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# Podcast Episode 10: Prashant Yadav on What Industrial Supply Chains Can Learn from Frontier Markets



## Key Takeaways

- To achieve patient centricity, both industrialized and frontier markets must change their top-down models.
- While logistics are usually the focus, money and information flow are often the biggest challenges for frontier markets.
- Industrialized markets can learn from entrepreneurs in frontier markets who are solving supply chain challenges with very strict resource constraints.



Renowned supply chain scholar and policy advisor Prashant Yadav discusses fundamental lessons that industrialized supply chains can learn from frontier markets, in this week's episode of the Patient Driven Supply Network with Roddy Martin.

## Transcript:

*Renowned supply chain scholar and policy advisor Prashant Yadav discusses fundamental lessons that industrialized supply chains can learn from frontier markets, in this week's episode of The Patient-Driven Supply Network with Roddy Martin.*

**Roddy Martin:** Prashant, welcome to you on the TraceLink thought leadership series on supply chain. It's seriously an honor to have you with your experience in emerging markets and in the advisory roles that you're playing in the World Economic Forum, World Bank, etc., on PPEs and COVID. It's great to have somebody with your experience.

I'm going to ask you to introduce yourself. Talk a little about your roles. Obviously, the main theme is not COVID, but what have we learned from COVID in terms of agility and resilience of supply chains? I'd love to hear somewhere in this discussion how you reflect on the difference between what agility means in emerging markets and what it does in the first world market. Welcome and look forward to you introducing yourself, Prashant. Thanks for making the time.

**Prashant Yadav:** Thank you, Roddy. Thanks for having me on this. My name is Prashant Yadav. I'm a Senior Fellow at the Center for Global Development. I'm an affiliate professor at INSEAD and a lecturer at Harvard Medical School. I've had a career in academia focusing largely on research around pharmaceutical-and-medical-product supply chains.

I've also worked as the strategy leader for supply chain at the Bill & Melinda Gates Foundation just before coming to my current role. One of the good things about having a career which spans between academia and practice is that a lot of groups ask you to join their advisory committees and things of that nature.

I've done that for various groups in thinking about how to structure supply-chain investments, how to organize supply-chain data to pipeline in emerging markets or, in the cases of mobile life sciences companies, how to think about the combination of both the revenue growth and putting more patients on access types of things for many of the larger pharma companies. That's a quick summary of my career background, Roddy.

**Roddy:** That's great. Now let's get on to this topic of agility. Let's start off with

your experience as you've spent a lot of time in Africa with the BMGF. What do they see the difference is agility to the way we tend to see it in first world markets?

We tend to see, I think, a lot more of an automated perspective that may be the wrong comment, but it's more of an automated perspective to agility, whereas my feeling from some of the BMGF work I did before you were involved was they focus a lot on people.

People are really central to the whole theme of healthcare. Talk a little bit about your insights and any nuggets you can share.

**Prashant:** I'm glad you started off by asking that question, Roddy. I think in the industrialized world, our view of agility has been how do we make decisions faster. How do we create processes, systems, the technology backbone that allows decision making as things in our larger environment change.

I think what we find different in what we call as emerging markets or frontier markets is specially for healthcare supply chains, there is a much stronger role of country governments and public sector stakeholders in general because they face a greater public scrutiny of their actions and decisions.

It requires a much more consultative process for them to make decisions. These decisions could be for things that you and I would say, "Well, this is a very high velocity decision in supply chain management, which shouldn't require such executive level decision making or shouldn't require such a consensus building process."

Even such decisions go through a larger consensus building process. That's, like I said, driven largely by the need for intense public scrutiny.

The second is that, historically, we've seen that the technical know-how for operating, managing, and running a supply chain has been weaker in many emerging markets and has been weaker in the sense of how we from the

industrialized countries view as something to be mature.

