



DECODING CHALLENGES & TAILWINDS FOR INDIA'S ENTREPRENEURS

Ft. Manoj Kumar



DECODING Impact

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[00:00:17] **Manoj Kumar:** While we are seeing very sophisticated innovation in telecommunication or mobility, we are not seeing the same level of innovation coming to market and say drinking water or sanity.

[00:00:26] **Rathish Balakrishnan:** Most smart people in India are solving for groceries reaching us in less than 10 minutes than solving for Tuberculosis.

[00:00:31] **Manoj Kumar:** Value creation becomes more important in this market. Innovators need to understand that their product will never be successful in the market if they cannot demonstrate value to their customers.

[00:00:42] **Rathish Balakrishnan:** I'm thinking of all the people who are listening to us, they're thinking Software, ChatGPT. There is innovation at a very physical, material, science level as well, which is an extremely important force multiplier for solving for things.

[00:00:55] **Manoj Kumar:** It is about competing with poverty and competing with climate change. How do you create a competitive advantage against poverty and climate change? Through full stack. So what Steve Jobs and Elon Musk have done, we have to do exactly that for the poor and the planet right now.

[00:01:08] **Rathish Balakrishnan:** Today, all the data tells us that the innovation investments in CSR (Corporate Social Responsibility) have been very low. Like we're talking about 0.3% of all CSR money being spent on innovation.

[00:01:16] **Manoj Kumar:** Innovation is unpredictable, right? It's risk taking and it requires a lot of trust. Historically, we have been trained in thinking binary. And we have to start thinking spectrum.

[00:01:26] **Manoj Kumar:** It's not black and white. There are multiple colours. The risk management models that the investment community uses need to be recalibrated, and redefined for the development sector.

[00:01:36] **Rathish Balakrishnan:** Welcome to Decoding Impact from Sattva Knowledge Institute, hosted by me, Rathish Balakrishnan, where we look at complex social problems and understand what it takes to solve them at scale and systematically.

[00:01:49] **Rathish Balakrishnan:** It's fair to say that there is a general zeitgeist of innovation and entrepreneurship in India today, more than any other time in my living memory. There are more entrepreneurs and more innovators who are trying to solve a wide range of problems in India. There has been a 300-fold increase in innovation investments in India, and India is actually the third-largest innovation ecosystem worldwide.

[00:02:16] **Rathish Balakrishnan:** And there are today, tailwinds in terms of governments investing in innovation, CSR law supporting investments in education, high net worth individuals and families investing in innovation ecosystems as well.

[00:02:29] **Rathish Balakrishnan:** However, it is fair to say that the problems that innovations are trying to solve, especially for people and the planet, are running faster than the solutions that we are creating. There is a need for a far higher and far greater level of engagement and investment in problems that innovations are trying to solve in the social impact ecosystem. And a large part of it also ties back to unlocking capital that can solve for some of these challenges as well.

[00:02:58] **Rathish Balakrishnan:** In today's conversation, we are going to talk about what the innovation ecosystem in India looks like. What are the structures and mental models that define how we understand it. And the need for unlocking diverse types of capital that can help us solve this challenge.

[00:03:15] **Rathish Balakrishnan:** To discuss this today we have with us Manoj Kumar, who is the founder of Social Alpha, a multi-stage innovation curation and venture development platform that has worked with over 300 startups. Having known Manoj personally, I know he spent a significant amount of time thinking about the structures behind the innovation ecosystem and truly what it takes to solve for innovation at scale in India.

[00:03:39] **Rathish Balakrishnan:** Manoj, thank you so much for joining us today for this conversation on innovation and unlocking capital for innovation at scale. Manoj, before I get onto the discussion itself, it'd be great to hear from you, your own journey, what brought you here, and to this focus on innovation.

[00:03:56] **Manoj Kumar:** Rathish, thank you so much. My journey, I have been a banker, I worked in the software industry. I've been an entrepreneur, did private equity, mergers, acquisitions, leverage buyouts, but you know, over several years, the desire to work in the development sector latently has been there. It was there but never got prioritised.

[00:04:19] **Manoj Kumar:** So very opportunistically at some point of time in your age, you start, and I really compare this with the entrepreneurs who are starting at 20 something that they are taking much higher risk than I took in my life, right? So I think about 10 years back, this latent desire to work in development became very strong.

[00:04:41] **Manoj Kumar:** And then I started talking to people in my network about how I can add some value. What can I do? The last thing I had in my mind was I didn't want to say that, 'Okay, I've done enough in the corporate business world. And now suddenly you know, I have this change in my philosophy and I want to now contribute or give back to society.'

[00:05:06] **Manoj Kumar:** That was not the reason. It was just a very selfish latent desire to do something and then I said okay, let me see what value I can add, right? And there are so many nonprofits, NGOs in the development sector, they're already doing great work.

[00:05:22] **Manoj Kumar:** So there is no desire to do another nonprofit or another NGO. No desire to compete with anyone. It's just that, what can I contribute? So I started engaging with foundations, philanthropic organisations, and NGOs and started learning more on the ground that, before even I talk about what value I can create, let me learn.

[00:05:42] **Manoj Kumar:** So I spent a few years, about three, four years, just exploring myself and exploring where I can add value. My biggest learning in that phase was that our development sector needs a little more innovation.

[00:05:56] **Manoj Kumar:** We have dedicated people, we have an organisation, we have great institutions working on the ground with communities. But if we could bring a little more innovation to the sector, it would be something worthwhile trying. And that is what I can probably bring to that.

[00:06:13] **Manoj Kumar:** So yeah, that's been the journey. And then we started off bootstrapping it a little bit, some experiments with bringing innovation and that learning was even bigger because it was not easy.

[00:06:27] **Manoj Kumar:** The gap between where innovation originates and where it is deployed, that gap is really, really huge. Now we are learning, trying, and iterating to see how we can bridge that gap.

[00:06:42] **Rathish Balakrishnan:** I want to come to that journey because many times, Manoj, people don't get a sense of the gaps in that journey today. And it's something that can spend decades and years and not months. And I don't think we have that full sense of time. But before that maybe just a framing question around what is different for innovation in the social sector as opposed to innovation in general?

[00:07:04] **Rathish Balakrishnan:** Because innovation is, you know, bandied about everywhere. But what would you say is a big difference in innovation?

[00:07:10] **Manoj Kumar:** You and I both are consumers of innovation, right? Every time we have a new phone, new gadget, new consumer goods. It's not a challenge to take innovation from lab to market, because if you see in the history of business since the Industrial Revolution, we have seen innovation.

[00:07:27] **Manoj Kumar:** They're starting with the steam engine and now we are talking about battery-operated airplanes for local mobility, all kinds of stuff. So we have built vaccines and drugs. So for me, there is a market. And there are players in that market from innovators to capital providers to policymakers to, you know, the entire ecosystem that promotes innovation, right?

[00:07:57] **Manoj Kumar:** So your higher education system, your R&D (Research and Development) infrastructure, their innovation thrives, right? In India, where is innovation thriving? We have seen huge innovation in digital public goods. We have seen huge innovation in e-commerce. And last-mile logistics. We have seen innovation in FinTech, AdTech, and AgriTech.

[00:08:18] **Manoj Kumar:** And globally, we have old classic examples of innovation I know and we have seen innovation in services and products in deep science. But what happens to innovation in a market failure case?

[00:08:31] **Manoj Kumar:** While we are seeing very sophisticated innovation in telecommunication or mobility, we are not seeing the same level of innovation coming to market in say, drinking water or sanitation or service treatment, or getting small and marginal farmers sophisticated equipment which are affordable, reduce the treasury and improve their productivity and efficiency, right?

[00:08:55] **Manoj Kumar:** Or diagnostic devices for last-mile health care, which can be used by a frontline health worker, have great user experience, but are affordable and make healthcare more accessible.

[00:09:07] **Manoj Kumar:** So that is where we see market failure. So for me, whether you call it social innovation or impact innovation, fundamentally you are addressing market failure, right? And when you address market failure, you then need to identify where all market failure is happening and what level of de-risking you have to do in order to attract the market.

[00:09:29] **Manoj Kumar:** You are not going to replace markets. You're not an alternative to the market, but you are trying to make this whole game more exciting and fun. And therefore, rewarding, for people who operate in the market, right?

[00:09:42] **Manoj Kumar:** So someone operating in, you know, EdTech or FinTech or airlines or telecommunication or pharma, can we attract them to work in primary care? Can we attract them to work in horticulture? So yeah...

[00:09:59] **Rathish Balakrishnan:** And I want to build on that market failure point, Manoj, because I remember once I was in a conversation where somebody said that more smart people in India are solving for groceries reaching us in less than 10 minutes than solving for tuberculosis, though the people dying of tuberculosis are far more. But the question is, why do these market failures happen?

[00:10:17] **Rathish Balakrishnan:** Is it just a capital flow that today there is money to get your groceries in under 10 minutes, but there is not enough money to get you a vaccine or a solution for tuberculosis?

[00:10:26] **Manoj Kumar:** That's a great question. Rathish, who addresses market failure? It's the government. The government uses taxpayers' money to address market failure. You remember, like in the 1950s, when India's private sector was not very evolved, we built the public sector, right?

[00:10:45] **Manoj Kumar:** Today, we are even building airports and ports in the private sector. But there was a time that the Airport Authority of India would be the only player in airports, right? So we have moved from the public sector to the private sector because we had policies, infrastructure, capital, everything available for that, right?

[00:11:03] **Manoj Kumar:** Today, like you see, the government would play less and less in business. Earlier state governments had their own PSUs (Public Sector Undertaking) and central government, we had the National Textile Corporation in this country 30 years back, right? We have seen the government playing the role of market maker when the market failure is there.

[00:11:23] **Manoj Kumar:** But see in today's context, the government role, while it is really important, is going to be suboptimal because we have a large number of problems and for a country of our size and number of problems, while the government will continue to address market failure, we need new players, right?

