

The HCLTech Trends and Insights podcast

Nick Ismail

Hello, everyone, and welcome to the latest HCLTech Trends and Insights Podcast. Today we're going to be discussing the range of challenges facing global supply chains, and how the adoption of technologies like artificial intelligence and machine learning can help overcome these hurdles. My name is Nicholas Ismail and I'm the Global Head of Brand Journalism at HCLTech. And helping me break down this topic. I'm delighted to be joined by Chirag Modi, the Corporate Vice President of Global Industry Strategy at Blue Yonder. And Sadagopan Singam, or Sada, as we call him, who is the Executive Vice President of Global and Global Head of SAAS and Commercial Applications, Digital Business Services at HCLTech. Chirag and Sada, how are you both doing today?

Chirag Modi

Excellent. Thanks for having us, Nick.

Sadagopan Singam

Absolutely fabulous, to join this, Nick, and you know it's great to converse with Chirag you together on this.

Nick Ismail

Excellent. And thank you both so much for taking part in the conversation. So let's get started. The first question and Chirag if you could answer this for us first, what challenges are global supply chains experiencing? And are there any macroeconomic factors at play?

Chirag Modi

Yeah, where should we begin? I mean, there are tons and tons of topics to discuss here. So of course, last four years, have been tremendous ups and downs with respect to the COVID wave and honestly, the trends of disruptions have been playing, playing in the background for more than a decade now. So first started with e-commerce, then it triggered into labor and real estate challenges. As far as you know, tons and tons of retail-specific topics, you know, came to light, you know, the customer perception of each and every company, each and every retailer as to what is really the good mix between e-commerce versus, you know, versus the brick and mortar sales. So it all really began there. But it all came to head when COVID hit. And, you know, with so many of the traditional supply chain, physical infrastructure, you know, items, such as whether it's the shipping vessels, whether it's the transport carriers, whether it's parcel carriers, or other topics, they all kind of came to light during COVID years. More recently, on the disruption side, we've also seen a lot more on the, you know, natural disasters, a lot of those topics have become a lot longer in nature compared to what it used to be before. And, and they've also become a lot more disruptive in terms of the losses. So really, kind of starting with the business model changes, you know, with e-commerce, you know, trickling down into the real estate challenges, whether it's manufacturing capacities or distribution capacities, labor challenges inside the four walls of the warehouse or manufacturing plants. And then coming to heads with, you know, with natural disasters and other topics. More recently, you may have heard Nick about, you know, Panama Canal related

challenges, you know, the number of ships, the drought in Panama Canal is actually causing the traffic to be moderated in Panama Canal and which is kind of very, very unheard of, in, you know, in this day and age, given how widely used it is. And I wouldn't even you know, begin with the IT infrastructure challenges, all the systems that will chat at length about it, but I want to start at least with the physical infrastructure related challenges first, and then we'll discuss more in detail on the on the system side.

Nick Ismail

Sure. That's a really interesting example of disruption with the Panama Canal and maybe we can touch a bit on how the supply chain actually needs to become more sustainable, preventing issues like that. And but that also brings another challenge I imagined but before we get onto that, Sada, what challenges are you seeing when it comes to the supply chain? Chirag spoke about the physical challenges. Maybe you could go into the IT infrastructure ones?

Sadagopan Singam

Yeah, absolutely. Uh, Nick you know, Chirag covered a spectrum of issues and you know, very well put it, I would say. I think you know, from IT standpoint purely, I would say that you know ideal business go hand in hand in everything that we discuss on supply chain. But broadly, I would say that across all industries across all regions, from planning to execution, including areas like warehousing too or transportation, or in getting a visibility and getting a good hold on how the supply chain is operating in real-time, to even what none functions like procurement, order management systems and third party integrations, all these have undergone massive facelift on the grounds that were not seen before at all. And that means that it is as if we have leapfrogged by several decades in the matter of, you know, three, four years. And those changes and all from the variety from the range and the type of industries and the type of solutions that we had been able to sort of get meant that the industry has gotten a little ahead now. And that meant that a lot of investments on IT, a lot of refresh in terms of the IT initiatives, a lot of coming together of business and IT, as far as you know, driving value at a much faster pace, and making overall discipline teams competent to make them resilient, like the way that Chirag outlined. But it all makes the businesses more competent so that that has become the new norm. And the overall competitiveness of any industry, any enterprise today is pretty much reinforced by their resiliency. They're built on supply chain in the last three, four years. And with IT and business coming together, that has really made it possible for several enterprises as a showcase. And that's what most of us want to emulate. So clearly, the determinant of success is slowly shifted to how the supply chain is being managed. And that is a great way to reset business competitiveness as we move forward.

