage a very complex hybrid ecosystem and also bring in contestability because now they can add in Amazon web services at a touch of a button, otherwise they were locked into another SI where they were bringing their cloud and if Amazon's cost was going down, they could not even leverage Amazon web services right. Now this Cloud Ecosystem allows them to leverage their own hybrid, public cloud in a very transparent and visible manner. With that, let me request Abdul to come in and take the next few minutes.

Abdul Razack

Thanks Suri and good afternoon, ladies and gentlemen. The hard part about post lunch session is to keep you engaged, but I just wanted to share with you what is going on in the area of Analytics and how it relates to Big Data and the opportunities that we see as Infosys see in this space right and I want to piggyback on Sanjay's presentation where he shared with you the data explosion that is happening in enterprises. Everyday 2.2 mn terabytes of data is being added. So that notion of data explosion and it's all forms of data, structured data, unstructured data, legacy data, data from feeds so on and so forth. So as these things come into the enterprises, companies are looking at a couple of things right and all these things that I am sharing with you is examples in Suri at the introduction, it has been a little more than 24 days for me at Infosys. So most of this work has been over the past two months. So the thing that companies look for when you have this kind of data is to derive insights from it and do two things. One is to improve the current process efficiencies. So in a lot of cases, you could argue or did they not know what this process efficiency before. Of course, they did but the thing that they have today or what we believe we have today is the computational ability to do data processing at a very high speed in order to improve their process efficiency. Just to give you an example, if you look at a process efficiency in an oil and gas firm, half percent efficiency translates into \$20 mn worth of value for that firm. So you can look at these kind of things across industries. So Sanjay also in his presentation talked about new and existing models that they can do. So this is what we do with Big Data and Analytics that we enable company to look at 1) improving their current process optimization, 2) is to create new models, new areas that they can play with. So for example in the mining industry, process efficiency could be predictive maintenance of trucks of the mines. A new area is to figure out staff monitoring because these things are in hazardous places.

Nowadays all of their personnel they wear watches or equipment that gives them GPS tracking and also garometers so that when they are fallen or something they can send medical crews in there. So there are new areas that they can go into. So this is primarily what we see at enterprises and the way we look at it because of the data explosion, the last piece on this thing which is they already have some sort of data platform that they have going on today and they always try to

augment with additional data platforms. And in such cases, we as Infosys, we are in the right place to stitch all this together in the context of the customers' business value. So this is where we see the opportunity, this is where we see a lot of traction in the 2 months that I have been. There have been about 45-46 customers who we have engaged in, in bringing this data together and we have two-prong strategy – One is if you have an existing data platform, that we can augment that with these additional capabilities or in what Vishal talked about earlier in the day is with this where we have put together and assembly of open source component. So he explained it pretty well, so I do not want to repeat it again. That blue box is the assembly. So the software cost of this is practically free. So the price performance is what I want to focus on. So that middle layer typically in a COTS model or something, you pay license for that model right and now we see a lot of advancements in the open source world where that cost is basically displaced for the customer.

The second part is the true link which is algorithms that we sit together and write and the way we look at it the existing process optimizations, we already know what the algorithm should be and we write it and we also bring this cross pollination. So for example what we have written for a banking industry is also applicable in retail banking. Propensity models that you have done for manufacturing industries are also applicable in other industry. So we bring this cross pollination ability across the industries. So that is one area of differentiation or one area of value creation that we bring, but the most important one is the outer box which is that the new models that customers are looking for. We sit together with them and try to do this problem finding in the methodology that Vishal described earlier in the morning which is the design thinking methodology where we sit together with the business either it is a half a day workshop or a one day workshop where at the end of the workshop we identify the top 2 or 3 things that we could simply work on and then iteratively bring value to the customers. So to me, that is the biggest opportunity and the numbers that you see there, I just want to share with you. So that was on the software side the cost displacement which is the middle box is basically open source and then there is a nominal cost for the tools and subscription and so on and so forth. But the hardware cost is what is very significant. So the two examples that he shared in the morning this large financial services company that is doing regulatory reporting, T+15 reports that he talked about where we were able to ingest data at 130,000 records per second and we were able to generate that report to the regulators in 35 seconds as opposed to 15 minutes that is their SLA. This was run on a 100 node cluster of Amazon Web Services that costs \$1 68 cents an hour. So now you imagine the hardware cost displacement that is happening from there that simply goes back into customers building new kinds of applications on the technology, be it the open one that they already have or the one that we subscribe to them. So this is in a nutshell what we have been doing and we have a lot of these engagements where we see a lot of traction. One is to renew their existing process, the second is to have their new process and of course as service providers, we can do all of these on our own. So we rely on the ecosystem. Like Suri mentioned earlier, we have 70 large partnerships which we have expanded into a wider thing that covers smaller players, also startups so that we can bring the most innovative things that are out in the market back into providing value out for our customers.