We say, "Well, the talent here isn't necessarily meeting what our standards of maturity are." In reality, people have figured out multiple ingenious ways of operating the supply chain within the weak infrastructure that they have to work with or the weak resource base they have to work with.

There seems to be a disconnect between our view in the lens of industrialized world supply chains and the local view, which is "We've got this bigger. We are doing it in some way. It's not that we have weak technical know-how or weak technical capacity" The reality most likely lies somewhere in between, but bringing the two points of view to convergence is what often takes much longer.

Therefore, agility in the supply chain requires a much stronger engagement with people on the ground. The ones who are making the executive level decisions in the government, but also the ones who are actually making tactical and operational decisions to run the supply chain.

Oftentimes, we come down to the fact that agility is largely about, is the supply chain org structure designed in the right manner? Everything else comes after that.

That probably is true in also industrialized in large global multinational supply chains, but I think it's a little bit more amplified when we see frontier markets supply chains in healthcare, especially where there is a larger government role.

**Roddy:** Not to oversimplify or exaggerate this, but it's almost simplistically, in emerging markets you're looking at technology through a patient lens and in the first world markets, you're looking at the patient through a technology lens.

It's a very simple way of seeing things, but I do think that if I look at a lot of the debates we're going through in healthcare today, it's about the systems we're using, not about the patient.

Your comment when you saw the logo on the wall about the patient-centric supply chain, and it's kind of as an interesting background as you know, Alessandro De Luca, who is the CIO of Merck KGaA. I worked with Alessandro when he was the CIO of Procter & Gamble.

In those days, Procter & Gamble had called their supply chain transformation, the consumer-driven supply network. Alessandro has jumped on that and said, "Oh. Well, this is about the patient-driven supply network." It's an intriguing thought.

How realistic do you think we are? I know that out of my consumer goods days, we always thought retail and the manufacturers would never get it together and share information and boom, it suddenly just happened. I think we're going to see the same thing in healthcare, people say, "Oh. Patient privacy and confidentiality of data." Where do you think we are?

**Prashant:** Firstly, both in the industrialized world health care supply chain and certainly in the frontier markets and less resource settings, we see a lot of conversations and talk, and debate about bringing patient centricity into the supply chain. I have, in a way, a two folded view on this.

On one side, I get excited that those of us who work on supply chain design and the others that we can influence to our advisory roles are paying heed to the fact that supply chain design should be based on what patients need.

On the other side, if we look at reality on the ground, patient centricity would get into things such as where does a patient truly want to go to get that medicine? Where do they want to go the next time they want to get it and doesn't have to be the same place every time?

That convenience can make them go from a clinic to a pharmacy to a little drug shop somewhere back to a clinic the next time, or even a little kiosk or a little pickup point.

Our ability to understand that preference remains extremely weak everywhere in the world. It's not because of lack of interest or lack of technology to be able to do that. It's largely because we have systems and efforts that for me disconnected at multiple levels.

We see efforts which are at the global corporate level, but their execution at the point of sale, at the point of delivery, doesn't have the incentives that flow through the system. Same thing with global health supply chains or supply chains for health products in frontier markets, where at the level in Washington, DC, Geneva, Seattle, and London, we see a lot of focus on patient-centric supply chain.

When you talk to the person, who is actually deciding where to allocate scarce inventory of medicines or other health products, they are still prioritizing based on a top down model in their mind, which is what they've inherited over years of working on it.

I think that's a disconnect between...Yes, we see some of this, but in reality, very little actual implementation occurring around this.

**Roddy:** I actually love you calling the markets "frontier markets," rather than emerging markets as an African, Southern African at heart, I much prefer frontier "markets" than "emerging markets."

It sounds like I should walk out of a jungle when I come out of an emerging market. It's probably a lot more respectable to call them frontier markets. What would you say the biggest challenges in those frontier markets are with regards to healthcare?

Because the reality is that, unlike the United States, even though where X number of states, in Africa, you're X number of countries. Many of those countries, some of them are at war with each other, and they don't want to share information.