Nick Ismail

Thank you, Sada. And just before we move on to AI and machine learning, in particular, as tools that can be used to help overcome the supply chain challenges and build resiliency, Chirag I want to come back to the point you made or the point that you raised about sustainability challenges, how can supply chains become more sustainable? And is that a priority for them? Or for organizations that run them? And yeah, how can it be done?

Chirag Modi

You know, this has been discussed at length for over three decades now, Nick, and the United States, I'll just start with the United States, because that's where I'm based out off. And that's where majority of

the world's eyes are at. We have discussed this back in the 80s, if I'm not mistaken, carbon cap and trade, initial discussions started back then with it's that back. Long back, we are going and we are still discussing about adoption of it. Right, that kind of gives you an idea how much further we still have to go. And traditionally, we as an economy, we have tried to keep focus on, you know, ground up, like companies wanting to take charge of this. But the government's finally getting involved in mandating top down initiatives. So the SEC ESG reporting, which just came out about a month and a half ago, those reporting requirements are really one of those really big steps in that right direction. Now, it only mandates scope one and scope two, it does not mandate scope three. But honestly, scope one and scope two really should cover pretty much the entire spectrum of providers. Because if you are a utility company, for you a scope one would be different for me as an end user, it may or may not be counted in scope one or two, but as a utility company providing services to their customers, they will still have to count, you know, count and report those numbers. So where does it all take us to that we have to be the starting as an end consumer number one. As business owners, we also have to be mindful of the fact that this is eventually going to come and affect us. Imagine you are a shipping company. And now you have to ration so to speak, number of ships going to Panama Canal, you know, it affects you and your business. So all of these topics really kind of come together when you think about it holistically. And with the top down mandates, such as the SEC mandate. I think it will be a great starting point for all of us and honestly all of us in the same ecosystem, whether it's HCLTech, whether it's Blue Yonde, all of us in the ecosystem will have to do our bit you know, our solutions, we'll need to account for those sustainability related metrics. So that we can help our clients design, you know, better algorithms, you know, run better algorithms to, to do optimization. You know, HCLTech will do the exact same thing on the services and other topics, you know advising perspective, all of us will have to chip in and do our bit.

Nick Ismail

Sure, thank you. And in terms of some of those sustainable solutions, they're going to be reliant on technologies like AI and ML. So, Sada, moving into the next question, how can adopting artificial intelligence and machine learning help overcome challenges such as sustainability and build more resilient supply chains?

Sadagopan Singam

I think it all builds operates at pretty different levels for a start. One is, as Chirag mentioned, around governments and regulations have been our been the biggest catalysts in terms of wider adoption. That means that we again, we are talking about different governments, different regulation bodies, different geographies. So what we see is, obviously, the United States has gone ahead and made it mandatory in a particular way, in a very resounding way, interfaces are forming in line up, we also see that around the world, across continents and across industries. Now, various regulations operate at various levels, for example, the regulations that operate in the Chinese run countries versus the regulations that operate in the European market, to Far East, in Japan and Australia. So we see that no, while there is a common denominator, there are substantial variations in terms of how these companies are expected to report and where it because its supply chain being global in nature, it means that no, you need to adhere to a superset of you know regulations there. So with that, in mind, what we realize is you know, it is not just going to be established through ability to conform to each of the local geographies. This is where we see a massive uplift that technology can provide. And in fact, there is no way any enterprise can move forward without leveraging technology at its best. This is where we see the various algorithms, you