[00:11:45] **Manoj Kumar:** And whether these players will come from the mainstream finance world is a question mark, right? Now we also know that every investor in the market, whether it's an equity investor, a banker or a debt provider, will have their own cost of capital and risk-reward equation, right? So there, their own investors would expect them to deliver a certain level of risk-adjusted return on their capital.

[00:12:10] **Manoj Kumar:** So expecting a mainstream venture capital to actually do something where risk is unknown, unexplored, and you are still working on very early stage innovation is something, I would say it's not fair, right?

[00:12:25] **Manoj Kumar:** Because a VC (Venture Capital) is responsible for their LPs (Limited Partner) for providing a certain level of risk-adjusted return and they have a fiduciary responsibility to look after their LP.

[00:12:36] **Manoj Kumar:** So I think it's not only lack of capital flow. It's also not understanding the risk profile of those business activities because we don't have enough historical data or evidence, right? So 30 years back, nobody would do an airport or an airline or an oil exploration or refinery project.

[00:12:55] **Manoj Kumar:** But today they do it because they understand the risk. And then the investors, once they understand the risk, they're willing to bring in the money. So, if I do not think from a social or commercial point of view, and just think from a risk-reward equation, a risk that I understand and evaluate, is something that I can also underwrite if I have the capital, right?

[00:13:17] **Manoj Kumar:** So the market is also waiting for enough evidence that they can actually earn their expected rate of return on their pool of capital if they go to the agri-equipment market, right? Or they address climate change or they address new battery chemistry, right? I don't think they understand that.

[00:13:38] **Manoj Kumar:** Do we understand that? No. But we are learning that, right? This whole Social Alpha experiment is the process of learning early-stage risk in innovation, curation, and venture development. And at some point of time, we think that we can use a pool of capital to de-risk these companies and attract the market, right?

[00:13:58] **Manoj Kumar:** Our success is not dependent upon how much we do and how big a portfolio we build. Our success is how much market capital we can redirect to sectors that do

not get market attention, right? 30 years back, nobody would have invested in a PhonePe or PayTM.

[00:14:15] **Manoj Kumar:** Today, people are investing and they're not talking about P&L (Profit and Loss). They are talking about growth and customer acquisition, right? So I think you remember microfinance is a classic example. 25 years back, microfinance was only done by NGOs and nonprofits, right?

[00:14:30] **Rathish Balakrishnan:** Yeah. Yeah.

[00:14:31] **Manoj Kumar:** Today, you see my microfinance company getting mainstream valuations, right? Every big business and investor wants to have exposure in microfinance.

[00:14:42] **Manoj Kumar:** Microfinance is no more starved of capital. So I think what we call today social innovation is a sector that has not received enough attention, right? Other than the government. And I think this is high time investors start looking at it, but in order to get investors to the sector, you need to do a lot of work in understanding and explaining the underlying risk.

[00:15:09] **Rathish Balakrishnan:** I think you've hit the nail on the head, which is really this element of risk, right? And I would like to go one level deeper in that. Because innovation needs capital. One is the quantum of capital and the other is the risk appetite of the capital.

[00:15:23] **Rathish Balakrishnan:** And as you rightly said, risk is two things. One is, do I know the risk and is the risk too high? Sometimes I know the risk is too high. I still might take it. But if I don't even know what the risk is, then I can't even pick it, because otherwise, I can't hedge that in any form.

[00:15:36] **Rathish Balakrishnan:** And I want to maybe share my thoughts on, Manoj, why is risk indeterminate, right? One, I've spoken to you before, innovations by themselves have a success rate that nobody can really capture. Will this work or not work? We don't know. So that is one level of it.

[00:15:52] **Rathish Balakrishnan:** Second is, and this I wanted to understand from you, even the people that we build this for, their ability to pay, their ability to use, their ability to adopt, we don't know.

[00:16:04] **Rathish Balakrishnan:** So, you know, if it's really built for India, A, will I use grocery? At least we have heuristics to say, "*Achha ho jayega matlab*" (Yes, it will be done) but for the people we are building, I don't think the markets really understand, listen, what does the adoption sort of put probability, potential, et cetera, which is another risk that we sort of carry.

[00:16:21] **Rathish Balakrishnan:** And the third risk that we are carrying is returns. Financial returns of any form. Is that valid or are there other elements to this risk as well that you will say is important?

[00:16:29] **Manoj Kumar:** Yes. It's a really interesting conversation now, because sometimes the fear of the unknown is interpreted as high risk, right? Just because I do not have the ability to assess the risk, I would assume that it is high, right?

[00:16:44] **Manoj Kumar:** So the perception of risk is not necessarily real unless you iterate, do something about it, right? And second, the assumption that, for example, the poor cannot pay, right? These assumptions are so... I used to think like that 10 years back, right? Poor cannot pay.

[00:17:03] **Manoj Kumar:** Actually, you know, discarding a large population of the country, by assuming that they are price-sensitive is such a wrong assumption. People are not price-sensitive, people are value-sensitive, right?

[00:17:21] **Manoj Kumar:** If you want to build a product for small and marginal farmers, and you understand what problems they have, then you have to build a market-appropriate product, right?

[00:17:32] **Manoj Kumar:** Building a product that they can't afford, and then blaming them for not being able to pay for it is not... These are the same people who borrow money to get their kids private education or private health care and get into indebtedness many times, right?

[00:17:52] **Manoj Kumar:** During my learning phase, and which I continue to do right now, when I go and meet the communities, which we want to convert into a market for our startups, they very clearly articulate what their problem is and they actually give you a specification of the solution they need.

[00:18:10] **Manoj Kumar:** They may not use your language, they may not give it in your design thinking model, but they actually tell you what they need. And they are customers, right? In our sector, in the development sector, we have never treated them as customers.

[00:18:25] **Manoj Kumar:** One of the words you would have come across talking to people in the sector is beneficiary. The moment you treat them as the customer, even if it's a small amount of payment they are making for your product and service, your perception would change.

[00:18:41] **Manoj Kumar:** Then you start thinking about their affordability and their user experience. Are they getting the right user experience? Is this agri-tech product going to reduce the drudgery of women who are working in the field? Does it have the right design? Is it lightweight? Does it consume less energy?

[00:19:02] **Manoj Kumar:** The moment you start building products for your market and establish what we call product market fit, right? You have a market there, right? So, one, it's not about price. It's about value.

[00:19:16] **Manoj Kumar:** Customers on the top of the pyramid are not sensitive to it because I don't think someone buying a one-crore-rupee car is doing a value analysis because that person can buy another two-crore-rupee car, but someone buying a 15,000-rupees equipment for

agriculture will do value analysis because for that person, a 14,000 or a 16,000 actually is going to have an impact on their cash flows and their business model, right?

[00:19:44] **Manoj Kumar:** So value creation becomes more important in this market. That is where innovators need to understand that their product will never be successful in the market if they cannot demonstrate value to their customers.

[00:20:00] **Rathish Balakrishnan:** Yeah. And you know, 10 years ago Manoj, I was in XLRI where there was a gentleman called Joe Madiath who founded Gram Vikas. And I remember him vividly saying that we just get along by building poor solutions for poor people and wonder why they don't get adopted. And that framing has just stayed with me and I'm just saying it bluntly, saying, "*Tumhare aukaat ke liye, yeh kaafi hai*" (For your status, this is enough).

[00:20:25] **Manoj Kumar:** Absolutely. It's criminal, right? This is another level of injustice, saying that you are not using my product, right? And now I will do behaviour change, right? So, there's this big industry that wants to change the behaviour of the customer because their product doesn't fit them.

[00:20:43] **Manoj Kumar:** I really feel irritated sometimes about this whole thing of capacity building, behaviour change, and beneficiary analysis kind of stuff because we need to treat people with respect, even if they're poor.

[00:20:59] **Manoj Kumar:** And if we treat them with respect, we develop products that have the right user experience. And demonstrate value to them. I would totally agree with the statement that you made that, make good products for everyone, including the poor.

[00:21:16] **Rathish Balakrishnan:** Absolutely. Manoj, you speak to innovators every day. You see innovations, you know, regularly. As you look back, are there certain characteristics for innovators and innovations that you think is a very good indicator for success?

[00:21:31] **Rathish Balakrishnan:** Like from what you're saying, humility, the willingness to listen, the ability to go on the ground and be able to have an actual conversation is probably the secret to success. At least one of the characteristics that I see is important rather than sitting in a consulting room and saying, 'I'll make great PPTs to show how it will work'.

[00:21:49] **Rathish Balakrishnan:** But are there other qualities that you see both on the innovator side or an innovation side that you usually say, this is a good marker for success for us to solve this problem.

[00:21:58] **Manoj Kumar:** So all that you said is yes, they are all checkboxes. But there are two things I want to add.

[00:22:03] **Rathish Balakrishnan:** Yeah.

[00:22:04] **Manoj Kumar:** One very important, is the skin in the game. So I have seen the best of the innovators doing it with their own time and money and then raising capital, right? And

valuing their time and money and equity in the company, not diluting very early and not just giving away their equity to others shows a lot of confidence in their idea.

[00:22:26] **Manoj Kumar:** People in a hurry to raise a lot of money and take pride in diluting their company versus people who take pride in their idea product and their customer discovery and building for the right customer, right? So they would be a little more attached to their company and not in a hurry to dilute and raise money, even if there is a need for early-stage capital, right?

[00:22:48] **Manoj Kumar:** The second thing is that the best of the innovators are hands-on. They build, test, pilot, iterate, sell, collect the money, go and check the after-sales service, and check with the customer. They are not our typical managers who want a team on day one, and work with the people. So, some of my best startups are very hands-on. They know their stuff.

