Episode 169: Practical AI Use Cases in Supply Chain Planning with IBM

Ryan: [00:00:00] I see the future of supply chain as a self orchestrating ecosystem where AI continuously senses, decides and acts why humans focus on strategy and exception governance.

Richard: I'm Richard Howells, and this is The Future of Supply Chain, a podcast where we discuss hot topics, best practices, and the latest innovations in today's global business. In today's episode, we'll be exploring the Gen AI use cases in supply chain planning and real-world value that can be delivered today in what's an unpredictable world.

To do so I'm joined by IBM's Ryan Misquita. Hi Ryan, welcome to the podcast. Looking forward to talking to you.

Ryan: Absolutely. Yeah. Richard, thanks for having me on. It's great to join you on this podcast, on this interesting topic today.

Richard: So maybe you can quickly introduce yourself and your role at IBM before we really get going.

Ryan: [00:01:00] Sure. So my name is Ryan Misquita, as I just said. I lead the IBM's SAP supply chain and integrated business planning practice across North America. My focus is leading supply chain practices and helping global organization transform their forecast schedule, integrated business planning processes. I have been doing this for over 20 years, and honestly, the pace of change right now with AI and all the new stuff which we're doing with IBP and SAP, especially in the integrated business planning, is unlike anything I've seen in my career. What gets me excited is the combination of IBM and SAP, be it SAP Joule, or the new Joule AI for consultants because together we are helping companies to shift from let's react to what just happened and proactively adjust automatically.

Richard: Okay. It's great [00:02:00] to talk to you and I bet you meet with lots of customers every year and I bet you can't remember the last time that AI didn't come up in a conversation with a customer. 'cause I certainly have done this podcast for three years. I think we've been talking about AI for all three of them.

Ryan: Absolutely.

Richard: When you talk to supply chain leaders right now, what are the top pain points that you are seeing where Gen AI is actually helping in the day-to-day planning and execution environment?

Ryan: We are seeing Gen AI impact in various areas, right? I would say three concrete areas which come to my mind. Firstly, signal orchestration. Secondly is decision latency. And the third, I would say is prioritizing, right? So when we talk about signal orchestration, supply chains generate massive volumes of both, unstructured and structured data.

And the traditional systems struggle to synthesize it, right? So here's where Gen AI is helping us translate that complexity into actionable insights. We talk [00:03:00] about latency. There are fundamental mismatches between the speed of planning processes and the real-world problems or disruptions, right? So Gen AI significantly reduces the latency enabling faster and more adaptive decisions.

Thirdly, I talked about intelligent prioritization. So planners, we all know planners deal with constant stream of exceptions, but not all exceptions are equal. So in the case of Gen AI, which we have been seeing helps 'em focus on issues that have highest business impact.

Richard: So when we're talking about supply chain planning specifically, whether it's demand planning, supply planning, inventory optimization or the SNOP process, what are the most practical Gen AI use cases you are seeing that are actually moving from pilot to production? And what makes them production-ready?

Ryan: The most impactful shift, which the use case, which we [00:04:00] see is prescriptive going towards prescriptive exception management, right? We talked about demand planning, supply planning, inventory optimization. These were great tools, right? Adding Gen AI allows us to get to a prescriptive exception management.

We are moving beyond, for example, just alerting a planner that a stockout is coming. One of the use cases using Gen AI to analyze unstructured data like weather patterns or port congestion, right? And then automatically triggering a what if simulation in IBP, right? So this is a use case where we see Gen AI can understand weather patterns and then have what if simulations triggered within the IBP tool, right?

Similarly, when you talk about production readiness. What makes us real is the integration. We aren't just chatting with a bot, right? There is prompt engineering we all use for recent in the last two or [00:05:00] three years there's been heavy usage. But when we are trying to use Gen AI from an integration standpoint, it's about those parameters which serve as input to the IBP system.

