CITI Global Technology Conference

September 6, 2016

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Jamie Forese:

My name is Jamie Forese. I am the President of Citi. And on behalf of all of my colleagues at Citi, I'd like to welcome all of you to our 23rd annual Technology Conference. In particular, I'd like to thank all of you for your participation. These conferences are nothing without the great sponsorship that we have from issuers and from investors_____ established in 1981 by Mr. Narayana Murthy and just six engineers, and an initial capital of $250. That's not $250 million. That's $250. Today it is a global consulting and IT services company with 197,000 employees, revenues in 2015 of about $9.5 billion, and a market capitalization of $35 billion. Infosys is often credited with pioneering the global delivery model, and was the first company from India to be listed on the NASDAQ exchange. Infosys enables clients in more than 50 countries to create and execute strategies for their digital transformation.

I am delighted that Infosys's CEO, Dr. Vishal Sikka, is here with us today. Dr. Sikka, the CEO of Infosys, joined the Company in 2014 at a time of rapid and significant change in IT services. Previously, he was a member of the Executive Board of SAP, leading all products and technologies, including all product development, and responsible for driving innovation globally. In his 12 years at SAP, he has held several senior leadership roles, including becoming SAP's first-ever CTO in 2007. Dr. Sikka is credited with creating SAP's breakthrough in-memory data platform, SAP HANA, the fastest-growing product in SAP's history.

He is especially known for his championship of technology as an amplifier of human potential, and his passion for applying software in purposeful ways to address some of the biggest global challenges. Dr. Sikka received his BS in Computer Science from Syracuse University, and holds a PhD in Computer Science from Stanford University. Thank you for being here with us.

Let me also introduce Surendra Goyal, Head of Citi's India research and the lead analyst for Citi covering Infosys. They have -- I think Dr. Sikka has some remarks to make and a short presentation, and then Surendra will have a few questions of his own before we open it up to all of you. So, gentlemen, over to you. Thank you.

Surendra Goyal:

Thanks, Jamie. Good afternoon, everyone. Thanks, Vishal, for being here and doing this keynote. The format we have here today is Vishal will make a small presentation, and maybe I'll start with a couple of questions, and then we'll open it up to the audience. Over to you, Vishal.

Vishal Sikka:

Thank you so much. Good afternoon, folks. I want to make a brief presentation about what's going on in the world of services and in the world of Infosys, and in the world around us. If we can get these slides up here, please? No slides? Well, it turns out we couldn't load the slides, so I have to speak without the slides.

As you heard in the introduction, Infosys was started 35 years ago around the global delivery model, and the primary business of Infosys has been - in the early days it was application development and maintenance, meaning development of customer applications and maintenance of applications that were built by others. Over time, that model evolved into doing other kinds of things, other kinds of IT services.

The big jump in the life of companies like Infosys happened at the turn of the millennium, fueled by two factors. One was the emergence of Y2K as a big problem, and the other one was, right here in New York, Tom Friedman wrote this book called "The World is Flat." And 15 or 20 years ago, this idea of the flattening of the world created an opportunity to outsource jobs primarily to India,

and this outsourcing, which was fueled by the availability of talent, engineering talent and other technical talent, in India at a significantly lower price point created a massive opportunity for companies like mine.

That opportunity of shifting jobs from one place to another without a loss of quality but with an improved economics, is the model that has basically fueled the growth of this entire industry so far. But, I believe -- I started at Infosys two years ago -- I believe that this model has either run out of its time or is on the verge of running out of its time, and that is for a very basic reason, and that reason is automation. We are living in times where AI technology is becoming increasingly powerful and increasingly pervasive, prevalent. And as AI becomes more and more available within the IT, the same kinds of jobs that were being outsourced, or that were moving offshore, the mechanizable parts of these can be done with more and more automation. And this produces an enormous challenge to the industry, but it also, I believe, produces a huge opportunity.