In addition, two other things that we do is we have the Engineering Services that Vishal talked about earlier. Some of the examples you can see on the show floor and the second is the EdgeVerve. EdgeVerve is subsidiary or an entity of Infosys. We have 6 different platforms in the area of commerce, in the area of distribution traders, in the area of marketing and so on and so forth. There are 6 platforms. So we combined that IP with the work that we are doing with our customers to provide that additional value that customers can get to and the way we do it is the most important or the most innovative way and it is a simple method where we do rapid iterations, we do low fidelity prototypes iterated, provide the first value to the customer in a matter of days if not at least in a week and then we take the feedback back, come back in, do more iterations of that so that it is not a 18-month long cycle before the customer sees value, but it is short cycles. We take advantage of the DevOps movement and also of course there are Digital Training Academy where we upscale our folks and in collaboration with customer folks and I want to close

with some of the testimonials that our customers have given and I would let you read that and happy to take a few questions along with Suri here. Hopefully that gave you a context on the new things that we are doing.

Participant

I am just trying to sort of understand, I know this is something called an average size in Digital, they come in all shapes and sizes, but I just think that the average size is still very small, typical size. What is it take for Digital to be say \$20-30 mn single deal opportunity? Is there a rapid upscaling from our perspective or is it something as a customer sort of find to use for and therefore it is a maturity of both sides, the customer as well as the vendor side because the industry has been talking ____ but I think still we are experimenting with that small sized projects.

Abdul Razack

Now typically, I think that is the way when we are doing it in small cycles, the way we try to find these problems is we try to find out the minimum viable solution that showcases value in the case of regulatory reporting or in the case of predictive maintenance and so on and so forth. So these average sizes are small, but we believe that we can do many of that. We have the ability to scale it to a lot of these and based on that, we believe there is a possibility to do larger set of transactions. When we have this comprehensive combined view of the end-to-end rather than 1% doing one area versus the Cloud versus Digital and so on and so forth, but rather in a holistic picture we start small but our hope is that we would end up in a bigger deal.

Sury

Yes, I think that is a good way of putting the prototype and small projects, but I think your question is can Infosys win a 30 mn deal, just one deal.

Participant

I am just saying what is it take to get there? What is the gap there between is the vendor gap, is the customer need to accept that, I am not sure because.

Sury

Now there are 2-3 ways, the projects we get, right. Many of them are small projects, many of them continue. We have clients for whom we will do (+20) mn just in Digital projects for a year. Many of these projects keep on obviously you need to do well right, you need to imagine well as well as execute well. So where we are doing very well 20 mn, 25 mn for a year is happening, the series of many small projects. There are also some types of operations where they give out 3-4 year deals. I would say marketing operations could be one area where they give out 3-4 year deals and also catalogs out there, I think the banking industry for instance is trying to move from doing a much better job on wholesale banking than this eCommerce solutions, B2B Solutions. These deals run into several million dollars. So you get a several million dollar single project, you get into iterative several deals which go into it but you will definitely now get a 400 mn 10-year deal and all in this but you will get 10 mn, 12 mn or a series of customer deals on the same thing but essentially done over 3-month iteration or something.

Participant

Just one follow-on question is I think pricing in Digital is generally higher, that is the understanding we get. So how do you compare the margin profile of this?

Sury

This is not a P&L. So I think we work through the verticals, obviously both things are true. You need to work with the verticals on that one.

Participant

Thank you.

Participant

Sir, the first part of the question is if you can highlight how do you differentiate let us say with IBM or Accenture or Deloitte, or EY in this area? Second part of the question is how does many of these Digital led projects lead to downstream work with the other parts of the business?