For example, one of our large clients we recently worked on we integrated complex make to order environments with IBP, which allows for real-time balancing of demand and profitability. So these are some of the use cases I see to bring it to the pilot to production, we gotta make sure that we have the integration portion of it so that gen AI can automate and use the features within the integrated business planning to help the planners.

Richard: That needing the integration layer leads me on perfectly to my next question because I want to talk about building the foundation for ai . You've really gotta trust the data. You've gotta trust the process, you've gotta trust the integration, and you've gotta have a governance in mind. So Jedi doesn't just generate [00:06:00] plausible narratives, but actually drives better operational decisions.

So what is the foundation that you are seeing that companies should be building or have built for this surge of AI across the supply chain.

Ryan: So at IBM, we have a saying clean core, there is no clean core without clean data. The foundation is built on, we use our IBM impact accelerators. So before we even think about applying gen ai, you need the process rigor.

Through IBM, we have built IBM impact accelerators. Over 35 levels of standardized process definitions. This helps us to process the rigor before applying ai. So that's about process maturity when we talk about data quality, which is one of the most important aspects of supply chain. If your lead times or safety stock levels and S4 HANA are hallucinating your Gen AI will [00:07:00] too. You need a robust data governance layer, and that's where we have done significant amount of work having that process orchestration of the data layer, using our IBM ascent methodology to ensure that AI is driving operational decisions based on single version of truth.

So data is very integral. We are using Gen AI, we have built accelerators and we have set the foundation focused on clean data for clean core.

Richard: I really like that you can't have a clean call without clean data. 'cause you're absolutely right. If the data's wrong, the first thing I learned in, in, in

college, and if you look at me, you can tell I wasn't in college yesterday, it was a long time ago. Was garbage in, garbage out. That has not changed. If the data is wrong, the information, no matter what tool you are using, will also be wrong.

Ryan: Yeah.

Richard: Another big thing that we talk about a lot when we talk about AI, and it's the same [00:08:00] with every industrial revolution, is will this take my job? Will AI replace people or elevate them?

So in supply chain roles, where do you see Gen AI and AI in general automating work versus augmenting people like planners and operators to make higher quality decisions? So how do we work together?

Ryan: Absolutely. Now, this reminds me of how I felt like three years ago, four years ago when Gen AI was new. I definitely felt, I can understand the fear or the anxiety with Gen AI, right? It's a, it's still there. It's probably there in the ninth hour of a 2:00 AM party or after party as people say.

But having used this, having used Gen AI with our clients and our successful implementations of late, my answer would be elevate [00:09:00] rather than replace people. Now in supply chain Gen AI is more about elevation. Think about the transactional noise, the data gathering, which we just talked about, right? Report building, the analysis, the information gathering the planners, if we take this and give it to the planners especially the demand planners, supply planners, or in supply chain, they can focus on what humans are best for. And that's the thing. We need them to focus on strategic thinking to make judgment calls.

So Gen AI elevates and helps planners. Now I can give you an example. At our recent client, one of the largest SAP implementations we did for integrated business planning at, we are using advanced forecasting with over 70 external variables to improve accuracy. Can you imagine a human I mean, a human can. But putting gen AI and using this ex external variables, this [00:10:00] elevated the demand planner's work, right? From a data entry to a supply chain orchestrator. So now we can manage exceptions rather than constantly firefight.

Richard: I mean that adds value, but it also improves job satisfaction as well, I would imagine. Why would you want to be going through 70,000 lines of information? When you can get a computer to do all of that computational stuff and you can then make decisions based on the right 30 bits of data of those 70,000.

Ryan: Absolutely. Focus on. Allowing Gene AI to do the data gathering and , understanding the data and focus on, strategic thinking and allowing them to help. Yeah, that's very important. That's one of the use cases where we have seen Gen AI growing. And with SAP and Joule and IBM accelerators, we have been using that a lot.

Richard: So the next question I want to ask is around how to measure success when we're [00:11:00] talking about AI, which is still relatively new. What are the most defensible KPIs for Gen AI in supply chain? Is it service level, forecast error, planning cycle times, et cetera? And what should leaders measure first and what's a realistic value story when we're talking about measuring the impact that AI bringss.