So, at a time when I started two years ago, I faced a situation where the entire industry is being transformed, or stands to be transformed, on the basis of automation. At the same time, the same automation, the same digitization, also applies to every industry, to every company. So, the basic question that faces us is how do we deal with transformation at a time of this kind of a pervasive automation, a pervasive digitization.

I believe that this is a challenge that faces not only Infosys, but every company in every industry. And I think that it is easy to come up with a formulaic articulation of this, but my sense is that, in order to address this, we need a dual strategy, a strategy where on the one hand we can simplify and renew our existing businesses on the basis of automation and on the basis of innovation, and on the other hand we need to enable ourselves to get into completely new kinds of areas. Every businesses these days are facing this dual opportunity and the dual challenge of simplifying and renewing their existing business and, in parallel to that, opening up new opportunities in unprecedented new ways. And this combination of being able to do both is essential to the success of any business in these times.

In our own case, in the case of Infosys, the renewal has to be done on the basis of automation. And the engine for that automation for us is we have built an AI platform called Mana, Infosys Mana, which is the basis for our own renewal because of automation. We believe that we can bring automation to major parts of the services work that we do today, whether it is the standard kinds of IT services, like administration and verification and so forth, or even the more complex ones around consulting, as well as application development and maintenance. We can bring automation more sophisticated kinds of AI to the more complex parts of the IT services work that we do.

And in parallel to that, as the AI becomes more powerful and enables our productivity to get better, we have the opportunity to create a sense of innovation, a sense of creativity in our employees. The outsourcing industry has somehow evolved in a way that it has all become cost-driven, doing the same thing for less, the same work at the same quality, but cheaper. But, instead, it needs to be about adding value, about bringing creativity and bringing imagination to bear, and bringing innovation into all the work that we do. Increasingly, clients are looking for this, and we need to create that kind of a culture of innovation.

So, that is the renewal of the existing business. In our case, that's the existing services that we have. But, in parallel to that, we need to do new kinds of things. So, that Mana platform that I talked about, the construction of that Mana platform is one of these new things. All our work has to be amplified by software, so building that software and selling that software is a new thing that we are doing in addition to not only simplifying our existing services work, but also bringing the software into new kinds of things that we never did before.

But, in parallel to the new services, we also need a new kind of way to engage with our clients in solving their unprecedented problems that they have. And for this, we have been embracing design thinking in a massive way. We recently trained -- finished training about 100,000 employees of Infosys on design thinking. Last month we crossed 100,000.

So, people ask me why you are training 100,000 people on design thinking. Do you really want everybody to become an innovator? And my sense is that absolutely, we are entering a time where everyone will be expected to innovate, because, increasingly, the work that we do that can be specified, that can be articulated, is going to be done by AI. And therefore, the new frontier for us becomes problem-finding, not just problem-solving, and it becomes much more about being able to articulate what kinds of inventions, what kind of innovations do clients look for that are going to be necessary to do. And a methodology for bringing that in is design thinking, a systematic way to do problem-finding when problem-solving is the domain increasingly of AI.

So, this is what we have been working on, a dual strategy of renewing our existing business and, in parallel to that, getting into new areas at a time when every company is facing the opportunity to become a computer company. Every company is either being disrupted by a tech company or is in the course of becoming a tech company. I believe that the times ahead of us are times where people's imagination, people's innovative ability is going to be amplified by software, is going to be amplified by AI. And when we do that, I think that that is in general a mechanism for every business to survive these times and to thrive in these times, to make the digitization all around us into something that we can all grow in and thrive in, not just something that we can all be disrupted by.

So, that is what we have been doing at Infosys, and perhaps I would love to do some Q&A then.

Surendra Goyal:

Thanks. Thanks, Vishal. So, maybe I will start with a couple of topics, and then we can open up to the audience. And given the topic of this discussion, can we please restrict the questions to industry-specific issues?

So, Vishal, to start with, I'll start with a very broad question which kind of covers all the sub-segments of technology, hardware, services, software, etc. And again, this is not really new. The shift to cloud has been happening for a while. How do you really see the profit shift happening, say, comparing to the pre-cloud world, and again, in all these areas? Any thoughts here?