[00:23:19] **Manoj Kumar:** Sometimes I struggle where for example, innovators have only technology knowledge, and they don't understand the business, or business knowledge, but don't understand the technology. We struggle and then we look for co-founders, right? As a team, do they have complementary skills? But usually if it's a single founder, you will see they are mavericks.

[00:23:40] **Rathish Balakrishnan:** Excellent. And I want to build on the last point that you mentioned as well, Manoj, because today interestingly, when you say innovation and, I'm thinking of all the people who are listening to us conversing, they're thinking software, ChatGPT they're thinking, you know, digital models for doing things.

[00:23:56] **Rathish Balakrishnan:** But there is innovation at a very physical, material science level as well which I think is an extremely important force multiplier for solving for things. And again, I know you've worked a lot in that space, but innovation is not just a software innovation, but there is a hardware innovation.

[00:24:13] **Rathish Balakrishnan:** Is there a sufficient talent pool in India that is looking at those innovations today? And do we have an ecosystem for it?

[00:24:19] **Manoj Kumar:** It's a chicken and egg kind of situation, right? But let me give you a historical perspective. When we had our 1990s movement, services companies started in India, right? Infosys, Cognizant, all the success stories, innovation was all around the service model, right? Business process optimization, right?

[00:24:38] **Manoj Kumar:** And then this developed, you know when engineering colleges started introducing IT, computer science in their core discipline more than electrical, mechanical, electronics, et cetera, right?

[00:24:50] **Manoj Kumar:** Then we had this second wave post-internet, right? When we saw how the internet and app economy and the emergence of smartphones started, you know, models like e-commerce and car booking and food delivery and all that, you saw the next level of innovation there, right? Which was slightly higher in terms of value creation than just the IT services, right?

[00:25:18] **Manoj Kumar:** And then this, you know, international multinational companies just started building their products in India. So people started understanding that, oh, there are companies around the world who don't do outsourcing of IT services, but they actually build products, right? And then sell the products and build an ecosystem around that.

[00:25:37] **Manoj Kumar:** And then we have our own homegrown companies, right? Like from Tally to Zoho Corporation, building products from India, Freshworks, all great examples.

[00:25:46] **Rathish Balakrishnan:** Yeah.

[00:25:47] **Manoj Kumar:** I think we are now at a stage where all this is mainstream right? So software, IT, digital, AI, data science, ChatGPT, it's all mainstream, right? The next wave of entrepreneurship in India is going to be building products where there is a convergence of hardware, software, materials, etc, right?

[00:26:13] **Manoj Kumar:** So we have two big crises in front of us, other than poverty which is climate and health, right? You need to build drugs. You need to build therapeutics. You need to build vaccines. You have to do some stuff, real, right? Physical stuff. You need to replace plastic. The software will not eat plastic.

[00:26:36] **Rathish Balakrishnan:** Right.

[00:26:37] **Manoj Kumar:** You want to replace plastic, you need biodegradable, new polymers, and biopolymers which behave like plastic because we are so used to using plastic. We need packaging, we need to replace thermocol, right?

[00:26:52] **Manoj Kumar:** But thermocol's replacement will not come from digital, right? So we have to start now thinking about new battery chemistry because we have lithium in security, we need better energy density, and we need long-duration energy storage.

[00:27:07] **Manoj Kumar:** If you want to get away with the intermittency in solar and wind, then you need long-duration energy storage. Otherwise, you will continue to use fossil fuels. You need new materials to replace so many things, as I said, plastic, bio-plastic packaging material, et cetera.

[00:27:24] **Manoj Kumar:** We have little water, so we need to recycle water. At some point in time, we will create our own drinking water in our own house. Maybe we have water purifier today. Tomorrow we may have every apartment fitted with a circular water system. I don't know.

[00:27:40] **Manoj Kumar:** So, you know, at some point in time, we have to solve some of these problems that we created for the planet.

[00:27:46] **Manoj Kumar:** And you need material science innovation there, right? You need energy innovation, right? In healthcare, right? If we have to extend really high-quality healthcare service to people in remote areas, telemedicine will only work, right? But nowadays

you hear about digital health. Yeah, digital health will work but health is not only about digital, it's also about tissues.

[00:28:11] **Manoj Kumar:** It's also about blood and bone, right? It's also about fever and it's also about surgery. So there is a physical element to it, right? So you need a diagnostic device. You need a sensor that is probably built into the bangles of a woman, right? That communicates to you the haemoglobin level, right?

[00:28:28] **Manoj Kumar:** So now you have this small device, a lot of people have nowadays to do constant sugar monitoring. A lot of diabetic patients are now getting on their smartphones, right? This innovation can happen.

[00:28:39] **Manoj Kumar:** I'm sure the majority of women in rural India are anaemic. Some kind of a device can be built to just monitor the haemoglobin level. So what I'm saying is that a lot of innovation will require these boundaries of software, hardware, and material science, to be broken.

[00:28:58] **Manoj Kumar:** You will use software and artificial intelligence and hardware optimization or designing better hardware. But I think the next wave of innovation that we are seeing now, we are, we have a company in our portfolio that has built a 1.5 Tesla MRI machine. We have another company that has built a leather replacement using mycelium fungus.

[00:29:18] **Manoj Kumar:** We have seen that. We are evaluating a company that is creating micro-based colours so that the textile industry stops using chemical colours. You have a problem with effluent treatment or you have a problem of chemicals being used in textile. Maybe the dyeing industry has to change, the dyeing industry needs to adopt biodegradability, right?

[00:29:36] **Manoj Kumar:** Where will it come from? It will come from the real, you know, the physical science world. But the role of computer science and AI and data science will increase in this because you will do a lot of modelling, you will do optimizations. So I think this whole software-hardware thing, it is over now. We have to think about creating a solution, using whatever.

[00:30:01] **Rathish Balakrishnan:** And you're seeing enough innovators who were able to think, imagine, and do this today.

[00:30:07] **Manoj Kumar:** Yeah. They were hidden. They were hiding in government jobs, in CSIR (Council of Scientific & Industrial Research) labs, in ISRO, in IIT, IISC, right? So the moment they see, like yesterday I was talking to a scientist and she said, she never knew that there was an organisation that could help her take her solution from lab to market.

[00:30:25] **Manoj Kumar:** And then we are working with her in finding out what kind of a business model will emerge two years down the line. I think we are at that point right now where a lot of people are showing interest. They are excited about it. We have some role models and case studies. What do we need now?

[00:30:46] **Manoj Kumar:** And there is a policy framework right now, right? So it's that science and technology innovation is on the agenda at the state level, at the federal level, everywhere. So talent is there. The policy framework is there.

[00:30:58] **Manoj Kumar:** The missing piece is a new category of capital, the playbook that, that we have adopted in our venture capital world, that 10-year close-ended 220 model will not work here. That playbook will not work here. Because it's a new way of doing things. It's a new time to market. The risk is different, right? The mortality rate is different. Capital structure has to be different, right? And the rewards are also very different.

[00:31:28] **Manoj Kumar:** It's very non-linear, right? So if you invent the next diagnosis kit or the next battery it's going to be a very different reward for the entrepreneur as well. You will create a huge impact and you will actually get financially rewarded. So that also.

[00:31:45] **Manoj Kumar:** You know, the impact was like 10 years back, people would ask me, okay, what do you think? Like its impact or profit, right? For-profit or not for profit, right? Impact or commercial. These binaries are getting broken.

[00:32:00] **Manoj Kumar:** It's no more... you know, like in politics, no left and right. You have a spectrum, right? In colour, you always had a spectrum. So in nonprofit, for profit, this dichotomy that our law still recognizes that if you are for profit, you have one set of rules. If you are a not-for-profit, you have other sets of rules. This is getting broken.

[00:32:19] **Rathish Balakrishnan:** Yeah.

[00:32:20] **Manoj Kumar:** The capital pools will also be different now. They will have to behave differently for different startups in their life cycle depending upon what is the complexity of the problem they are solving and what stage they are in. So stage-appropriate capital, complexity-appropriate capital, that kind of blending will happen.

[00:32:39] **Rathish Balakrishnan:** Absolutely. I want to summarise what we've spoken about so far because it sort of helps us navigate to the next phase more effectively.

[00:32:45] **Rathish Balakrishnan:** So one, the kind of problems that we are facing, there are sufficient market failures that the government cannot solve where the need for innovation is critical. If you have to solve for health and education and agriculture, et cetera, it is not going to be by the hand of the government.

[00:33:02] **Rathish Balakrishnan:** It's going to be by innovation that is happening. I think what you highlighted is that there are tailwinds that are enabling that innovation. There is a policy framework right now, there is interest in momentum and making this happen, et cetera. But there are at least four challenges that we spoke about in this conversation.

[00:33:17] **Rathish Balakrishnan:** The first challenge is the mindset challenge, which is, if you don't believe that everyone deserves a good solution, you will build poor solutions for poor people. And that does not want to help us drive innovation at all.

[00:33:28] **Rathish Balakrishnan:** Second is indeterminate risk. It is not high risk. It's a fact that the perception of risk you know is indeterminate and hence there is an unwillingness to unlock capital resources all of that to make it happen.

[00:33:41] **Rathish Balakrishnan:** The third is the capability mix. We are looking at solutions that combine material elements, that combine the digital elements and so on. But then you understand business and you have to understand teams.

[00:33:53] **Rathish Balakrishnan:** This combination of talent, as you said, is not unavailable, but it's hidden today. And there are pathways that need to be established for us to be able to understand.

[00:34:03] **Rathish Balakrishnan:** And then the fourth is the structural challenge. We have dichotomies and false choices, private, non-profit, impact or profit, et cetera. And what we are trying to create requires us to separate all these false choices and say, what is the new paradigm for us to think of these as 'ands' than 'ors', you know, impact and profits, nonprofit and for-profit structures, et cetera, that I think is going to be very important.