They don't want their stuff to be seen by each other. There are very distinct

differences between healthcare in emerging markets where you have these countries and you have politics at play. Where do you think that is? What comments would you make around that statement?

**Prashant:** I think oftentimes when we hear about frontier market healthcare supply chains, the focus tends to be on the physical flow like the logistics. We are talking about environments where there are no roads or the trucks don't work, and our warehouse infrastructure is so weak.

It largely focuses on infrastructure weaknesses, but the reality is that our bigger challenges lie with money flow, information flow. Firstly, I think in frontier markets, there are two kinds of money flow issues at play.

The first is money that goes into buying healthcare products that comes from international sources, whether it's some kind of development assistance dollars from high income country governments or some other loans and other mechanisms from World Bank and groups like that.

The timing of that money oftentimes doesn't synchronize very well with the way we want the timing to be from a supply chain standpoint. If a country is to receive money in a given month and if there are delays in receiving it, all of the planning we do.

**Roddy:** Right.

**Prashant:** The second money flow is what patients pay in out of pocket or self-pay markets. If someone goes to a local pharmacy and is paying out of pocket or in a clinic, there the challenge is that how much they pay for a medicine is not as correlated with how much a manufacturer or pharmaceutical company charges.

It depends upon a number of intermediaries in the channel, a wholesaler, a sub-wholesaler, a sub-sub-wholesaler, a retailer. Each one of them charges as you would imagine some kind of a markup. The retail prices they pay actually

oftentimes are higher than what someone in a developed country would pay.

Those are two of the financial flow challenges, and then couple this with information flow, which is the end demand signal about what's in stock, what's being used, what's being dispensed is almost non-existent once you leave aside a few of the countries that have made early advances in that.

To operate a supply chain where, yes, there are infrastructure constraints, you couple that with the uncertainty and money flow, and then, on top of that, you add the fact that you have very little information to act on.

Now, you're operating in an environment where many of the concepts that we design in supply chain management suddenly start appearing very theoretical because if you want to sequence what you'll do first, the kinds of things that we work on industrialized world supply chains oftentimes appear to be, "I'll get to that, but I've got much bigger problems to solve."

**Roddy:** Right.

**Prashant:** That's the chance more of a disconnect we sometimes see.

**Roddy:** Yeah, I'm sure that's very applicable in the whole...If you take unreliable supply, unpredictable money supply or flow, you take an accurate demand for most accuracy, you're pretty well flying blind.

I mean you can do as best as you can. You're going to have to, at some or other point of time, if you can afford to play around with inventory, and that's the only way that you can guarantee supply. We all know that they don't necessarily have the privilege of playing around with hundreds of days' worth of inventory just to buffer supply.

One of the other roles that I found fascinating was your advisory role to let's say big international bodies on PPE expenditure and funds and big projects, etc. Any



nuggets without compromising anybody that you can share in that domain?

I'm pretty sure that lots of stuff has crept through the woodwork and lots of big projects that shouldn't have been and you may have had to put your finger on it and say, "Nah, that really shouldn't be doing it that way." Any nuggets you can share with us?

**Prashant:** Yeah. Firstly, I think a lot of development, finance and development assistance, resources are going towards equipping and enabling low and lower middle income countries to buy COVID-19 related supplies. Supplies would include test kits, PPE, and more sophisticated medical equipment and also medicines.

In a market, which has global constraints, where even countries such as the US and many countries in Europe are unable to fulfill their demand, it becomes much harder to get supplies needed for, let's say, countries in Africa or South Asia or many other parts of the world.

The second, bigger challenge is that, let's say you are able to get the supplies, how do you make the international logistics, but more importantly the in-country supply chain to function because you do want a fast response system.

I mean if you've been able to get test kits, if you've been able to get PPE in sufficient quantities for a country, we want to make sure that it gets to the intended users or beneficiaries as quickly as possible.