Vishal Sikka:

You mean for the services industry, right?

Surendra Goyal:

Like in software, services, whatever.

Vishal Sikka:

Yes. I think -- I have always believed that margins are a profitability measure, being able to deliver profitable services is a function of how differentiated the value that you offer is, how much ahead of the curve it is. And if we are able to do that, if we are able to always engage with our clients in the things that they find most strategic, most innovative, then margins and profits follow from there. The commoditization -- the commoditizing parts of our services industry are the ones that have been suffering and that have been -- where the margins have been eroding. But, there is no

shortage of higher margin kinds of offerings in new areas, digital areas, digitization of existing physical artifacts and so forth.

And by that, I mean, a lot of companies in our industry claim digital revenues, and even implementation of salesforce.com or mobile websites and so forth is somehow digital revenue. I don't understand why that is digital. And people often ask me how much of Infosys revenue is digital, and I tell them 100% of it is digital, because we write software for digital computers. We stopped writing software for analog computers in the 1950s.

But, I mean, joking aside, the areas of the world where physical value chains are becoming digitized, where intermediaries go away and are replaced by bits, I think these are areas where significant value creation is happening. And it has a different structure. It has different economics. It has different kind of a work profile. But, there is a huge amount of opportunity in there. I mean, if you just look at banking, I think as we heard earlier, a lot of the new kinds of regulations, new kinds of compliance areas, understanding risk, these are areas where we don't yet have good ways of digitizing the existing work. And the more AI that we can bring into it, the more software that we can bring into it, the better.

So, in every industry there are aspects of their business which are new and which are critical to the industry's survival and evolution, where margin profiles -- where good margin work is abundantly available. On the other hand, in the traditional areas where we see plenty of availability of doing the same kinds of things, everybody has the ability to set up centers offshore and so forth, then this is an area where margins are eroding very dramatically. And I think we should not be surprised that that is the case.

Surendra Goyal:

Right. So, taking this forward, you spoke about value to the customers. I was there at your Investor Day a couple of weeks back where you spoke at length about elevating the discussion. So, from an industry perspective, how difficult is it, given that in this industry sales have happened in a slightly different manner in the past? So, how difficult is it? And what are the changes required for this to happen?

Vishal Sikka:

I think that a part of the difficulty is that, in some companies, development of skills of that sort is not easy. Part of it is that, I mean, having somebody who understands an industry the way it used to be 20 years ago is not particularly relevant at a time when there is a fundamental change happening in the industry. So, having company who knows about the way banks used to work 20 years ago may not be so relevant to the time where, I mean, everybody wants to bring in block chain-based distributor ledgers and real-time settlements, and things like this.

So, there has to be a certain currency, a certain modernness in how we develop and bring talent. There has to also be a sense of trust and confidence that people can count on on the work that you do. But, most importantly, talk is cheap, right? Beyond the ability to consult and engage, there has to be an ability to deliver. There has to be an ability to make the ideas happen. Identifying problems is the key part, but then, after you have identified the problems, helping the clients execute on those and solve those is the other part.

So, it is all -- it is a matter of building the right scale and the right organization to ensure that enough people can have these kinds of conversations. And that is something that we have been wrestling with within Infosys. And I think that, increasingly, everyone is doing that. One of the big CEOs based here in New York recently told me that they compete with Silicon Valley startup for good young talent.

And one other part of that that I think is important to keep in mind, somewhere I read last week that somebody, one of the famous professors or somebody made a comment that it is easier for tech companies to get into a new domain than for a domain company to get into tech. and I thought that this is something which is absurd, that we all learn -- I mean, those of us who know computer science, we all learned computer science. There isn't anything extraordinarily special about it. Why can't we teach computer science at a massive scale? At a time when computing is transforming the world around us, we need to have a huge availability of computing talent. And every industry, every company in every industry has to think of themselves increasingly also as a computing company, and need to bring in computing talent.