[00:34:27] **Rathish Balakrishnan:** That sort of leads me, you know, to the next part where I want to talk to you a little bit more about what does this new capital structure look like? And I know you've spoken about a full stack architecture before. Why don't you tell us about it? What is this conceptualization of a full stack architecture for innovation?

[00:34:43] **Manoj Kumar:** So that is when we started, right? Again, a lot of time we start with assumptions, right? So I thought capital is the only problem, right? And I thought I'll raise money and invest in companies. Very oversimplified view of the sector. And then very quickly we learned that this is not the case.

[00:34:59] **Manoj Kumar:** We have several incubators and accelerators working in this space trying to provide different elements of success and support. The biggest learning was that if you take an innovation from the lab to the community, that is basically the customer base, right? That needs innovation.

[00:35:20] **Manoj Kumar:** One, it has to go through the market. That means you need entrepreneurs, right? Without entrepreneurs, innovation can happen in the high science laboratory, but taking innovation from lab to market requires entrepreneurs. And in the process, you are also creating the market by showing them the revenue stream, downstream right, from the community, which is using or paying for this.

[00:35:47] **Manoj Kumar:** So a lot of work actually, you have to do closer to the lab. Closer to the R&D ecosystem, right? What works in a lab environment is not necessarily ready for manufacturing production or even pilots, right? And that is what we in the industry call it incubation, right? That getting companies to a stage where they can be ready to go to market.

[00:36:13] **Manoj Kumar:** But that incubation piece has to happen closer to R&D, right? And a lot of testing in the sandbox and real environment has to happen there. And then once you are

at a stage where this venture can even think about going to market, you probably need venture capital.

[00:36:36] **Rathish Balakrishnan:** Right.

[00:36:37] **Manoj Kumar:** And when do you transition from that lab stage work that venture capital will not fund to a stage where venture capital is required, will depend upon again, the complexity of the problem and what sector you are in.

[00:36:53] **Manoj Kumar:** So it's not one size fits all. And therefore, it has to be highly customised for each and every innovation. So what will work for plastic is not necessarily what will work for battery chemistry or medical devices.

[00:37:06] **Manoj Kumar:** While the playbooks, the investment playbooks are designed for a homogeneous type of B2B playbook, B2C playbook, this is not B2B, B2C. Each and every scientific innovation is different.

[00:37:20] **Manoj Kumar:** And then when you pilot a test, you may go back to the lab for another round of iteration, right? So this build, test, iterate, and rebuild process is tried and tested in the software industry. So anybody who works in the software industry knows that you don't ship your software on day one.

[00:37:46] **Manoj Kumar:** We still get bugs on Microsoft Office, right? For 30 years we have been using it. So the software industry has actually figured it out. Therefore, software companies get investment from the VCH.

[00:37:59] **Manoj Kumar:** But the same level of sophistication or advancement in the hardware or materials or physical goods industry is not there yet.

[00:38:09] **Manoj Kumar:** It is there. I'm sure people who invented refrigerators and washing machines and water purifiers would have done it for many years before we see a TV in our house and phones keep iterating. Every year you get a new model with new features and new functions, right? And you never thought, 'Oh, this is a good feature. They should have given it three years back.'

[00:38:28] **Manoj Kumar:** So in places where you are addressing the problem of poverty and the planet, right? Climate, agriculture, water, or healthcare. You need the same level of ecosystem and capital support that was available to durables or automobile companies, right?

[00:38:47] **Manoj Kumar:** For example, if Indian Institute of Science develops a new molecule, which has the potential of converting into a cancer drug, it will just licence it to say a Novartis or a Pfizer or a Roche and they will then their internal R&D will do the lab-to-market, right?

[00:39:04] **Manoj Kumar:** So this lab-market actually happens in the corporation. A Boeing will have R&D and Lockheed Martin will have its own R&D, Tata Motors or Reliance Petroleum will have their own R&D. So this lab-to-market piece in mainstream business happens in the market and not in the lab. And every successful company has R&D budget, right?

[00:39:25] **Manoj Kumar:** Who will do R&D for this planet, for climate change, for energy transition? Who will do R&D for the women in Eastern UP who have 2-acre land and do not have equipment that helps them improve productivity on the field?

[00:39:44] **Manoj Kumar:** Who will do R&D for an ASHA worker who is going door to door collecting data? And not being able to do a quick test on this part and do a quick referral to the primary health centre. So mainstream business has no incentive today to do R&D for people and the planet.

[00:40:05] **Manoj Kumar:** Where they have incentive they are doing it. For example, mobility is getting enough investment. So I'm sure if you, I have not done the calculation, my guess is 80 to 90 percent of so-called climate investments are only in mobility. But who will do other things, right?

[00:40:26] **Manoj Kumar:** Since the transition between lab and market, since the Industrial Revolution, it is very well defined and it is through something which we call technology licensing regime. So you do R&D and licence it out. And that's what most labs do.

[00:40:45] **Manoj Kumar:** But when it comes to people and the planet, there is nobody to licence. So what people say, okay, I open source it. It's in my library. I published it. I patented it or I open sourced it.

[00:40:58] **Rathish Balakrishnan:** Correct.

[00:40:59] **Manoj Kumar:** So without having an architecture that integrates with the R&D ecosystem and then integrates with actual consumers or customers downstream, this transition won't happen, right?

[00:41:15] **Manoj Kumar:** So you have to mimic what is happening in the successful world of automobile and aerospace. You have to mimic that in the world of small and marginal farmers, micro and small enterprises, and of course, the forest, the land, the water, the Nature, right? Creating that parallel ecosystem requires a full-stack approach.

[00:41:41] **Rathish Balakrishnan:** Yeah.

[00:41:41] **Manoj Kumar:** So for example, you are inventor in a new EV, you will have to think about charging infrastructure, you will have to think about charging standards, but you don't have to think about tyres, because the mobile industry doesn't think about tyre and petrol pumps. They only think about internal combustion engines and the rest of everything is either hardware or software and they can figure it out, right?

[00:42:07] **Manoj Kumar:** There's an ecosystem. Where is the ecosystem for water resource management? Where is the ecosystem for sanitation? Where is the ecosystem for healthcare devices, right? And therefore, it was a compulsion for Social Alpha to start thinking for the stack.

[00:42:23] **Manoj Kumar:** It was not a choice. So what we have done over the last eight years, we have built this full stack architecture, which we call Social Alpha lab, Social Alpha ventures and Social Alpha communities to make sure that we are integrated from lab to market to community, right?

[00:42:39] **Manoj Kumar:** Will it always remain like this? I think it should not. I think we should be replaced by other players. I think over a period of time, Social Alpha should become irrelevant, because as more and more sectors become mainstream, our role will end there, right?

[00:42:55] **Manoj Kumar:** And more people will try to do this early-stage risk. So full stack is that. Full stack is in business, full stack is done by people who want to create closed systems like Apple or Tesla, Blackbox. I want to build full stack because that gives me my competitive advantage.

[00:43:11] **Rathish Balakrishnan:** Yeah. Correct.

[00:43:12] **Manoj Kumar:** Right now, it is not about competitive advantage. It is about competing with poverty and competing with climate change. That's the competitor here. So how do you create a competitive advantage against poverty and climate change? Through full stack. So what Steve Jobs and Elon Musk have done, we have to do exactly that for the poor and planet, right now. Because the competitor is very powerful.

[00:43:34] **Manoj Kumar:** Poverty, development, oppression and inequity. That's your competitor, right? Climate change is a competitor. How do you fight with them? So this is a compulsion to do that.

[00:43:45] **Rathish Balakrishnan:** I want to maybe rephrase and paraphrase what you said, Manoj, so that I have understood correctly, but also take an example so that it's very clear for everyone.

[00:43:54] **Rathish Balakrishnan:** So one, what I understand is that today there is a market, like you rightly said, when IISc creates a cell, Roche has an entire ecosystem to say, that cell to a drug, to a delivery system, to a services approach, sales, go to market, everything they will take care of.

[00:44:11] **Rathish Balakrishnan:** Anything that today we care about, where there is sufficient financial returns, markets are efficient enough to create those systems. You know, "*Paisa banane ke liye hai, toh karwa lenge na hum, kyun nahi karenge?*" (Because it's like, if there is money to be made, we will make it happen. Why won't we?)

[00:44:23] **Rathish Balakrishnan:** But if there is a way where we have to solve for poor, and I'm thinking we need it even more for poor, because for these problems, they're far larger. Today, that stack doesn't exist and we have to create it, but I want to explain the stack as I've understood it.

[00:44:36] **Rathish Balakrishnan:** One, you're saying that there is an R&D stage, which is the lab stage. Which is how do you help an innovator think about: Is this the right problem? Right solution? Is this built well? Is it tested? Is it patented? Compliant? All of that.

[00:44:50] **Rathish Balakrishnan:** And once and they probably sandboxed it to a point where they say, 'Hey, listen, this works on the ground to a certain extent.' The second stage is where they have to have some risk capital that can give them the chance to go try it out in a real-life scenario where they transform from being an innovation to a company in some form.

[00:45:07] **Rathish Balakrishnan:** They say now, "*Paisa liya hai, prove karna hai*" (I have taken money, so I have to prove). I have to pay back something. And then there is the third stage where they have to work much closer with the community and actually adopt it and build the community side infrastructure. If I use it, who services it, if I use it, who will support me in sales, all of that. Are these the three stages that you are referring to?

[00:45:29] **Manoj Kumar:** Yeah. So these are the three stages, but unfortunately, it's not a relay. You will see in a lot of publications where you see, you know, early stage this happens then you transition. So it's not like primary to high school to graduation. It's not like that. It's lifelong learning, right? You have to focus on R&D, focus on venture building and focus on scale-up implementation of scale up. This is the three stages that identify what is your primary focus in that stage.

[00:46:04] **Manoj Kumar:** However, the work that you do, the iterations that happen, the capital structure that is required is actually common. We have seen companies requiring philanthropic grant capital at the implementation stage.