know, through machine learning or artificial intelligence or industry after industry, depending on their scale maturity, and their ambition, the type of partners that they work with and play a very critical role. And the beauty of this is in an unexpected way, because there is a supply chain, the best player in the supply chain actually pretty much determines the pace at which the others need to sort of get together. And that means there is a massive uplift that's also happening there. Suddenly, we see enterprises sort of going multiple steps ahead and oh, well, they are not ready because their supply chain partner is actually pushing them to do something bigger and better and bolder. So this is possible only because of the brush that technology provides there. So I would say that a new norm is being sort of set here a new normal is being set here. Primarily enabled by technology, mostly powered through machine learning and artificial intelligence there. HCLTech works with players like Blue Yonder, the industry leaders here to make it easy to digest, to make it repeatable, scalable, and provide global benchmarks and all across industries where possible. And everybody, sort of a benefit sort of this. And we in the process of making this a safer planet to live, we have really sort of upgraded the state and maturity and the success potential for each of the industry in the process.

Nick Ismail

Thanks Sada and Chirag, the same question to you what how can adopting AI and ML help overcome these challenges and build resilient supply chains? And what should be considered when adopting and integrating these technologies into operations?

Chirag Modi

Yeah I think as long as you are using technology for scalability, I think that's that's the way to go. So, you know, when, when there are so many disparate laws and disparate regulations, you know, in general, so much disparity between operating in one region versus another region, as Sada was pointing out earlier, you always have to look at technology as an equalizer, if you will, as a normalizer. To bring everybody you know, on the in that ecosystem together. So when you have to use technology for scalability, it there is there is a responsibility on technology side to say yeah, I'm going to help this scalable, but I also want to make sure I do this the right way. Otherwise, all you're doing is garbage in garbage out. And this is where the components of AI and ML and responsible AI, as we like to call it really kind of comes in. So small examples. If you have your disruption in your shipping lanes. If you have disruptions, whether it's an ocean vessel, whether it's your trucking, or anything where the goods are have not reached the warehouse, what can you do in order to divert that shipment, but not just manual, because that's not the definition of scale, though, what can the system do autonomously to go from instead of going from point A to point B, now it's diverting from point A to point C, instead. And, and those pieces are really kind of the technologies we are building and deploying with our clients, to be able to say that, you know, as a journey for the customer, you know, when it I'll describe this journey as kind of in four stage, you know, your digitalization journey, because you can't scale anything unless you have digitalization, that's really the first step optimization is like another step, which again, we have been doing optimization, you know, as an industry for a while about 20 plus years, we have been running algorithms. But then moving from there, to really kind of doing predictive artificial intelligence based decision making. And even that aspect, we have been doing it for some time, you know, 10 plus years, we have been doing that work in, you know, transportation, space, warehouse space and others. But how do you convert all of those in a scalable manner, in an autonomous way, that is really the stage we are at now is moving from that predictive AI to an autonomous supply chain. And that's really where tons and tons of AI and ML

algorithms will be needed. It's like you're going in a normal distribution, you're going in and applying, you know, three sigma and four sigma level of confidence intervals. That is really what makes our solutions differentiate that is when a partner such as HCLTech, that's where they come in to deployed this the right way for the right clients, you know, for their use cases.

Nick Ismail

Thank you. And before we go into some examples of customers, or end user organizations, you know, optimizing the supply chain, Sada, did you have any comments on, you know, what organizations should consider when integrating AI and ML?