Surendra Goyal:

So, for the larger companies, what do you see as the advantages and disadvantages here? And how do you really think this will play out?

Vishal Sikka:

I think that the strength of the relationship, the trust, the ability to deliver the established channels, those are the advantages that big companies like -- also like my own company that we have. The agile, the agility, the rapidness, the speed of execution is typically the advantage that startup companies have.

So then, as a large company, you have to ask yourself, is there a way that you can bring that agility into the processes, and I believe the answer to that is yes. I'll share with you one example of something that we have done at Infosys, or we are in the middle of doing. One of the stigmas in my industry is that people do the same work that somebody else was doing cheaper, and this is basically what the industry does. And I think that this is very unfortunate, because life is too short to not innovate.

So, one of the things that we started about 18 months ago was a program called Zero Distance, which was around this idea of inspiring every single project in the company to do something innovative. We have right now about 9,500 projects going on in the company. In the end, Infosys is a project company. Somewhere there are people working on a project. So, we have 9,500 projects going on right now, and I'm very happy that we have basically reached close to 100% coverage on Zero Distance.

So, when I talked about 100,000 people being trained on design thinking, in the end what it does is it creates a culture where people inside projects think about what is it that I can bring here that is innovative, that can improve the thing that I am working on. And of course, it is still very early, and the kind of innovations that I, every once in a while, when I am on a long flight, I go through these projects, and it is amazing. There are thousands and thousands of these projects where people find something innovative. And it's amazing.

As time goes by, this will become more prominent. The nature of innovations will become important, and so forth. So, I think that there is a very important point here about creating a culture where all 9,500 projects think of themselves as a startup, feel that empowerment, feel that agility of being able to innovate. And if you can do that, if you can decentralize innovation and decentralize the agility of the organization, then there is no reason why large companies can't innovative as good as startups can.

Surendra Goyal:

Sure. We can open up for questions now.

Participant:

Hi. Infosys and yourself, you've had one of the sort of loudest voices in the marketplace from the corporate side talking about the coming of AI and its impact not only on your business, but on sort of industry at large. But, I think to some extent, the world, the market, struggles with exactly where that AI is showing up, what it's going to look like in the near-term. We all know about the sort of distant future of what AI might look like. Can you give us some specific examples today of how AI is impacting your business and how we can expect it to be impacting other businesses in addition to yours?

Vishal Sikka:

Absolutely. So, there are two dimensions to that. The one is on how it applies to our existing business. Now, if you look at the way AI is coming into the world of services, the more basic areas of IT services which are more mechanizable, like L1 and L2 support, or IT administration and things of this nature, these are the ones where AI is already making its way in a very significant way.

If you look at how enterprise IT landscapes are managed and administered compared to today's clouds, for example, there is a massive difference at Google or Facebook or Alibaba, or companies like this. The number of administrators who administer these massive landscapes is very, very small. Now, of course, enterprise IT landscapes are much more heterogeneous, so therefore you would expect that, even in the world of automation, there will be a larger number of people, but still the proportions are widely off. They are, like, off by a factor of 1,000. And automation has to make its way into these more basic kinds of work.

So, L1 and L2 automation, where there are known run books and standard operating procedures and so forth, these are the first ones that are going to be automated, and they're already being automated. Beyond that, when you look at some of the more higher-end work, like L3 support, which is where programmers actually make changes to maintenance, to the source code of complex legacy systems, this is an area I believe that we can also impact with AI, where the work itself cannot be done automatically yet, but where we can amplify the work that is being done by those offshore engineers in India where we can improve their productivity.

For example, in identifying where the header is and understanding the impact of making a change to that part of the source code, and these are the kinds of things that they waste a lot of time today. About 65% to 70% of the time of an L3 engineer goes into identifying where the bug is and what the impact of making a change on that bug is, not in actually fixing it but just as outside contextual activity. And we believe that we can take out big parts of that with AI and dramatically improve the productivity of the L3 engineer. So, this is something that we have been focusing on.