[00:46:22] **Rathish Balakrishnan:** Correct.

[00:46:22] **Manoj Kumar:** ...At the venture development stage, and of course, at the early stage, right? So it is this relay of a stage and accordingly change in the nature of capital and its stage is a big misconception and only the manufacturers who are building the product understand it because this is their daily struggle, right?

[00:46:45] **Manoj Kumar:** I have companies who have actually raised venture capital but need our support to actually do a pilot on the ground. And also in this whole process, you have to actually see if there is a policy obstacle or is there a policy accelerator that can happen or a catalyst that can happen. And then go and do some advocacy with the policymakers that look, we are introducing this new solution.

[00:47:10] **Manoj Kumar:** It creates an impact in the lives of farmers or small businesses or patients, but it requires some support from you. Maybe subsidies, maybe market access support, right? Some kind of that. How do you leverage it? Government policy, government subsidies. So that continuum is there, right?

[00:47:27] **Manoj Kumar:** Early stage grants, for example, the Government of India has several schemes for early stage grants, but are those grants really enough? No, right? Are they

distributed across multiple startups? Of course, yes. Is it suboptimal? Yes. So how do you supplement that?

[00:47:47] **Rathish Balakrishnan:** And I think that's a very important point. And this comes up in multiple conversations I am part of as well. But one of the points I wanted you to highlight a little bit more, maybe with an example is this journey is not the same for every innovation.

[00:48:01] **Rathish Balakrishnan:** This journey is very, very different. You know, maybe a health innovation will probably be high on R&D, iterative, etc. And agri may be very different. Can you maybe take two examples of innovations that you've seen where the journeys have been very different for each of these across these phases and not just a 'one size fits all' approach?

[00:48:18] **Manoj Kumar:** Yeah, it's very difficult and it takes a lot of time.

[00:48:23] **Rathish Balakrishnan:** Yeah.

[00:48:24] **Manoj Kumar:** Voxelgrids, one of the companies in our portfolio made the world's first liquid helium pre 1.5 Tesla MRI machine that basically has the potential to not only reduce the cost of MRI scan, but also make it more accessible by making it mobile and also very efficient and has a much higher level of resolution than comparable machines from big players.

[00:48:47] **Manoj Kumar:** It started in 2016, the product development. That means the scientific R&D was done even before 2016, and we are in 2024 and we just got the CDSCO (Central Drugs Standard Control Organisation) which is India's FDA (Food and Drug Administration) equivalent; CDSCO approval for manufacturing last year. It had to go through clinical trials, regulatory approvals.

[00:49:08] **Manoj Kumar:** Now, will anybody fund clinical trials or regulatory approval? It's product development, then healthcare is regulated. So you have to go through those steps. And then you have to find partners for manufacturing or go to market, right? So the journey can be complex. It requires deep science understanding, like imaging physics in this case, but also the market is large, right?

[00:49:33] **Manoj Kumar:** So we actually could not raise money from any financial investor. The first investor who actually came after Social Alpha is a corporation. So this can be very long.

[00:49:46] **Manoj Kumar:** In agriculture, it's a completely different story. You can build a product very quickly, but adoption takes time. You build a product, say, in three years. 85% or more of our farmers are small and marginal, right? Their landholdings are small. You cannot go and tell them, use this product.

[00:50:08] **Manoj Kumar:** So even when you have built a product, you will have to do pilots. When you do pilots, we have different agroclimatic zones. So some pilots done in Tamil Nadu will not work in Eastern Europe, right? Soil type will change, the climate will change, water availability, water table, crop pattern, the crop they grow will be different, the cultural preferences would be different. So you will have to do pilots in those specific small geographies, right?

[00:50:34] **Manoj Kumar:** And see whether the product is suitable for the community, right? This requires risk funding because you are actually asking the community to change something in there, use new equipment or use a new method or use something new, and they will use it. And you will have to see whether you are getting the right results before you can ask them to pay for it, right? So you are trying to establish the market, but the market is not yet proven.

[00:51:07] **Manoj Kumar:** In the mainstream world, you can get funded for a discount and order from food delivery, you get one plus one free, right? So there is enough venture capital, which is available for adoption of B2C businesses. We all started ordering more because some scheme is there, some sale is there or something. There is no scheme for the farmers to adopt climate-smart technologies. Not only there is no scheme, there is no lender also.

[00:51:36] **Manoj Kumar:** If I go to a financial services provider and say you are talking about financial inclusion and that is why you have been created. I have these 50 farmers and they are already victims of climate change and we are trying to bring climate-smart technology to them, but they will pay in 24 instalments, not upfront.

[00:51:54] **Manoj Kumar:** For the last one year we are struggling with the lenders. They're not responding, most of them, right? So now you know what I need? I need to give lenders, who are experts, whose existence is about financial inclusion and lending, I am offering them counter guarantees. First loss, the guaranteed interest of them to do their business, right?

[00:52:20] **Rathish Balakrishnan:** To a customer, they already serve in some sense...

[00:52:24] **Manoj Kumar:** I have proximity to the customer because a financial services provider does not know how to assess the credit risk involved. They know how to assess the credit risk in selling you a mortgage or selling me a refrigerator in instalments, but they do not understand the credit risk of selling climate-smart agriculture equipment to a small and marginal farmer in Jharkhand, they don't know.

[00:52:50] **Manoj Kumar:** And if they know, they would say that my operating cost doesn't allow me to do that business, even if they're very digital, they would tell you that no, it doesn't work. And those who are ready, they will say I want 22% interest or 24%. So you know, the ecosystem is not there to promote a startup. So even if you are a great startup in Bangalore or Pune building agri tech, your deployment ecosystem is not yet ready.

[00:53:20] **Manoj Kumar:** So the journey is not only tough and complex, the innovator needs to understand it upfront, that it will take many, many years and an ecosystem support, right? To get me to a stage where I am on my own. The growth we have seen in this sector, where we operate, is not very well funded, so you cannot have the same growth hacking concept, right? This growth hacking doesn't happen here. It's slow, steady, test, pilot. You're dealing with health, you're dealing with agriculture, you're dealing with climate change. It's slow. The nonlinearity of impact and the nonlinearity of return are interrelated.

[00:54:08] **Rathish Balakrishnan:** Right.

[00:54:08] **Manoj Kumar:** If you really create non-linear impact, you will have non-linear return, right? It's not a low-risk, low-return, high-risk, high-return mainstream graph. It's an unknown risk. Right. And potentially very high return if you figure it out. So whoever figures out a one-drop blood test for five things, not Theranos type, but real stuff, that person is going to make money, right?

[00:54:36] **Manoj Kumar:** And this has been proven in microfinance. Unfortunately, the microfinance interest rate did not come down significantly. They have come down reasonably well, but microfinance at least is now accessible.

[00:54:50] **Manoj Kumar:** If you are a dairy farmer with the regular cash flows, you can access microfinance. But is it accessible to a farmer for agriculture activities? Not yet. The only loan that is available to a farmer is Kisan Credit Card. That's the only thing, right? So the ecosystem has to be built, right? You need commercial capital, you need philanthropic capital, you need ability to unlock debt, you need the ability to unlock public policy, you need ability to unlock subsidies.

[00:55:22] **Manoj Kumar:** And this is what we call blended finance. We don't call what is known in the market as blended finance. In the market, blended finance means you subsidise my risk because I cannot take the risk. So you are subsidising. No. Blended finance means unlocking various capital pools together and deploying them based on the need, stage appropriate, sector appropriate.

[00:55:46] **Manoj Kumar:** And it may not be the same for all, right? You can't wear an investor hat and give money to these people. Because even after you have invested in a company that is building medical devices for primary health care. Primary health care in this country is provided by the state government through their primary health care system and the procurement for primary health care system does not happen from the startup, right?

[00:56:10] **Manoj Kumar:** However, globally around the world, the defence procurement system works. If you are a Lockheed Martin corporation, the U. S. defence will fund you, right? But what about healthcare, right? So, you have to build not only affordable solutions with great user experience, you have to unlock multiple pools of capital, including public policy, debt, equity, everything.

[00:56:42] **Rathish Balakrishnan:** Absolutely. So, Manoj, I think the last point I think was the next question I wanted to ask, which is the types of capital. As you were speaking, I realised that there is just restricted grant capital that says, 'Hey, listen, I don't know where this is going to go. I'm going to give this.'

[00:56:56] **Rathish Balakrishnan:** There is capital for high-risk experiments. For example, for you to do pilots, there is equity capital, which is that I'm taking a share. I'm committing to growth, but I'll have an expected rate of return that I am going to get.

[00:57:10] **Rathish Balakrishnan:** There is working capital, which is, you need this capital for a certain period of time. I'm going to give this to you. There is lending capital, which is that 'Hey, listen, your customer might need lending loans.' And I'm going to offer that all of these types of

capital are actually very required. And I think by identifying all of these capitals and finding ways to bring these capitals.

[00:57:29] **Rathish Balakrishnan:** And as you rightly said, not linearly, *ki "Achha Phase 1 mein yeh chahiye, Phase 2 mein yeh chahiye..."* (Okay, in Phase this. In Phase 2, we want this..) But across the life cycle, you might just need them in different types and shares and ways. I think it's going to be very important.

[00:57:41] **Manoj Kumar:** And it's not utopian. Actually, this is how the world works. So if you and I start a company tomorrow, we know where to raise grant capital from, where to raise equity from, which bank to go for the loan. So for a mainstream business, this is done.

[00:57:56] **Manoj Kumar:** The problem is when you try to solve for poor, when you try to solve for planet, the moment you're trying to solve the problems of poor and planet, this larger capital architecture has not been designed for them, right?

