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Session 1 by Arun Ramu

Arun Ramu

(Presentation recording begins here)

..... and the people are trying to grab that at this point of time. What we are doing on our part is that we do make sure that the people who work on our projects are certified in the domain that is relevant. These are some of the indicative numbers, so you can have a look at what kind of stuff that we do. But we are seeing that unless we bring the domain to the table, customer is not very interested in us doing testing. They want us to know their business, they want us to actually certify that their business is running fine and so on. So that is basically what we are doing. Just to make sure that we do not lose the testing end of it, we are also making sure that everybody gets certified on the testing side, whether it is a CSQA, CSTE, or ISQTB, these are very similar ones except that this is in the US and this is in Europe and Australia. Then of course, we do a lot of Mercury certification and that is an ongoing thing. PMP, make sure our Project Managers are all certified on PMP.

On the other side we have solutions in the enterprise applications space. This is something new I would say. It is about a year and year and a half and this is something that the entire industry is going towards. They are saying that please take away my entire pain and do not come back with any new projects and give me a department that I can work with more or less, shared service and to do that we are making sure that we already have enough frameworks that ensure that our revenue productivity gets high, and these frameworks are actually do work with existing tools and they enhance the existing tools like the Mercury tools and things like that and ensure that going forward we are at a much higher level of thought leadership and automation and productivity than our competition.

In terms of the competitions, we do have many Indian IT services vendors just starting off. Some of them of course have been just for about 3 to 4 years now, but most of these, that I think the 3-4 years old IT vendors would be in the range of 3 to 5 and the rest of them are just about starting to you know realize that testing is a good market to be in.

Testing services market is quite large today, like I mentioned. So there is you do not see competition in every thing. There are a few places where you see competition but most of the times it is there just to take. In terms of the customers, large enterprises are taking testing very seriously. I can mention we have customers who are in three digit figures and they are doing testing across the globe. They want to standardize everything that they are doing and so on and so forth and because of the lack of budget they are actually pushing a lot of that stuff offshore. Lack of budget, lack of skill also because testing was never a significant career path early days. So nobody in the western countries does much of testing. So if you really need to do good testing it has to be offshore where people are willing to take that as a career path.

Industry analysts, here what I mean is the Gartner and AMR, have actually started covering testing as a separate entity. Earlier they would never even talk about it, they would talk about testing tools because the people like Mercury, _____, they had revenues to talk about but now they have slowly started talking about testing services, though they have not come out with any clear picture as to what the market size is. I am assuming that within this year sometime they will actually start announcing the market size and things like that. And I think one of them very recently tried, one of those Gartner quadrant kind of things where they give rating to service providers.

In terms of the next steps, people are going towards automation and use reusable frameworks and I think that is the way to go forward as well because given the size of the market, given the demand, raising the productivity is the only way to that and would be through some of these automation things.

So quickly summarizing it, the market opportunities are high today and offshore is becoming predominant. Resourcing is a problem here simply because testing if you really look at it does not have a history, which means that anybody who is experienced in testing, I mean 80% of the people would be experienced at the most for three years and four years, right. So you do need to have people who can understand different levels of testing, test

management, test strategy and things like that, and we do a lot of that through our IVS Academy and we are also bring in people with other talents like we pick up people from the banks and insurance agencies and things like that to ensure that they bring in the domain language that we require from them. The tendency is go and get commoditized in the testing market very quickly because there is so much there and what we are trying to do is move into the high value solutions like I said through frameworks, through go-to-market solutions with tool vendors like Mercury. Influencing our community - what we are trying to do is, we thought leaders, we attend a lot of international conferences and we do have our own leaders at same forum where we call in Senior Vice Presidents of testing from different companies together to make sure that we have processing of knowledge in relationship and things like that, and they are the ones who actually guide us as to where we need to go further. We do also have university programs and workshops that we take on, which means here what we need here is that the engineering colleges of Karnataka, we make sure that we are addressing them in terms of where is the testing career, and why should they take it and so on and so forth. We also teach in some of these colleges to make sure that they understand how to do good testing and so on.

That kind of brings me to my case study. This is a leading wealth management company, global, and here if you can look at the issues here, most of it was impacted due to totally immature testing practices. What was happening is that like I said till 2000 they did not even worry about doing the testing too much and suddenly later they realized that they need to definitely start doing that and they had no standardization of processes, no standardization of tools, limited visibility of the functional level progress and so on and so forth. So given that situation we said that they should go in for a Test Center of Excellence, right. What does Test Center Of Excellence really means is that you have a shared services group which states a vision and states that we will change your testing outcome in these terms and those terms typically are in terms of the defects that you see in the market, defects that you see in the product, and hence the dollar impact that you will see that will get back. If I find a good bug, I can say that this would have cost you about \$5000 in the market, right, things like that. So we actually do that kind of impact analysis and the Test Center Of Excellence makes sure that everything comes together whether it is infrastructure, whether it is policies, whether it is people, whether it is productivity, everything and we just make sure absolutely everything there and make sure that we get a seamless service where for them it is single window transaction for doing testing. They just drop good applications into that window and they get back the results including the impact on business and so on and so forth. So, given that situation, I am going to the last case study which is the business benefits, what happened in this particular case, we could give them a direct cost benefit of over \$3.5 million. This is most when we say direct, it means that when we pulled back all the resources offshore, because they were working with different contractors and they had a 100 plus contractors working on their shores and we actually replaced each one of them and brought them back to India. The potential of saving another 5% to 10% is there while our efficiency gains simply because when you don't have bugs there is nothing to fix, there is no support, there is no maintenance, and things like that. So, all that drops and that consist of 5% to 10%. Improvement in quality and risk reduced cost of ownership, very similar. Less than 1% of defect leakage by virtue of high quality dependable software. So what we are saying is that it is absolutely simply clean when it goes out there and the end-users of that are also extremely happy. So, suddenly you have a set of happy users, very little maintenance and support to do, so less work, and so on. That is the big picture of how testing really makes a difference in their lives. I will take questions.