Ryan: All my leadership calls or thought leadership with the supply chain planning team, how we want to use gen AI or introduce gen AI and what KPIs we should measure first. Certainly the ones you mentioned, I'll go with them, but I tell the leadership focus on two things, right? Agility and working capital. For example, planning cycle time. We help one of our clients in aerospace and defense reduce their planning effort from seven days down to about four to five hours. That's massive productive [00:12:00] KPI. When you talk about accuracy.

Now talking about the value story, it's about time to value, right? The realistic value story is not about 10 x or 50 x overnight. It's more like 25, 20% improvements in key metrics. And this can be delivered quickly with which compounds over time. And again, by using our pre-configured impact accelerators for IBP assets with IBM, we have seen clients realize 20% reduction in inventory carrying costs while improving on time delivery.

Richard: And that example you gave of moving planning cycles from days to hours is not just productivity ties gave of. at the speed of business. In effect plan, the planning cycles can keep up with the speed of real world disruption. And when you can [00:13:00] change planning cycles significantly, like you just described, you can plan at the speed of disruption and you can respond quicker than your competition.

And that's almost immeasurable. It's the difference between success and failure of winning a deal and not winning a deal. It improves costs, it improves customer service, it touches everything by just having the right information and making the right decisions as quickly as physically possible.

Ryan: Absolutely. Absolutely. Think about operationally. It's not just a productivity event. It's a different speed of decision making. So that is very helpful for the organization.

Richard: So you've been going through implementations of supply chain for 20 plus years. Supply chain with embedded AI for the last three to five years. Say, what are the top implementation mistakes you are seeing? When it comes to implementing AI across supply chain and how can teams structure a rollout to avoid [00:14:00] what's often called pilot purgatory of if they never get past the proof of concepts and rollout , to a broader deployment .

Ryan: Alright. That's a great question. Yeah, it's all about getting things, it's great cons, it's great to have gen user stories. How do we get from pilot to production? Avoid pilot purgatory. I think I would say one of the bigger mistakes I've seen is technology first and strategy second.

Richard: Executive saying I need to implement AI. I just don't know how or why.

Ryan: Yeah. The supply chain is so wide it can span multiple cross functional teams, right? We see it's planning, it's manufacturing maintenance. Now, when we talk about pilot purgatory. I think that's where we come in. We have developed this IBM garage method, right? So this is where we pick the 10 slice, right? A specific pain point, [00:15:00] like for example, excess inventory in EMEA, right? And prove Gen AI value there, right? Reducing that, by six to eight weeks. But at the same time, we also see failures, and it's change management, right? We don't use methodologies like Ascend, which we have to align and then we use them, we got to directionally also align as one of our IBM leaders Bill Petrosky used to say, don't let perfection to stand in the way of good, right? So this is where I see boiling the ocean, trying to get too much done, too faster. So step back, right? Pick up the thin slices and find the specific value cases to start value with.

That's really been helpful, right? For example, planners, they we build this great digital transformation tool. And they revert back to their old Excel sheets, right? The moment consultants leave they, they're back to, Excel [00:16:00] sheets and, getting that. So how do we pick up from a value case, right?

What it does, what does it mean to inventory from a regional perspective when we're talking about sales and operations planning or execution, right? But the focus of this slice right, is solving one high value problem. Like access

inventory, which I talked about in one region. And then that really helps to prove use Gen AI's value.

And so that's where, we can leverage the methodologies for robust agile delivery that ensures the solution design with overall business strategy, which is very important, right? So it is critical to combine technology with operating model changes, governance, and, user adoption. Gen AI not fail because of the model. I see a fails because of organizing alignment, which is simply not ready to use at a faster pace. Focus on. 10 slices, implement [00:17:00] the robust agile delivery. We can definitely stop thinking about the pilot to production and the stall and I think that's the important portion over there.