[00:58:12] **Rathish Balakrishnan:** And a follow-up question to that, Manoj, is it also because of just lack of governing structures or operating structures? Because I'm thinking, Social Alpha has a certain scale. I mean, an entrepreneur is already carrying a mountain and solving. Imagine them having to resolve all of these problems and then run their organisations, all the problems of the poor and get the capital.

[00:58:33] **Rathish Balakrishnan:** So what parts of this should an entrepreneur be solving and what parts of it should institutional structures be enabling? I'd love to hear your thoughts.

[00:58:40] **Manoj Kumar:** If you see the history of the American banking system, one fine day JP Morgan called all the bankers in one room in New York and said we need to create governance, and the Federal Reserve Bank of the United States was actually born out of that meeting.

[00:58:57] **Manoj Kumar:** Elon Musk, while building Tesla, built North American charging standards that now every automobile company in the US will have to follow because he was the, you know, innovator and primary front runner, right?

[00:59:12] **Manoj Kumar:** So a lot of the time, innovators, entrepreneurs, who have this first-mover advantage and also the risk they take, end up doing a lot of this ecosystem building.

[00:59:25] **Manoj Kumar:** The first automobile manufacturer in the world would have thought about wheels and steering, but now you and I don't have to think about it, right?

[00:59:34] **Manoj Kumar:** Software industry, it has happened, right? The semiconductor industry grew because there were some early movers, AT&T, Bell Labs, and others who actually created Silicon Valley out of it, right?

[00:59:45] **Manoj Kumar:** So this whole question of institutional governance never starts before entrepreneurship. It always follows entrepreneurship. For example, if the Government of India starts a startup policy, then every state has got a startup policy, right? The startup policy or

innovation policy actually follows startup and innovation. It's not that first policy came and then startups came.

[01:00:12] **Manoj Kumar:** Somewhere in the world, people are innovating, right? I think in sectors like clean energy, in material science, in healthcare. As innovators do new stuff, then markets will respond, policymakers will respond, and governance structure will evolve.

[01:00:34] **Manoj Kumar:** For example, in the software industry or ISO or CMM, all these were later, right? So, you know, the risk takers, the entrepreneurs, they build the world, right? Historically. Traders running around the world, going from one continent to another, innovating all the time, building new stuff. This building and shipping is very important. Build something, ship something, then regulation will catch up.

[01:01:01] **Rathish Balakrishnan:** Hmm. There is this phrase for paving it backwards. Where they say walk and then pave backwards. You can't first pave and then walk. It's just not going to happen.

[01:01:10] **Manoj Kumar:** Wait for the ecosystem to respond, then that is a dream. You're basically creating a dream that if X, Y, Z happens, then this industry will grow. See, look at the pioneers of Indian industry, right? They would have started by building stuff. I'm sure when Jamshedji Tata built the Taj Hotel, there was no hotel management school in this country.

[01:01:32] **Manoj Kumar:** TCS or Infosys would have struggled to hire software engineers when they started their journey or even the regulations, right? So for example, internet happened and then a lot of data security and all these acts and rules about privacy and things because internet had to happen first, right?

[01:01:53] **Manoj Kumar:** So I think governance, organisation, infrastructure, ecosystem is very important, right? But the need for an airport will happen after someone is actually talking about building an aerospace industry.

[01:02:09] **Rathish Balakrishnan:** Absolutely. Two follow-up questions, Manoj. One, and both usually come up in our conversations with potential funders. One is, hey, the government already put so much money on innovation, why am I also putting in grand capital? And this is a question and they say, is it a leaking bucket problem?

[01:02:28] **Rathish Balakrishnan:** How do you see in the continuum of capital conversation, the role of the government and the role of the rest of philanthropy?

[01:02:34] **Manoj Kumar:** I think the rich and privileged of our country need to understand that tax that they pay, it's not enough for a country of our size and the complexity of problem, whichever regime it is, whichever party is in the power, there's not enough money, right? For science and technology innovation.

[01:02:51] **Manoj Kumar:** We don't have something like DARPA (The Defense Advanced Research Projects Agency in the US) with a large budget, doing moonshots, right? And also, the government money is very suboptimally distributed. The government does not act as a

capitalist doing resource allocation where Darwinism work is working in giving grants, right? It'll have to go.

[01:03:11] **Manoj Kumar:** For example, a government scheme would be that let's build a hundred incubators, let's give five crore to each, and let's see how they perform. That's the distributive nature of equity in policy making.

[01:03:22] **Manoj Kumar:** Markets have excellence in resource allocation. Markets would put resources most efficiently, right? And therefore, the rich who have a surplus to deploy need to allocate capital to innovation because they can allocate capital in a very different model than the state would do. They can use their venture capital, private equity type of knowledge to create a new category of capital that is willing to take the risk that the venture capital doesn't take. But still using the operating model of resource allocation that the venture capital does, right?

[01:04:01] **Manoj Kumar:** But adding a level of specialisation to that, that okay, if I am investing in batteries as a startup, it would be a different playbook than I am investing in a medical devices startup, which would be a different playbook, right? This level of thinking requires one specialist in the sector to the capital that is willing to take long-term risk. And it cannot come from this typical LPGP (Limited Partner, General Partner) model where you are managing other people's money.

[01:04:30] **Rathish Balakrishnan:** Yeah. Yeah.

[01:04:31] **Manoj Kumar:** Why has impact investing failed to do this? Because impact investing was using the same playbook as mainstream investing.

[01:04:37] **Manoj Kumar:** There is no difference. Same 220 model fiduciary responsibility. The only thing was, okay, we will also create them. The model that works and I am really, I don't take names in the conversation, but I'm very impressed with Nithin Kamath and Nikhil Kamath.

[01:04:52] **Manoj Kumar:** That is the model, their own money. They created a pool of capital. And in several of our companies, they are investing. They are investing their own money.

[01:05:04] **Manoj Kumar:** And for example, in Social Alpha, if I ever build a fund in Social Alpha, I will take money only from people who are giving me to manage their money and not in a typical LPGP structure right? But in a structure where they believe in our resource allocation capability, our due diligence, and our innovation curation, but not expecting a, eight-year, 20% IRR (Internal Rate of Return), that model will not work here because you are taking a very high level of risk, right?

[01:05:32] **Manoj Kumar:** You are creating new markets. So we have seen that the best investors in this sector are people who have money, but have empathy for solving the problems that people and planet have today and are willing to live with suboptimal returns compared to the risk we are taking.

[01:05:52] **Manoj Kumar:** We have situations where we invested in a sewage treatment, STP company. And we got co-investment from Rainmatter and a philanthropic organisation created for philanthropy has refused to put money in that company as a grant, right? So you see the difference.

[01:06:17] **Manoj Kumar:** A VC that is raising money from others with a promise of return will not take that risk. You have to think a little more philanthropically when you are creating the market. However, if the product is really successful and later investors come and there is a growth, everybody else will get paid.

[01:06:36] **Manoj Kumar:** So last year, we had an exit of almost four or five crore rupees in Social Alpha. Not because we planned for it, but because some of the companies managed to raise more money and became attractive to the corporations and we got... so exit in this case will be a really good situation so that we can recycle this capital, for the same cause right?

[01:06:58] **Manoj Kumar:** But incidentally, because you are taking a very high risk, right? And some of these entrepreneurs are doing fantastic. We are sitting on a 5x return. This 5x return is not because of our talent or our ability to pick the winners and invest the money in that.

[01:07:12] **Manoj Kumar:** This 5x return is because we have taken an option risk. And markets have accidentally rewarded us. So nobody gets a bonus because we made a 5x return in Social Alpha because it is not... it is just because you played in a market structure where nobody was taking a risk and you took the *risk aur aapke patte lag gaye toh aa gaya* (You got lucky and reaped the benefit).

[01:07:34] **Rathish Balakrishnan:** Right.

[01:07:35] **Manoj Kumar:** You worked hard. You did. You tried helping these companies with grant money. You help them in building their product. You help them with the pilots. You took them, you did everything, but the credit actually goes to People who actually brought in money in the company, right? Who, the entrepreneur who took the risk without the money, right?

[01:07:57] **Manoj Kumar:** A lot of credit goes to people who are actually building and shipping. We are just enablers here. We have to do it because nobody is doing it. If others do it, we will stop doing it. But entrepreneurs need a lot of support.

[01:08:08] **Rathish Balakrishnan:** Yeah. As I was thinking, as you were talking, the mindset for assessing indeterminate risk is different from the mindset of assessing high risk. And then I'll explain to you what I mean.

[01:08:19] **Rathish Balakrishnan:** Like when you said oh this enterprise has worked and that doesn't mean we have cracked it. That just means, you know, it's just, we just got our cards, and on a tangent, I was once in a Vipassana programme where they tell you nothing is permanent, right?

[01:08:33] **Rathish Balakrishnan:** And by day five, once you go through the programme, you get the sense of, wow, I've now cracked the Vipassana breathing technique, and they say, that'll also not last.

[01:08:42] **Rathish Balakrishnan:** So it is an indeterminate state and not a state where there is logical progression. And because when you do some things like this, sometimes there's a mindset to say that, okay, four of my enterprises have succeeded. I've cracked the code.

[01:08:53] **Rathish Balakrishnan:** But the code could not be cracked. It's an indeterminate risk problem. I think it is a very important thing. And I think the second reflection I had as you were speaking, and this is probably my bigger summary, is that sometimes we build a mental model on how something works and we force-fit all our thinking to fit that mental model... *ki mental model abhi linear hai* (That the mental model is linear).

[01:09:12] **Rathish Balakrishnan:** We say that I'm going to do R&D, then I'm going to do testing, then I'm going to do market. And then I'm going to scale and then I'm going to do returns. And that's our mental model for innovation. And so everything that we imagine is because of this.

[01:09:24] **Rathish Balakrishnan:** And I think what you're forcing us to say is that, listen, the mental model is actually different. It is a blend of various things at different stages where things are running in parallel. And unless we build the vocabulary for that mental model, unless we actually understand that things here are not a linear model, that there is determinate risk and there is a different type of support that is required in different ways.