Running fast response supply chains in a large scale manner, not necessarily operating with disaster relief mentality, but operating with building a system mentality is something that depends upon an information infrastructure, flow and stock information, simple things that matter in running a supply chain. We don't have the luxury of time to set up the systems for stock and flow management.

I think many of us who worked in this have been saying this for quite a period of time that this is an important system component to build in places where such

systems have been built.

South Africa would be one example. It becomes much easier to just leverage the current supply chain information architecture and move things in a responsive manner without compromising anything about where the product is going, is there any diversion, things like that.

In places where such investments have not been made in the past, there is very little that can be done. I think it's just a very important and innovative sobering reminder for why we need to think about supply chain information systems in the right way for low resource settings or for frontier markets for healthcare in particular.

**Roddy:** Yeah, and it brings to mind as we were talking, without naming any countries, I mean there's this recent country where they've found an official who's been counterfeiting and diverting test kits.

Not to say that Africa is the only place those things happen, but Schubert says, "When the opportunity comes around, the bad people come out of the woodwork."

I think that with test kits and vaccines, and going forward into the future, we're going to see a lot of the bad folks come out of the woodwork and start exploiting the global scenario, the global pandemic just because people want to believe that there are solutions, but they don't necessarily have the means to validate the fact that it's not counterfeit or that it's safe or that it's secure.

I would imagine that's something that big institutions like the World Bank and the Bill & Melinda Gates Foundation have to be really wary of because I think we're probably as testing, if it hasn't already ramped up as testing ramps up even further, there's that bigger risk that I can come by a counterfeit test kit.

By the time the batch is finished, the person that made it is headed for the hills with their money and you'll never see them again. I would imagine that level of

governance is a big concern to the whole global healthcare system because it's obviously ripe for exploitation.

What nugget would you leave the audience with in respect of these frontier markets and getting healthcare right, so to speak, if there was such a thing?

**Prashant:** Yeah, I think the most important thing to keep in mind is that there are a lot of very bright and generous people, who have entrepreneurial spirit and passion and are trying to create solutions for running the supply chains in their countries in a better way by using information technology, business model innovation, and so on.

I think we have to find a way to marry that with what we all in an industrialized world supply chain working largely with let's say global multinationals view and create a way for them to plug in their local solutions into some kind of an information hub for supply chain that we all help create.

Instead of thinking that it is our supply chain information solution, and let's see, how quickly can we implement it in Nigeria or Kenya or India.

I think if that's the mindset and that's the approach and framework we work with, I actually get excited about the fact that we may end up learning quite a few very interesting things from clever people, who are trying to solve supply chain information problems within very strict resource constraints.

**Roddy:** Yeah, that's pretty exciting. When you think about the rate of cell phone growth in southern Africa and what they're doing with cell phones, and then you look at the visibility and analytics, the ban that the BMGF defined.

I think that's an incredibly exciting idea that you could have a platform in the sky, in the Cloud, that really is the point at which money or product gets deposited and then allocated, but it's not country specific, and it's a platform.

You can impose all sorts of processes and algorithms and rules, but nobody owns this. It's not a control tower. I remember right in the beginning of the BMGF initiative, where they said, "Nah, we're not calling this a control tower because Kenya is not going to want to know that Uganda has the control tower for Africa."

We're going to call it a visibility analytics network in the sky. It's really Uber over the whole of Africa and it gives visibility to everybody sort of in a governance-centric way.

I think it's very exciting because, to your point, we may find that we catapult opportunities in Africa because we are solving the problems at such a simple level, that we're not starring ourselves blind at the complexity of all these massively complex first world markets and getting stuck quite honestly in the complexity.

Thank you very much, Prashant, for making the time to be with us.

**Roddy:** It's really an honor, and I look forward to going on and interacting with you further as we go forward and to hear how all of the initiatives that you're busy with keep going. Thanks for making the time, I really appreciate it.

**Prashant:** Thank you, Roddy, enjoyed it.

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