And then, on the other end, there are completely new kinds of applications that are in significant need. For example, capturing the know-how, the tribal knowledge, the know-how that exists inside an organization into a more formal system, into a more mechanical system so that we can be less dependent on generational transformation, transitioning of people as well as generational transitioning of technology. This is an area that AI can have a significant impact on, as well as automatically understanding how processes can be evolved.

So, these are the kinds of applications that we are already seeing happen in the world out there beyond the more autonomous driving or self-balancing, self-healing kinds of systems and things

like that. So, these are very much already there and coming in the here and now. These are not only in the distant future.

But, I can say that, having spent the better part of my adult life on AI, I think that a lot of these prognostication that we hear about AI are kind of outlandish. And I think for the foreseeable future, I see AI as much more an amplifier of our ability rather than a replacer of our abilities.

Participant:

Just as a very quick follow-on to that, is AI as you're talking about it here, is it a change in the way that we; that code is being written, or that -- or is it advancements in the type of programs that have been written? Or is it a function of the fact that we're now seeing larger deployments in the cloud which are centralized, which are allowing for easier automation?

Vishal Sikka:

It is much more of the second case, which is in certain kinds of new software that is being written, less so than third one, which is that, because of the massive clouds that have showed up, and even less the first one, which is in the developer's experience. Our ability to write software is still by and large the same as it has been for the last several decades. The developer's experience has actually not improved significantly in the last several decades until Apple wrote Swift. Even the experience of writing iOS applications was very much the same over the last 30 years as writing any other application.

So, unfortunately, there hasn't been much of a significant advance in how we write software. We are starting to see some advances now with dev ops and some better tooling and so forth in how we write software. But, it is much more that second category that you talked about, which is new kinds of software that is being written. In particular, deep learning is a technique that has become quite prevalent in the last few years that has started to show some good results in the kinds of Web applications that we see, identifying patterns in pictures and videos, and the application of deep learning in autonomous driving and self-piloting and things of this nature.

Participant:

Thank you. IT services used to be historically a lagging indicator. And I'm just wondering what your view is of that today, given that durations have shortened with digital. And I'm just wondering what you think, is it leading or lagging in terms of IT budgets?

Vishal Sikka:

That is a good question. It depends on whether the driver of the budget is a cost-oriented part of the enterprise, or if it is a growth-oriented part of the enterprise. If it is a growth-oriented part of the enterprise, those budgets are definitely a leading indicator. A cost-oriented one, where you are on the trailing end of a cost optimization initiative is a trailing indicator.

Generally speaking, I have to say that it is much more weighted towards that cost, and therefore the trailing indicator, and less so but increasingly towards the leading indicator. And my hope of course with my own -- with Infosys as well as I hope that generally for the IT services industry, that we go more and more towards the former. It is more fun to hang out with the living than with the dead.

Participant:

In terms of Cognizant made a comment about rescaling the workforce, and that seems to be in terms of breaking the revenue-headcount linearity. When you think about what you need to do, how long of a transformation is that, and what's the ultimate goal, three to five years from now? I don't know if it's more outcome-based or what. What kind of metric would you put on success in that goal?

Vishal Sikka:

In the goal of rescaling the workforce?

Participant:

Well, rescaling the workforce I guess to achieve the goal of not having the revenue be tied to headcount, is the way I understood it. So, what's considered success?

Vishal Sikka:

I think that if we have to improve the way we teach, as well. So, if we teach the way we have taught for the last many years and decades, then there's not so much that you can do in three to five years. But, if we can improve the way that we teach as well, then a lot more can be done.

So, one of the things that we have been working on over the last two years at Infosys is improving the way that we teach. So, in some of the very basic, like when I started in the IT services industry, today there is a fixation with -- there is a COBOL program, we're on a dotnet program, we're on a Java program, and so on. And then, people associate themselves with these categories for a long period of time, whereas there isn't anything particular when you can teach youngsters, or people who even come out of colleges and go to, for example, our university in Mysore, we could create curricula where people can learn multiple languages at the same time, or we teach in a way that dramatically accelerates the rate at which we can learn new languages.