Sadagopan Singam

Yeah, absolutely, I think there are multiple vantage points through which organizations need to approach. For example, there are organizations that were already on the ahead on the maturity curve in terms of supply chain adoption. Let's start by setting up an old what we used to call a self healing supply chains in the past to the ability to upgrade or to be part of resilient supply chains and all in the medium term. But more importantly, early leverage of AI and ML in the niche areas to provide localized or topic or topicalized advantages for their business competitiveness is a journey that some of the enterprises have been already into. But those enterprises have the real chance to be the category leaders, the industry redefiners, if I were to call to look at an a benchmarking against similar processes across industries and be the best in what can be done as part of supply chain. We are seen, for example, consumers industry is trying to learn from pharma companies, pharma companies are trying to learn from Hi-tech industries. So did all this means that there is a massive uplift in across industries, the point that I referred to earlier as well. And that is all par for the course for industries that are already on the path to become the best in supply chain. There are some industries, which got depended in this journey purely out of pandemic, where, from a relatively lower maturity, they had to pitch for up to a state of higher maturity being part of a larger supply chain with much more sophisticated players. For them, the real opportunity is leveraging AI and ML in a more substantive way, which means that you stopped only a certain process that actually shows a remarkable difference or are measured over a period of five years. But across the board, all the processes sort of, you know, not really adhere to regulations, but also confidently marched to, to be part of a larger supply chain ecosystem, as well as be able to upgrade and enhance their internal processes, and really sort of move to a different quadrant of operations. So that is the real change. I would think that and all that adds to their business competitiveness. And that is where it has seen phenomenal success, you know, in terms of many customers experiencing new levels of efficiency, and ability to create customer delight as part of this process. And all these are moderated, it's never a one size fit all even though they are part of the same supply chain, given where they were in their journey to where they need to go. Everybody has a different charter, everybody had a differentiated journey. And that's where HCLTech worked closely with the partners like Blue Yonder, in creating what I call as calibrated journeys towards maturity in the supply chain space, there, AI and ML have been a real game changer for majority of our customers around the world.

Nick Ismail

Amazing, thank you. And so let's let's get into some examples. Chirag, Can you provide any use cases or examples of where Blue Yonder has helped clients embrace AI to transform the supply chain?

Chirag Modi

Yeah, I mean, small examples could be, you know, the forecast accuracy. You know, when you think about some supply chain planning and demand forecasting and other pieces, there is tons and tons of AI and ML algorithms built in it. Those algorithms, I think the last count, I remember seeing those 165 billion forecasts we have you have deployed already in SAAS over, you know, you know, over close to 500, some clients who are already using that today in SAAS. So those those forecasts are really one way to look at, you know, how do you make this scalable, right, when you when you look at it from a solution perspective, and those are really at the at the highest level of, you know, predictive AI, combined is good. Some other examples are the transportation examples, the ETAs, the expected time of arrivals within our transportation management systems, we have used that for over I would say 2009 or 10 timeframe. So since that time frame, we have been using it for close to 15 years now. It has continually gotten better, you know, with more variables being added in, you know, historical data being used, you know, more ML algorithms added in over time. And we are we in fact, even added sustainability related optimization variable back in, old 7 or 8 timeframe. So if you recall, back in, back at that time, we had a new administration, you know, in the White House here in the US, and they were pretty big on, you know, energy credits and things of that nature. So a lot of companies were actually interested in running, you know, optimizations based on that. And again, a lot of those optimizations had not just the heuristics and algorithms related with it, but it also had AI and ML baked in. So again, it's been 15 plus years, you know, we have been using those algorithms. I think the big change, though, from predictive to autonomous example, as I was illustrating earlier, is really moving from the predictive AI to GenAI. That's where there's a lot more work being done at this. But majority of the work on the historical context perspective has been on predictive.

Nick Ismail

Sure, thank you and Sada, or what about you? Is there any use cases that you can share?