[01:09:45] **Rathish Balakrishnan:** We will not build the structures that we need to make this happen. And I think that's a very, very important way for anyone who's investing in innovations.

[01:09:54] **Manoj Kumar:** This whole concept of uncertainty, iterative nature of product building and shipping, changing context, changing climate... Climate change, right? Now weather predictions are going wrong, right? It doesn't rain when the prediction says it will rain. Including in some of the countries that took pride in forecasting rains and drought, they can't do it anymore. Like it's not working. So this openness that, if A plus B was C, not necessarily next time A plus B will also again be C. And therefore, accepting and living in that randomness is very critical. And the financial investment models today do not model that risk.

[01:10:39] **Rathish Balakrishnan:** Exactly. Exactly. In the last part of this discussion, Manoj, I just specifically want to talk about the role of CSR and innovation. And I think this is important for multiple reasons because sometimes people think of money as money.

[01:10:52] **Rathish Balakrishnan:** For me, CSR is corporates' way of engaging in the innovation ecosystem beyond what they do in their own regular businesses. They bring a certain interest you know, and asserts a level of capital to do this.

[01:11:07] **Rathish Balakrishnan:** But today all the data tells us that the innovation investments in CSR have been very low. Like we are talking about 0.3% of all CSR money being spent on innovations. You've had a chance to work with companies today, where do you think are some of the frictions in innovations in corporate CSR capital coming together?

[01:11:26] **Manoj Kumar:** See, most of the corporates who have CSR budgets are big listed companies, right? And they are used to quarter-on-quarter reporting, annual reporting and all that. And their business model is based on the fact that they know their product or services and they know their shareholders, that they are already working with that, with a cadence, right?

[01:11:48] **Manoj Kumar:** They know their business inside out. Now, unfortunately, innovation is not as predictable as the... as you say that this month's target is 20% growth, and then we achieved 18%, let's increase the dealer commission and all that, right?

[01:12:05] **Manoj Kumar:** Innovation is unpredictable, right? It's risk taking and it requires a lot of trust, right? So, when you have a CSR project and you say, I want you to distribute 60 computers in five colleges around Bangalore, it's a very easy thing to do.

[01:12:26] **Manoj Kumar:** Procure, distribute, give proof of distribution and you have created an impact kind of thing. But when you are funding innovation, the willingness to fail. This year's annual report will probably have very short paragraphs and not many visuals about our CSR, right?

[01:12:47] **Rathish Balakrishnan:** Right.

[01:12:48] **Manoj Kumar:** Nobody likes failure.

[01:12:51] **Rathish Balakrishnan:** Correct.

[01:12:51] **Manoj Kumar:** Number one, you cannot deliver results in the short term. And number two, failure may happen. That I think is a deterrent, right? And the R&D head of that organisation doesn't run the CSR...

[01:13:08] **Rathish Balakrishnan:** Correct.

[01:13:09] **Manoj Kumar:** ...Probably the only person who understands innovation life cycle and has probably some failed projects as well as funded by shareholders.

[01:13:17] **Manoj Kumar:** And corporates don't like to talk about failure. They only want to talk about success because it impacts their market positioning. So if you want more money from corporations to flow into innovation through their CSR budget, we have to address this issue at the highest level you have to set aside some money in your CSR budget that you can just give as a grant to the organisation that is going to manage innovation for you. This is one.

[01:13:52] **Manoj Kumar:** Second thing that we have experimented and done well with our CSR partners, we do not go to them for our upstream work, because we know they're not yet ready for that. So hopefully you guys will be able to convince them to give us money for Social Alpha labs. But we go to them when we are deploying, because when we are deploying and doing pilots, we can give them in less than one year what they need.

[01:14:20] **Manoj Kumar:** If you see our CSR project, there will be more towards the deployment side, where we have a product and we are doing pilots, right? Or implementation

or market access, right? So all our CSR projects are with companies which are at a stage where they are ready to go to market or doing clinical trials or doing regulatory approval where we can show progress, right?

[01:14:44] **Manoj Kumar:** Unfortunately, while building the product, and if the product development takes two or three years, it will be a trust-based philanthropy. And therefore, a part of CSR money has to be set aside, which is just given as an innovation grant, right?

[01:15:01] **Manoj Kumar:** Part of the CSR money can go as a deployment grant, which can give them short-term results, which meet their expectation and their shareholders' expectations. But there are some progressive corporations who have understood the regulation very well. So they have given us money for deployment as equity capital, which is the most difficult thing, right? That can take money in CSR projects and deploy as equity in a company that is ready to take equity money.

[01:15:33] **Manoj Kumar:** That is a much higher level of enlightenment that the corporate CSR teams have, but we have had some success there as well. But yeah, maximum CSR money in our case, has gone into our downstream work and not in the upstream work. And regulation allows. It's not that it's prohibited by regulation, so it's basically space for people like you in Sattva to convince the CSR boards and CSR heads of companies to set aside money for innovation.

[01:16:07] **Rathish Balakrishnan:** Right. Right.

[01:16:09] **Manoj Kumar:** Today upstream, there's only one investor and that's the Government of India. And that's because there's so many and the upstream funnel is also big, right? As you start building the product, right? That is where you have a large number of companies. And towards the downstream, you have a smaller, narrower funnel because mortality is very high. So, upstream money actually gets distributed to many incubators, and many academic institutions, right? And therefore not enough.

[01:16:37] **Manoj Kumar:** Downstream, by the time you are at a stage where you are testing and have early results, you know, you start seeing some traction in the market also.

[01:16:46] **Rathish Balakrishnan:** Right.

[01:16:46] **Manoj Kumar:** Some traction. Not yet there, but some traction.

[01:16:50] **Rathish Balakrishnan:** Yeah. And I think the two divisions that you highlighted are very interesting. One of the hypotheses that I also had is that unlike a lot of other countries, where a lot of R&D investments are actually, or innovation experiments happen in academic institutions, we have standalone labs, CSIR, et cetera, which are largely quasi-government run.

[01:17:12] **Rathish Balakrishnan:** You know, they have government leadership, et cetera, really smart people, but in a way, isolated from the talent pipeline that we build as a country which is college, work, et cetera. Do you think that is also contributing in some sense for lack of interest among companies and others or in general collaboration difficulties in form?

[01:17:31] **Manoj Kumar:** No. We have been able to collaborate with CSIR as well as ISRO, right? So CSIR-NML (National Metallurgical Laboratory), we have a great partnership with them on aerospace and defence space. With ISRO we run a programme on space tech, so I think we have some of the finest institutions in the country.

[01:17:48] **Manoj Kumar:** The problem is that they are not yet integrated with the startup ecosystem, which we are trying to do. They're already integrated with the larger players. So I'm sure if there's a big aerospace company in India, they know how to deal with an error and vice versa. I'm sure there are national labs who have licensed their technologies to many big corporations, but we are seeing how we can build this parallel ecosystem where innovators and startups can also work with them and use the infrastructure, right?

[01:18:20] **Manoj Kumar:** For example, our IITs, IISc, CSIR labs, all of them have world-class infrastructure. They have labs, they have equipment, right? Can we get access to that? Because these labs and equipment were built with your and my tax money, right? It's a public asset.

[01:18:39] **Manoj Kumar:** India's large investment in R&D infrastructure is publicly funded, but it's in lock and key. It's behind the locks, behind the several levels of security and passage, right? How do we open it?

[01:18:52] **Manoj Kumar:** How do we get entrepreneurs who are building the future of India? How do we get them access to publicly funded, publicly built and managed infrastructure? So some of the institutions are very open.

[01:19:04] **Manoj Kumar:** Institutions will say, yeah, our gates are open. If you have a startup, bring them in, we'll open our labs, but somewhere you will have a struggle. I think one of the things is that India's R&D ecosystem has no prior experience of hiring off or spinning off startups.

[01:19:25] **Manoj Kumar:** Then with incubators being built in educational institutions, that process has started, right? So now incubators do this, but if you go to an institution and see what the incubators do in terms of value addition, can we increase that? Can we work with the incubators, cherry pick some of the best innovators there and provide them additional support that incubators may not, right?

[01:19:52] **Manoj Kumar:** Intercept an amazing work, right? They have laboratories, they have funding, they are able to raise money from the private sector as well as the government. But there is still that missing link, right? That they're not full stack, right? So we go and work in partnership with all the incubators, and in the process we have built our own, three or four incubators in the country.

[01:20:15] **Manoj Kumar:** The idea is to have an incubator as one of the legal blocks of this architecture. So this architecture is, you know, more modular, where you have an R&D ecosystem, incubators, accelerators, small investors, big investors, corporations. But somebody needs to orchestrate this whole thing and this orchestration is not required and we don't think it is required because in the mainstream world, this orchestration automatically happens.

[01:20:44] **Manoj Kumar:** Because the incentives are aligned, right? The incentives of all the suppliers in a mainstream business are aligned because they're all working for the same piece of revenue.

[01:20:56] **Manoj Kumar:** Here, how do you align incentives in the development sector, right? A large number of players who work in the development sector are non-profit. So aligning incentives in the nonprofit world is a big challenge, right? Therefore, the need for full stack and then creating an example.

[01:21:13] **Rathish Balakrishnan:** One other question Manoj that I often hear from CSRs is whether there is an unwillingness to support for-profit organisations. And then some part of this is just mental model thinking. Yeah, "*For-profit matlab profit ke liye hai*" (For-profit means it is for profit). Why am I using philanthropic capital? And that I think is only a question of journey.

[01:21:29] **Rathish Balakrishnan:** I mean, I'm a for-profit organisation myself. We have gone through this journey of convincing people that we are impact-focused. But I want to flip this and be a devil's advocate, Manoj.