Because if you look at the history of programming, programming languages emerge every few years, and there is a very popular programming language roughly every 10 years. And you can go back the last 50 years and see that this has been the case. So, there isn't any particular reason to be fixated with one particular programming language for your entire career. So, if you can create a mindset where we do this type of a thing, design thinking, the way we approached; I mean, we have crossed about 104,000, 105,000 people that we have taught design thinking, and we have created an experiential class that is for bulk of our delivery organization. It's a day-long class where we have teachers who go to the delivery centers and teach people at a massive scale. So, with new teaching techniques, I believe that the skills of an entire workforce will be possible to be transformed within a matter of a few years, whereas in the existing normal classroom-oriented teaching techniques, there is a difficult thing to do.

So, one of the things that, in fact, we have been doing with some of our clients, including some of our clients in the financial services industry, is we actually do training for their employees, as well. We have a very large bank here in New York where we are teaching the entire IT department design thinking, so like 5,000 people in the IT and operations department, which we are teaching. We are creating a training program for design thinking for their entire staff in IT. So, things like this have to be done.

Participant:

Thank you. Hi. Continuing on that same topic, could you talk a little bit about what you think the impact AI will have on the traditional application maintenance business longer-term?

Vishal Sikka:

On the?

Participant:

Application maintenance

Vishal Sikka:

Application maintenance? Oh, I think that application maintenance is going to be significantly impacted with AI. The capture of the knowledge of a system -see, the way we do L3 automation, or bring automation to application maintenance and L3 support, is by building rich models of the source code itself. So, we understand the tickets and the logs and so forth, but we also analyze the source code, and we build a deep knowledge graph of the source code of a system so that, when a developer is about to face a bug that they have to fix, they're automatically guided towards possible resolutions, or parts of the source code where the error might be and where it needs to be fixed, or if there is a regulatory change that needs to be made to the source code, or if there is a new feature that needs to be introduced into the source code that we can automatically guide the programmer towards that.

But, as you do that, the AI system continues to build a richer and richer model of how the system behaves. And that is very advantageous from the point of view of supporting that system. So, I think that that is one big way in which the maintenance business will evolve, to be less and less manual and more and more automated. I don't think for the foreseeable future this will become completely automatic, but certainly much fewer people, or fewer number of people will be able to do much more because of this amplification effect introduced by AI.

But, the other part of it which is around capturing the knowledge and educating people on what the system's behavior is and so forth, this can have a significant impact. And also, the improvement in the process around the system itself. So, when we started, our platform in this area is called Mana, Infosys Mana. When we started building Mana, our emphasis was on saving the cost by automating the operations of these systems, but it turns out that process improvement and process simplification is always far more valuable to businesses than the cost improvement because of operations.

And in our own example our CFO, Ranga, is sitting back there, we applied Mana to our own travel systems. So at Infosys, travel is a mission-critical process because our employees travel all the time. We have tens of thousands of trips that our employees make. So our own internal iTravel system, which is a collection of 13 different applications, it is administered by 320 or so people, we brought Mana to simplify this.

At first, our CIO came and told us that we can lower the number of people who manage this from 320 to, like, 30 or so, which is huge. But then, when you look at the cost of that, you said this is not so significant. This is not a CEO priority. On the other hand, if you can lower the amount of time people take to book their travel and get the approval, that has a huge impact on the productivity of the employees and a huge impact on the business. So, that aspect of it is of far more value than the cost saving because of automation.

So, when we bring AI to the maintenance of systems, we will find that the cost saving and the automation has a huge benefit, but the even bigger benefit is in the simplification of the processes and the modernization of the processes.

Participant:

So, from a financial standpoint, as a service provider, does this expand or contract your revenue?

Vishal Sikka:

Well, in the early days, given that it is early in the cycle, it for sure expands the business opportunity, because we can go to more and more systems, simplify the automation, improve the margins on the work that we already do, and expand the scope of the processes that we can do with the same amount of bandwidth. So, it for sure is an expansive effect.