Sadagopan Singam

Yeah, certainly, you know, Chirag mentioned about how Enterprise Planning itself has substantially changed, in the leverage of modern technologies like ML and GenAI. I think one of the things that is also happening here is we are now enabling our partners to be part of now larger supply chain ecosystems. Now earlier, it used to be a maybe a set of chosen partners to work with on supply chain for very valid business reasons. But sometimes you know, it has always been the case that in all, the technological enablement has proved to be a challenge in the past. So what has now happened is our ability to sort of integrate supply chain with scale up and scale with attitude means that it is easier for enterprises to integrate into a differentiated supply chains at ease. So that is dimension number one. Dimension number two is we're also seeing a lot of changes that are happening just on the execution space itself. So for example, in transportation, we see that you know, a little more sophisticated approaches customers are beginning to make in terms of integrating with third party players in terms of managing their yards in terms of managing men material and related resources and the ability to sort of effortlessly hitch on to common pool of assets and resources. That means now somebody can be running on their own resources and assets for a while or a chosen set of resources about that for a while and effortlessly make the switch towards multimodal transportation, assembling on the flight all these are becoming possible because of the huge advantage. Technology provides them in being able to plan very flexibly and execute more elegantly. I think that's the big change that we're seeing. And the third

thing that we're also seeing is ability for customers to move to e-commerce integrating all the way from order management systems through internal fulfillment, sustenance to ability to integrate third party players and federated setup and more across continents be able to provide services and aftermarket services, no all at one go with the same level of consistency, and predictability and ability to lead the customers mind in this whole equation. And getting their sentiment back into the decision making process to enable them to promote their services to make their businesses more efficient payment and timeout. This is now becoming the new norm inside enterprises. And HCLTech works with partners like Blue Yonder, in enabling this journey, empowering the business stakeholders and enhancing the business competitiveness of our customers and across planning, execution, visibility and commerce. So this really is possible because of massive changes we are seeing in AI, in adoption of AI, GenAI, particularly and that helps customers know take those calls, and being able to effortlessly switch and integrate to newer supply agents. And this is true across multiple industries, nor whether retail or life sciences or manufacturing or in North America or in Asia Pacific or in Europe. I think this is truly universal phenomena both from a geography standpoint, as well as from the area that it touches. So it's very difficult to just point out one, you know, easy to point out or who is not doing it against who is contributing.

Nick Ismail

Well said, well said. Thank you Sada and you've mentioned the partnership with Blue Yonder, a couple of times now. So can you talk in more detail about how is HCLTech and Blue Yonder collaborating to deliver innovation and resiliency across the supply chain?

Sadagopan Singam

Yeah. So maybe we'll start with the historical context here. So we had been working with Blue Yonder, in its various avatars, right? For the last, you know, 18 plus years now starting from 2005. So I would count that some of the large partners of Blue Yonder, were among the earliest to begin to work closely with Blue Yonder. They have worked with marquee customers now in their supply chain journey, along with Blue Yonder, in the last, you know, 17-18 years around the world in many of their significant critical initiatives of the highly skilled partners of Blue Yonder, coating the entire wingspan from execution planning to visibility solutions. And in the last five years, we have really enhanced our relationship to become our 360 degree partner for Blue Yonder, working with them on their engineering initiatives on their process initiatives, as well as, we are also the big you know, partner for Blue Yonder on the infrastructure initiatives on the cloud initiatives besides working on Blue Yonder, in shaping and reshaping the in business processes, and for enterprises in retail, CPG, life sciences, pharma manufacturing, logistics on a high tech, in a very industry, any geography or whatnot, beyond or in various capacities. I think the key thing is an absolute trust and a cadence across various levels. So as I just demonstrated by Chirag's presence, you know, as part of this conversation, that's the type of guarantee we have between reordering and sale take, which means that, you know, we're able to together go and tell our customers that, we are, yes, we stand for a certain interest in the way that we look at their business. But, but when it comes to predicting your interest, we are in it together. And this is demonstrated by action, so time and again, across same across the continents. But more importantly, we are committed to building this relationship and much more substantive because what lay ahead is far more important than what has happened. We see that Blue Yonder has made significant strategic shifts in the way that they are visualizing in terms of industry trends in terms of becoming the most

dominant supply chain player in the market, in being the most impactful supply chain player in the market and HCLTech is absolutely rooting forward in that journey by matching the investments building intellectual assets, creating joint frameworks, going back to existing customers to up the game and going after new markets to create the new sets of opportunities and be that envelope in pushing that frontier center together. And that's a journey where we're investing from processes from technology from enablement from being able to be the true partner in demonstrating opportunities and abilities for the customers to serve through joint solutions, as well as making those fold investments in terms of indices and Flex Solutions being the GenAI partner for Blue Yonder, across the boards, all these initiatives, we are going to be doubling down, we're already have a great vision, but we do believe the future holds much greater promise. And we are absolutely interested in building this relationship much stronger.