There was one question earlier about the Mercury merger with the HP. HP recently bought over Mercury for about \$ 4.2 or less than \$5 billion. So far we have not got enough information directly from them. All that is in writing saying anything would change but verbal communication so far has been that we will still work with that relationship as is. There is no change.

Participant

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Arun Ramu

Independent is because it is third party, like I said, we do not interact with the development teams. Whether it is Infosys development team or a third party vendor development team, we do not interact with the development team. We act as an extension arm of the QA of the customer. So, my team's works with would be let us say Vice President, QA; they do not work with development, they do not report into development at any point of time.

Participant

_____ who are the other players.

Arun Ramu

Yeah, I am just saying that this is a guess estimate, it is not real numbers. I am guessing that 2.2% of the entire market will be in testing outsourcing, I am just saying that people are willing to do that and I am not guessing as to where it is growing.

Participant

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Arun Ramu

I have not heard of any significant players out there. In the US, there have been some companies in US and Europe. Europe a little less, US a little more; who have been into testing, but mostly in the product's space. They are kind of coming into this space as well and they are really niche players. They are not really big guns.

Participant

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Arun Ramu

See IBM, Accenture, I will even include TCS, just to give you that information. All three of them do not have a career path in testing. They do not have a single group which is testing group. I think TCS recently put one up within the last six months. They have identified somebody as a head of testing kind of thing. But, in general, they have not been as serious in testing, I mean they do not have a career path, they do not have processes made only for that and training and skill building only in that area and so on. They have been doing it like we use to do it before 2000 which was pick a set of developers and say for this project you are testers, right, that is the way they are doing.

Participant

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Arun Ramu

See the one thing is you have to look at the fact that however much the thing is slowing down, keeping the customer happy is the prime thing. So this testing is no longer the end of a developmental cycle. It is the start of a customer value cycle, right. So unless you certify that this will work in a market, you can have disasters there. Simple disaster was Delta. They did not certify their website properly where you could do reservations; this was some time back, almost a year back probably and I mean I do not have their real ticket pricing numbers, but there was one bug which allowed you to go from New York to London and back for \$20. I mean that is the kind of thing that you are going to have. So, you want to make sure that that does not hurt you at all. So I do not think this kind of testing will actually go away.

Participant

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Arun Ramu

Definitely, this year ____, otherwise they wouldn't, see because three to four years ago, I use to get, they used to come in and say can you have a team of 20, last year it was 50-60. This year is 100 plus. They come in on the first day and say can you sign 100 plus. So, that is it they see the value there.

Participant

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Arun Ramu

No, okay. This is just broken by the verticals, it is not by SBUs or otherwise. But most of our testing is not in so much as in ISV space but it is more in the space of enterprise application. Like product testing has always been there, from the day the first compiler was built, you had to test it, just to make sure that everybody can use the same compiler and it all worked same. So that kind of testing has always been there, but that has always been a cost factor. So, they tried to keep that as a minimum. Whereas now if you look at it for an application to go out there, being certified is a big thing for the user. Because if something is working for you for the last two years, somebody comes and says I will replace it, you are not going to touch the replacement unless it is going to work equally well, right. Even if it has new features, you would rather work with something that works for you than otherwise, right. So given that situation, the certification of that new software release becomes extremely important and it is part of the profit cycle not cost cycle.

Participant

Arun Ramu

We do that, we do that but we have a Product Engineering group and they typically do most of the product testing.