[01:21:39] **Rathish Balakrishnan:** Raising capital is always hard. And when you know, some type of capital is easy to get, even as an entrepreneur, sometimes it's easy to say that, listen, I have a technology that can solve problems for the poor, but the same technology can solve the problems for a larger market and raise more money.

[01:21:54] **Rathish Balakrishnan:** Do you see there is a risk of mission drift also in for-profit organisations sometimes where after the point they're like, listen, I've run this fight, I've got the capital I need at the innovation stage but for me to go, have breakthroughs, maybe a certain level of mission drift will just help me unlock larger capital, solving a different problem for a different set of people.

[01:22:14] **Manoj Kumar:** So there are two, two things here, right? One is that mission drift is overly highlighted in case of people who are working on the impact space. The mainstream business also gets subsidies. They also get access to grant capital. They get very cheap land when the state governments attract them. They get tax holidays.

[01:22:33] **Manoj Kumar:** We don't talk about mission drift in that case, right? We only talk about mission drift in poor innovators who are just starting off. So, to be very honest, when they're trying to solve the problem and the problem is not changing, the likelihood of mission drift doesn't happen, right?

[01:22:49] **Manoj Kumar:** If somebody solves the problem of clean drinking water at an affordable price, and then that clean drinking water is also available to the rich and privileged, this is not mission drift.

[01:22:59] **Manoj Kumar:** UPI being used by a rich person is not mission drift, but UPI was designed for the right context for the poor, right? You can actually make a payment frictionless. You don't have to stand in a queue in a post office or a bank. You don't have to pay an

intermediary. You just can use your mobile phone and transfer money from one account to another.

[01:23:18] **Manoj Kumar:** This is the greatest example of social innovation in our country, isn't it? Now, a rich person can, I'm sure a rich person can also use UPI for its convenience. And if somebody does a wrapper around UPI, makes it even more user friendly and additional services on top of it and charges people, it's okay.

[01:23:35] **Manoj Kumar:** Solving for the poor and planet and creating that market, making the product affordable, accessible with the right user experience. After that, its adoption can scale, right? If you have a one-rupee test or a 10-rupee test for tuberculosis that can be done very quickly, let everybody enjoy the benefit of that.

[01:23:55] **Manoj Kumar:** See, innovation does not, if you innovate for the rich, it will not reach them. It took mobile phone 30 years to reach the poor, right? But if you innovate for the poor, it will reach up. Context-appropriate innovation will always go.

[01:24:08] **Manoj Kumar:** So on one hand, you have mobile phones that took 30 years to become *Das rupee ka recharge* (10 rupees recharge) and free data and 5,000 rupees a smartphone. It took 30 years. However, UPI took what? Six months, right? So yeah, who are you innovating for? That's very important.

[01:24:28] **Rathish Balakrishnan:** Excellent. I just want to end with this point that you made, Manoj, in two ways. One is that CSR money has two places. You can come into deployment, you can come into labs. And maybe roles for organisations like Sattva is even just to be able to frame this for organisations to say "*Yeh fixed deposit hai aur yeh working capital, you know, liquid loans type thing hai*" (This is fixed deposit and this is working capital, you now, like liquid loans).

[01:24:51] **Rathish Balakrishnan:** And do you want to look at liquid loans or do you want fixed deposits? And it is the capital that is the most patient. CSR does not have to really report quarter-on-quarter outcomes. So even the self-imposed stress can be removed. And I think roles for us as intermediaries is to be able to highlight these categories. Frame the risk returns for each of them and then tell them that there is really no external compliance norm that stops you from doing one of the other things. It's really attitude and mindset.

[01:25:18] **Rathish Balakrishnan:** But I'd come back to the question I asked earlier, Manoj, as you're solving this problem, if you had a wish list of things that you thought should be in place at an ecosystem level, what are some of the things that you would say, hey, we should probably build this.

[01:25:32] **Rathish Balakrishnan:** If India builds three, four things for everyone, for like 10 Social Alphas and thousands of innovators, maybe this entire journey would be faster. What would your wish list be for such three, four things that we need to build as a country?

[01:25:45] **Manoj Kumar:** Okay. As we build more products, science and technology-based products, they cannot be built on a screen, right? Like software products can be built by 10 people on cloud, but these products require infrastructure labs, right?

[01:26:02] **Manoj Kumar:** My wish list number one would be, can we make our national labs or our regional labs, which are funded and exist from public money, can we make them more accessible and more affordable to the start-up? Our incubators, because all of this has been publicly funded, but they need to stop rent-seeking, right? And they need to open it, right? People on startups are not going to destroy what has been built over the last 75 years.

[01:26:31] **Manoj Kumar:** They're going to use it and make it better, right? We have provided free education to people, right? We have provided subsidised food, education, everything. We have not provided innovators and entrepreneurs that level of access.

[01:26:45] **Manoj Kumar:** And this access has, maybe it's there, but it has to be very transparently published and propagated, right? To domestic philanthropy, the rich and privileged in India, they need to allocate capital for innovation.

[01:27:03] **Manoj Kumar:** And we have role models who have done this. We need more domestic philanthropy to write unrestricted capital for innovation. Like people like Nithin Kamath, Kris Gopalakrishnan, they have really done this, right? So it's not that there are no examples, but we need more.

[01:27:22] **Rathish Balakrishnan:** Yeah.

[01:27:23] **Manoj Kumar:** Three, corporations through their corporate CSR, they need to think a little more pragmatic about innovation. They need to understand that taking an innovation from technology readiness level three to six is also a positive impact, right? Investing in a startup in climate change is a positive impact.

[01:27:42] **Manoj Kumar:** Deploying a solution in a primary health centre is also a positive impact, right? So innovation life cycle has to be funded, right? And last is that we need to unlock non grant and non-equity capital also. It is not about grant and equity. It's also about subsidies, market access support. It's also about that.

[01:28:04] **Manoj Kumar:** And I don't know that's a much bigger problem. We have not yet started doing anything about it, but we have to solve the problem of that because our startups, our MSMEs, our small and marginal farmers, they have one problem. None of them have access to debt. This is the wish list.

[01:28:22] **Rathish Balakrishnan:** Manoj, this has been a super phenomenal conversation where we've covered a lot of ground on innovation. I'm going to do my best to just summarise the entire conversation and then leave it for the audience.

[01:28:33] **Rathish Balakrishnan:** Number one, I think we started by asking why innovation is required. And I think what we are clearly saying is that places where market failure happens,

where every human's deserved rights of clean drinking water, effective productivity, good health, and good education. It's important for us to solve for.

[01:28:52] **Rathish Balakrishnan:** It's not a question that we should ask whether we should solve for it or not. I think the fact is that the government cannot solve for it and we need innovations to solve for it. And I think that articulation is very critical. We talked about the four challenges in terms of mindsets, capacity, capital, and all of that in there.

[01:29:09] **Rathish Balakrishnan:** Then secondly, we highlighted how our current mental model for innovation may not be the mental model that will help us solve it, which is that innovation is not a linear journey.

[01:29:18] **Rathish Balakrishnan:** Number one, innovation is not where different people work at different parts of the value chain. It is intermingled. It is iterative. It requires different forms of capital at different points of time. And understanding that structure is going to be very important. And as you highlighted, oftentimes the first entrepreneur is paving it backward for the rest of them to do it like Elon Musk, in terms of building charging standards.

[01:29:41] **Rathish Balakrishnan:** Third, the role of CSR in this is actually huge. They can actually deliver money today. There are two pockets. While there's a greater willingness to support the deployment-related capital that is available where short returns are possible, annual reports look okay, there are these long-term capital investments that can be, make a significant difference, but having the mindset, being able to think of it as my fixed deposit investment in some sense of CSR, I think is going to be important.

[01:30:07] **Rathish Balakrishnan:** And I think the point that you made that infrastructure for innovation is very necessary. It would be a different problem if we didn't have it. But to have it and lock it and make it not available for people, I think it's probably a crime when we are solving problems like this, especially when they've been built with public capital.

[01:30:24] **Rathish Balakrishnan:** So how do we unlock infrastructure? How do we unlock domestic capital? How do we unlock CSR are essentially going to be big levers for us to be able to solve this. Manoj, you've been wonderful. Thank you so much for your time.

[01:30:37] **Manoj Kumar:** You have summarised it so well I'm going to just note it down and use it, right? One thing that probably comes to my mind is that historically we have been trained in thinking binary, right? And we have to start thinking spectrum in whatever we do.

[01:30:53] **Manoj Kumar:** In politics, we are already thinking spectrum, right? In for-profit, not-for-profit, we need to think about that. In sexual orientation, we need to recognize that. So I think increasingly people need to think that it's not black and white. There are multiple colours.

[01:31:09] **Manoj Kumar:** And therefore, the risk management models that the investment community uses need to be recalibrated, and redefined for the development sector. The development sector needs this capital, but it needs this capital on its own terms, that playbook will not work in this.

[01:31:29] **Manoj Kumar:** And that is where dissatisfaction will come from the investment community. Oh, these guys don't deliver. No, these guys don't deliver because they need a different type of capital, right? Then you can make the development sector more innovative and put it on a nonlinear scale.

[01:31:46] **Rathish Balakrishnan:** Absolutely. Absolutely. Couldn't have said it better. Thank you, Manoj. Thank you so much for your time.

[01:31:51] **Manoj Kumar:** Thank you. It's really good to talk to you.

[01:31:54] **Rathish Balakrishnan:** Thank you for listening to Decoding Impact. I am your host, Rathish Balakrishnan. If you liked what you heard, do check out the Sattva Knowledge Institute website, where we speak a lot more about innovation and the CSR's role in the innovation landscape.

[01:32:08] **Rathish Balakrishnan:** You could also check out Season 1 and Season 2 of Decoding Impact on Apple, Spotify, YouTube, or wherever you actually consume your podcast from.