Nick Ismail

Thank you, Sada and Chirag, is there anything you'd like to add to what Sada just said? Are there any learnings that you can share with us in the audience, in terms of, you know, what you've learned, working in partnership with HCLTech when it comes to building supply chain resiliency?

Chirag Modi

I think any partnership starts with trust. Nick and I think, as Sada pointed out, it's been 17-18 some years now, you don't last this long, unless there is trust. So you know, the foundation really is on that trust of one taking care of our joint clients, you know, the clients paying both our bills, so that client needs to be well taken care of. The client needs to see the benefits of our technology. It needs to see the benefits of HCLTech and Blue Yonder working together. And if client is really the one dictating, you know how well the partnership has worked, then and again, it wouldn't last this long if it wasn't a great partnership already. So it's it's been it's been a great run, and we look forward to continuing it.

Nick Ismail

Absolutely. Is there anything that either of you would like to add? Before I close off the session regarding the topic or anything that we haven't covered? So far?

Chirag Modi

I think what I would say is any client who is looking to, you know, explore opportunities. Certainly, certainly there are options out there, you know, for the client to explore, you know, joint partnerships, or, individual solutions and other topics. But what's more important is to choose a partner with the right trust for in place. And I think I think that's really the most important part is really looking for that advisor, if you will look for that advisor. And, you know, hopefully, hopefully, that that is a great starting point. And we take it from there.

Nick Ismail

Great and Sada?

Sadagopan Singam

I think you know, while enterprises and industries have made tremendous progress, I think what lay ahead is going to be much more promising, much more rewarding. And I do believe that, you know, our customers need to look in terms of how do we sort of keep upping this game show, and who we partner

with what's the specific value a partner can bring, not only in today's context, but in tomorrow's, you know, ever evolving contest who can be the partner, intimate partner that they can go work with. I do believe that through various initiatives and various success stories and experiences and the investments and the focus, and the bold approach that we're taking towards some working with the leading edge partner like Blue Yonder makes us pretty much you know, in the center stage in terms of customers, trusting their supply chain journeys, being the partner. And that is something that across business processes plus technology, we are here to solve. And that's a broad message. So basically, this is not about today, it's about tomorrow. It's not about today's business competitiveness, it is ensuring tomorrow success, and also the initiatives that will pretty much define the future of any enterprise today. And with pretty much no ready to serve customers here.

Nick Ismail

That's great Sada. Thank you so much. And thank you Chirag as well. Both of your comments have been very insightful. I've learned a lot I'm sure our audience has learned a lot before I close the podcast, I just like to sum up as best I can what you both said. So we started by talking about the challenges and it was mentioned that the trends of disruption had been playing in the background of supply chain for a decade and this was accelerated or brought to a head by COVID. We have increasing issues driven by climate change or sustainability challenges. And we're finally starting to see this being addressed by government regulation and top down mandates. When it comes to integrating tech it needs to be done first, scalability and act as a normalizer. Responsible AI is crucial and there are four stages of scale digitalization optimization, predictive AI and we're moving into an autonomous way of working. Organizations need to leverage AI and ML in a more substantial way. There are several use cases, including full cost planning. And now we're moving into ecommerce integration and aftermarket services with the same level of consistency, as well as personalization at scale and customer sentiment really being moved into decision, the decision making process. And finally, regarding the partnership between Blue Yonder, and HCLTech, it's all about trust. Trust is the foundation of a successful partnership. Thank you once again to Chirag and Sada and we hope to see you on the next podcast.

Chirag Modi

Thanks for having us.

Sadagopan Singam

Thank you, Nick. You know it's been a pleasure to be a part of this podcast episode.

Nick Ismail

We'll see you guys soon.

Chirag Modi

All right. Thank you. Take care.