Sury

Yes, so that is a wonderful question. The first one, obviously you are right. There are parts of the Digital business where business is involved in the decision making. So the way we have gone about it is acquire competency with that whatever CMO spend for instance, so we have people from a CMO organization working with that and I told you that in our conversation also. We also have a strong UX capability but we also have very strong partnerships with a few agencies and we partner with them strongly to go on to that. Others are probably used acquisition and what we will do, what we will not do in the future I will not be able to comment on. And the second thing I told you is this phenomenal business out there in the sense that we keep winning deals and deals there. So it is not that one guy gets it, it is the end of the world or something out there. So there is a phenomenal business but like I said, I said if there is only a creative project out there somebody has just got to put the skin and put a new whatever the HTML sheet or something out there. There are thousands of companies which do it, right. However, if you are able to combine creative stuff that touches the consumer plus you integrate with an app stack like an e-commerce solution or an SFDC solution plus integrate into the legacy and bring that combination along with rapid imagination and fantastic execution and run this almost synchronously with analytics, creative operations and technology, I think that is a phenomenal killer out there. I think if you combine this, then the competition will be 4, 5 or so in this and our understanding of legacy is awesome, our investment that we are doing in this rapid imagination lasts where we are trying to bring this thing, design thinking is throwing ideas that we are working with. So I think instead of trying to answer that question how do we win business and this is how we win business.

Participant

And the second part was around how does this link to downstream work for the legacy business because I think one of the areas is maybe on Analytic side, maybe you are using a big data platform implementing it but the data still resides on legacy system.

Sury

That is why we have called our group as Digital and Integration Services. Actually my group, I will not break that thing but Integration Services is as rapidly growing as just the consumer technology is. Tonnes of staff is trying to bring legacy into the front, yes.

Participant

My questions are what is the pricing model you are adopting in Analytics whether it is output based, outcome based, or fixed price? The second question is that do you think that startups are better off in analytics business given the ability to attract data scientist and that talent as opposed to talent getting lost in large organization like Infosys and third where do you hire from given the sheer shortage of data analysts as such?

Abdul Razack

I think there are two parts to that. From a pricing prospective, the pricing is more around the middle box or the core components are free. These are open source, in true spirit of open source whenever we modify as part stack or something, we committed back to the community, but the tooling around it, the management monitoring that we have a base price around it and then the applications that go on top of it, we are sort of tinkering value based model because you could now repeat this algorithms and applications that we build for one industry sometimes are applicable to the other industries. So there is a lot of crosspollination that we can do. On your second question on startups, this thing that Suri mentioned right, the understanding of in a lot of these engagements that we have in a lot of cases, they are moving from an existing data platform, maybe it is not called a big data platform but most companies have a data platform either it is a data mart or a data warehouse and we are managing and monitoring that. So we have deep understanding of what is the existing business, where is it growing, how can it be more cost efficient, how can we provide the best price performance and that is the value that we bring and there we see an advantage to do that. That understanding is very hard to get it. It takes years or so a startup would come into that without any context so that is harder to get. So that is what we see at least in the early stages.

Sury

The startups, we are able to give them phenomenal client access and we are able to expand the stack, it is just a win- win

Abdul Razack

I have to leave. Thank you very much for the opportunity.

Participant

Just on the Digital, the more traction or the acceptance from the client side is coming couple of years back but if you look at the value chain of the vendors, this kind of a purchasing comes from the department outside CIO and CTO to the Chief Marketing Officer. So here the comfort could be with the consulting companies like Accenture or Deloitte versus Indian IT Services which has been known for outsourcing, so how do you bring that giants to get into that?

Sury

No, I think first and foremost see many companies have created this role called CDO. What is CDO? CDO's job is to make Digital an enterprise problem statement which means that if you leave it just to business, there is tonnes of silo little apps, they do not connect and they do not give the end productivity, right. What we are trying to do here is to bring those creative project silos with app stacks. When I use app stacks, SFDC, e-commerce, and the legacy together and CDOs are trying to do the same thing which means that what is doing well in one place, they are trying to move it across the enterprise. They are getting CIOs to actually start modernizing their legacy so that it can connect better to it so that what the business is asking is able to be delivered. So what

we are trying to play is this space between business and technology right and to play in that space between business and technology, I gave you many examples of what to do, right. Obviously, there are some conversations where the first point of entry will not be Deloitte or anybody. It will be an agency and agencies are also trying to add a lot of muscle behind them but they will find it difficult to scale because this requires rapid scaling and also building websites which can handle 19 mn. Tell me an agency which can build a website that can handle 19 mn? So they cannot and where we are weaken, we have partnerships with some really fabulous agencies that we have a go-to-market strategy where we pylon with them and bring that thing yes. Thank you very much.