Now, four or five years from now, if you are late to this game, then it will have a contracting effect. But for now, this has a huge expansive effect.

Participant:

Great. Thank you.

Participant:

Hi. I'm wondering, in talking about the new areas, are you thinking about vertical applications, or would this be horizontal technologies? And when you think about these new areas, this is more like the platform or BPO type work that you're looking at? Thanks.

Vishal Sikka:

I think that -sorry, it is both. In the existing work it is more horizontal, where the service lines are impacted, like BPO verification, IT administration, or ADM, Application Development and Maintenance. But, as we build new applications, those are all vertical in nature, whether it is asset efficiency or predictive maintenance in mechanical and manufacturing industries, or helping out with drug discovery, or new ways of reaching customers in the pharma and so forth. In every industry there are unique applications of this.

So, the new applications are all vertically oriented. Bringing the technology to the existing services is horizontal in nature, though the platform itself is common. It takes on vertical flavors depending on the nature of the industry.

Surendra Goyal:

Maybe I can just ask a question here. So, automation in some form has been happening in this industry for a while. In some areas like BPO or testing, etc, it has been happening for a while. Well, if we look at financials for the industry, margins have either been flattish to trending down. So, it seems like that the gains from automation have been passed on to the customers rather than being retained by the vendors. So, in your view, what really needs to change for the vendors to be able to retain some of those gains?

Vishal Sikka:

I think that, first of all, their business model has largely been time and materials driven, where if you bring automation, then the effect is completely lost on the vendor, and it goes to the client,

whereas in fixed price or unit of work-oriented projects, or outcome-based projects, it would be possible to share the gains, or keep a larger share of the gains, and so forth.

The other part of it is the ability to monetize the software, either as a subscription or a license revenue I think that as a catching mechanism for the innovation. If there was a -- this is why we are adding software, not that we are a software company. We are a services company. We will always be a services company. But, by adding software into the mix as a portion of the modernized level landscape, you are able to capture that value in a more effective way, even if the underlying business model was a time and materials one and the client is loath to change that. Then, you can use the software to monetize the innovation.

So, I think I mean, we got excited about AI and so on, but if you look back all the way to the Industrial Revolution, the technologies that automate the work that we do have been around for a long time. And they always end up having an amplifying effect on people, on improving our productivity and so forth, as well as enabling new kinds of opportunities that were never there before. The key is our ability to capture that value that we say what that we generate.

Surendra Goyal:

Sure. This has been brought up in a few different questions. I just want to confirm. If your core work that you do is affected tremendously by AI and automation, then what is your primary offset? Is it that you have the AI tools so you can gain share, or is it sort of beyond IT mechanism where you go after areas like Internet of Things, virtual reality, augmented reality, other kinds of applications? Where are you headed?

Vishal Sikka:

Well, it has to be all of those, so expanding the -- going into new areas, new markets, new buyers, see, if we just limited the domain to the work that we already do, the effect that I am talking about, also in response of Surendra's last question, is that instead of a manual, people-only offering, we are talking about people plus software. And that has this triple effect that we can lower the price for the customer, we can improve our margins, and we can free up people to do more of the same kinds of projects.

So, that, if we are able to execute on that triple storm in a positive way, then you are able to cover more ground with the same amount of people. You can address the need that clients have of lowering the cost, and still improve and maintain your profitability. That is the key, is to be able to execute on this triple opportunity. If we don't do that, then we have become a victim of this downward spiral. If we are able to do that, then we can create a more virtuous kind of a positive cycle.

And then, beyond that positive cycle, then you get into the new buyers, the new markets, the new opportunities, like the IoT or virtual reality, new ways of reaching consumers, and things like that. So, it has to be a combination of these.

Surendra Goyal:

So, given that we are running out of time, thanks a lot, Vishal. Thanks for the discussion.
Thank you, everyone.

Vishal Sikka:
Thank you.