Participant

Arun Ramu

I will give you a couple of changes. One is the fact that before 2000 most of the applications, see this is now you have to remember I am talking only the enterprise application market, whether it is packaged application or its custom application, not the product side. The product side has always been happening and it will continue to happen. The enterprise application space earlier than 2000, most of enterprise applications were used for MIS purposes which is back-end stuff which means that even if there was a bug it really did not hit your top line or bottom line. There were some inventory controls, something went wrong, you fixed it with somebody at the back. The MIS guys wrote it, they ran it because of the bug they fixed it and reran it, right. It never really hit your market. Whereas today like I mentioned the Delta thing, the minute that kind of a bug hits the market, you lost a million dollars, right there, I mean there is no way you can recover it. So given that situation, today after 2000 and since the internet has come in and everything has come in, the business process is now clearly visible to the customer and he is the one who decides whether he wants to buy or not and that is hurting. So unless he is very happy with the software, like if you go to an ATM and it grabs your card, you will never go back to the bank again, right, simple things like that. Whereas that would never occur in that MIS situation, so that was one. The second one was the fact that pre-2000, nobody wanted to do testing. If you did testing, it means you are the lowest of the low. Suddenly with this business criticality popping up, what is happening is that people are saying, I need expert testers who can test security, performance, functionality, he should know the domain, everything and that means a very high skilled person. So going from a very low no-skill person to a very high skilled person, the market could not handle that. So they said anybody who is willing to give us that kind of high skilled person doing testing, we will grab. And of course, the third thing being that this is a new thing added on to their budgets, which did not exist before. So they are saying that you have the same budget, but you have to still do testing. All that put together meant that you offshore it to the good skilled guys, and that is where the market is.

Participant

Arun Ramu

This is the data you cannot quote me on. Basically, our ESAT of Infosys is one of the highest. So that gives an idea that this is not a low-end in that sense any more, it used to be, probably when you started, we probably had to push people into this and say you are going to do testing and they would say why and so on but over a period of time we have been able to explain to them that this is a very fast growing market and most of our guys are intelligent enough to know that growth is what matters, not really what you are doing. You want to be a senior manager quickly, you do not want to be dragged down by something which is not moving. See today this market is moving so fast, they know that their responsibility can double if the performance is right, can double every year

because we are almost doubling every year. See given that situation, people are more than willing to do that, plus the thing is that they get to, see unlike a developer who is mostly respected to coding his module, these people have to know the entire business applications, the business use of the application, they get to talk to end-users directly whereas a programmer does not necessarily need to talk to the end users. Given all that you get a much higher 30,000 feet picture than a developer who is like somewhere deep down there.

Participant

Arun Ramu

It is on the same average, not lower.

Participant

Arun Ramu

See solutions are actually rather new. I would say not yet more than 10%. But it is there, that is the portion that is growing much faster.

Participant

Arun Ramu

That would be solution.

Participant

Arun Ramu

I do not have that number right away, but idea is to definitely make it a large chunk of the business. I cannot put a number on that.

Participant

Arun Ramu

See, project level testing is unit testing, integration testing and system testing at the most; system testing also sometimes falls on _____ itself. It depends on for whom you are making the ____, if the ____ is being made for the IT department, then you would include system testing, if the ____ is being made for the user department, then it would be user acceptance testing. So, if you just take, integration testing and unit testing, it is about 10% at the most.

Participant

Arun Ramu

The way we do it is that we no longer have projects in customers. We actually that's why I said, we could share service. So, we keep maintaining the pipeline in such a way that it is always full. So, we are watching three months ahead saying by the way 10 guys will be free at that point. Do you have another test coming up. So we

make sure that it keeps happening and whenever there is a lean time we start automating and that helps us speed up the cycle as we go forward.

Participant

Arun Ramu

See automation, the breakup would be about 15%. Another 3, 4, 5% would be in consulting because they are few and far in between and the rest of it would be in manual testing.

Participant

Arun Ramu

See, testing projects are, again, we do not do projects any more, but they could be as short as two weeks, as long as six months and so on. It is like depends on the size of the release. If the release is a very frequent release, it will have a very short testing cycle, because we have tested it before also plus the changes will be very small. Whereas if it is a large project type of release, which means that some customer wants to move from legacy applications, the old mainframe type to the latest technologies, then the whole project itself will be two years out of which six months may be testing.

Participant

Arun Ramu

See, what Mercury does is purely let you build scripts and then it executes the script, okay. So, all the thinking you need to do before that script or around that script is yours. It does not do data setups. It does not do infrastructure setups. It does not even think up of the test cases to be done given requirements. So there are a lot of these other spaces which can be filled by our framework, that is basically what we do. We try to have frameworks like one of the frameworks was the Accord framework. Mercury or any other tool is not very good for back end testing. If there is server application, unless you have a GUI front-end, it is very tough for it to drive. So, we have built in stuff which will let it impact at the back-end. So this kind of picture, we have frameworks which fill in a lot of gaps.

Participant

Arun Ramu

No, no, no. See, the front-end may not fully exercise the back-end, okay. So, it is easier sometimes to exercise the back-end when the data base and the business processes are around that, very quickly behind, then I keep trying to go through GUIs. It is a longer process if you do it through GUIs. So if you can quickly, there may be only about 20 transactions at the back, of which you might have to look at about 100 GUIs. So you do not want to do that. So some of the optimization pushes you to make sure that you are testing is done.

Participant

Arun Ramu

Like I said, all of automation is about 15%. All of my automation put together whether it is through Sill, whether it is through Rational, whether it is through Mercury, or whether it is through Compuware, the multiple tools, right. So given that situation, I do not think it will be very significant.

Participant

Arun Ramu

I do not have the number, I do not have that break.

Participant

Arun Ramu

At the base level, at the manual testing level, we are at the same level as our ADM billing. So, it is the same. Whereas for any other service, we are above that.

Alright folks. Thank you very much and let us go on to the next session.