Richard: if there's one bit of advice that we hear consistently on this podcast. Start with the business problem and then identify the solutions and tools and technologies to solve that problem. Not start with the technology and look for a problem to solve. And that's exactly what you were highlighting there.

It's so important because if you don't know why you're using it, you don't know. When you're successful it's really as simple as that. You've been given some great advice and recommendations and you mentioned a few tools that IBM have, but if companies are looking to learn more about how IBM can help, first of all, what's your definition of how IBM can help companies addressing supply chain challenges and looking to leverage [00:18:00] AI across the supply chain?

And where can companies learn more about. IBM tools and methodologies,

Ryan: I would start off by saying we're the number one global SAP partner for a reason. We bring this unmatched expertise.

IBM is uniquely positioned because, we don't just implement software, we transform the entire ecosystem value chain. Our approach is built on four strategic pillars: procurement and supply chain transformation, asset and infrastructure performance, sustainable supply chain, and then connected manufacturing.

So what really sets us apart, Richard, is we call IBM client zero. So we have already deployed Gen AI and also Agentic AI across our own global supply chain. So this has helped us automate [00:19:00] over ten million hours of work and realizing over two billion dollars in productivity savings. We bring that practitioner-led experience to our clients.

So using our IBM Consulting Advantage platform, which we have developed for Gen AI, and this works with SAP S/4HANA, our supply chain with Ariba and IBP. What we do is we provide access to a library of pre-built Gen AI use cases and Agentic AI workflows that allow a supply chain to sense, decide, and act in real time. For example, I mentioned one of our implementations with IBP with this large food and beverage client. So we recently demonstrated how this decision, first architecture [00:20:00] orchestrates AI agents across their existing SAP S/4HANA and IBP landscape, right? So this helped them reduce decision latency and solve for cost, service, and risk simultaneously.

So we aren't just moving data and implementing software, but we are orchestrating high-value decisions across the entire enterprise.

We're talking about custom AI skills with SAP Joule, custom agents, right? With BTP, we talked about clean core. So whether it is solving demand, seasonability global KPI tracking, right? We provide an end-to-end framework for strategy to execution. Now, you asked me where can we find out about IBM, reach out to SAP reach out to us. We have number of forums, conferences we are going to have demos on AI. Our website has a lot of [00:21:00] materials on what we are doing in this space, right? We're very excited about the quantum computing and AI, right? We talk about our watsonx user stories or demos, which we do with SAP Joule.

And I feel this strategic alliance with SAP and IBM so we work together closely. We have built this unique assets like impact for IBP S4 HANA when it comes to supply chain, right?

And we have seen this use case or value proposition come, we have used it in our recent implementations. So this is where, we come in and having done this with multiple clients across the globe. We carry a lot of good starting points and accelerators with our garage, with our watsonx, and then of course, working with SAP on Joule the next step of Agentic AI.

Richard: So looking ahead, 12 to 24 months, what shifts do you expect as Gen AI evolves from assistance to more autonomous workflow embedded [00:22:00] capabilities? And if you could summarize in a sentence or two, what's the future of supply chain?

Ryan: I see the future of supply chain over the next one or two years, we are going to see a shift. Gen AI is gonna be there, always will be there, but we see a shift from AI to the next level, which is assistant to AI as an active participant in the flow workflows. So to really summarize I see the future of supply chain

as a self orchestrating ecosystem where AI continuously senses, decides and acts why humans focus on strategy and exception governance. So really I see the, the agent ai lot of improvements coming in there. And we are working closely and very excited about the future of supply chain with AI.

Richard: Hey, Ryan, this has been a great conversation. Thanks very much. It's been really interesting and I know you're a busy man and getting time out of your schedule is is not easy.

Ryan: Thank you. The pleasure is mine. [00:23:00] It was very nice talking to you on this interesting topic of AI.

Richard: It was a great conversation, very informative, and thanks everyone for listening. Please mark us as a favorite if you can get regular updates and information about future episodes. But until next time, from Ryan and I, thanks for discussing the future of Supply Chain.