1. To my understanding in academic realms and also human being always has great enthusiasm to attribute success and failures to one or few factors. So while definitely, success or failure is triggered due to one or two factors it continues the same path or sustains only when there are several multi dimensional factors which contribute. So for any enterprise or collective enterprise it should be very clear that there are multiple factors both internal and external which contribute to the success. So if we dwell into this to me all the reasons which various groups have propagated as reasons for success of cooperatives or producer companies are very relevant like - strong social leadership, legal environment and design features of the collective. One never can reduce and easily prove that a single factor is sufficient ground for promotion and development of collective. So criticism of those factors is not going to help the sector as even strong leadership and enabling legal environment is very much required. In fact NDDB's current success would not have happened without Producer Companies Act formulation by the Government of India.

2. You are right that the current generation of the promoting agencies both at Government and NGOs (including we at ALC India) level have not comprehended the important design elements and neither have really got answers for the critical level of resources that are needed to be committed to promote self sustaining, viable and significant PCs or Liberal Cooperatives. As rightly pointed out for NDS (with World Bank Support and NDDB own resources) is the right platform to promote and demonstrate the power of collective enterprise as Producer Companies. In fact, with the resource base that NDDB commands it will be a shame if they do not even show 2 or 3 such new generation producer companies which are strongly emerging. So therefore, I would suggest that while NDDB deserves appreciation and we from government and civil society deserve criticism a more closer look and assessment of the total investments of all resources (human, financial, physical, natural and social) these two set of different promoting agencies are committing need to be critically examined and discussed further for learning of the entire ecosystem. My personal and preliminary guess without even looking into hard numbers of investments suggests that NDS is making at least the following investments in each/single PC -

   a) Rs 15 to 20 Cr fixed investment into the Dairy Processing Unit without even the members investing a single rupee upfront to initiate the business.

   b) Rs 2 to 5 Cr into working capital from day one.

   c) Rs 2 to 3 Cr into promotion costs including building capacities of members, governing board and professional team which runs dairy on day to day basis and spearhead team costs.

3. While the government and we in civil society make these kind of investments -
a) Rs nil - in fixed investment until 3 to 4 years of PC promotion

b) Rs nil or if lucky may be few lakhs say upto Rs 50 lakhs as working capital that too by third year

c) Rs 30 to 40 lakhs into promotion costs including building capacities of members, governing board and professional team which runs dairy on day to day basis and spearhead team costs.

4. Therefore the point here is inputs and outputs needs to be clearly understood before they are compared. And i think it will be of great benefit to the entire eco system if someone of your learned caliber comments on these numbers more comprehensively rather than just stating that people are failing or do not understand the design thinking. The design thinking needs to be clearly brought down to distinct numbers which are easily understandable under several variables.

5. On the point of markets being the place where we need to start the design thinking is fully agreeable with a small caveat and also interesting point which i have come to learn over the years. When we work with small and marginal farmers and small producers, especially women, the products, commodities and produce in agriculture and horticulture are more or less essential items and not commercial crops. Of course, in few tribal areas or many places now cotton, soyabean and maize as crops have heavily penetrated which are more commercial crops than the subsistence crops like pulses, cereals, millets and basic oil seeds. When the crop portfolios are more or less subsistence then markets are really not a problem. The demand for essentials/subsistence crops is almost guaranteed and people struggle to buy the same even if prices are higher. So we never had a problem in deciphering what is the market for milk, vegetables, daal/redgram/green gram and other such commodities. Neither it is difficult to figure out the value added products that need to be planned for. So my point is to me it is not that we are not aware of the markets or do not understand the same. But the real challenge is really to work towards improving productivity, product quality in production and other issues which even NDBD by designing a NDS program with strong focus on back end services like ration balancing program, fodder development program etc admits that they have failed to improve productivity of animals after decades of cooperative movement and also investments at large scale. In fact, when we look at weavers’ cooperatives or PCs we find this issue more than the market acceptability or lack of it for the handloom clothes. This is again our learning while promoting India's first women weavers services producer company in East Godavari District which will this year record Rs 60 lakhs sales with profits/surplus. We never have experienced issue in marketing the handloom cloth produced. We have hardly done any discounted sales also of handloom clothes. So as important is to decipher the markets and products equally important it is to design the improvements in the backend like production and production practices.

6. The discredit to the blue print model and also some insights that one can draw by looking at one more point is of the total 180 odd (i do not know exact numbers) milk sheds and district unions done in 26 years of
operation flood with world bank finance I am not sure how many of them are really vibrant, self sustaining and surplus generating. A research on the same and data will be very interesting to understand and learn from as an entity who is deeply involved in promotion of PCs. The entire financial resources committed over time, the total subsidy element that was involved and the kind of human resources that went will give deeper insight on what is the scale and scope of investments are required to incubate the PCs. Similarly, it is important to assess the constraints that they faced in terms of legal environment, government control, strong leadership and also design elements. Another interesting fact is some of the erstwhile government owned district cooperatives unions in Andhra Pradesh who opted out of government control and choose either liberal cooperative act or producer company act are doing very well now. Again i am not sure about fully but a research on the same will give some more insights on the variables and design elements closely including how the changed legal environment provided options to them.

7. Cooperatives and producer companies need not be fascinated just by the turnovers and business figures at the enterprise level, they should start focusing on the net benefit and impact effects it is creating at member level. You have tried to touch upon the same by stating the challenge is to reimagine or redefine constantly involvement with members. This is going to be key for sustenance.

8. Also as corporate business entities they cannot ignore the underlying elements of resource sustenance - soil fertility or organic matter and water table levels or biodiversity elements of preserving hardy and important native gene pool which has been evolved of seeds and animals suitable to local conditions. Business of cooperatives and producer companies haves to factor in these ecological and important environmental features into design thinking to make a difference and keep sustaining themselves. Similarly, food miles and local economy focus has to be imbibed for the design of future producer companies.

9. Democratic governance of PCs has to be understood better. With technology better participation of the members in ensuring governance effectiveness is something which will have to evolve. With large numbers like 50,000 members that NDDB talks of in the new PCs, i am not sure whether the member interaction is just limited to pouring milk and getting paid for it or does it really needs to be more than that to reimagine the member interactions?

Sorry for such long response but I thought we in Cooperative and PC structure are really struck in few factors while the design of the collective enterprise requires multiple factors to be brought in and should be assessed much deeply and clearly with a futuristic perspective and long term sustenance in view.

Once again my apologies if I am not to state few things and also wanted to mention that you have always been an inspiration and also person from whom i have got deep insights for my work with PCs and Cooperatives.
Just forgot to add few more points on design thinking - Cooperative Development Foundation (CDFs) of which I am also one erstwhile employee, demonstrated design thinking in its effort to promote Mulukanoor Womens Cooperative Dairy Union under the liberal self reliant cooperative act of Andhra Pradesh. It has stood the test of time and is now 12 years old. Every year of its operations has been profitable/surplus generating and the union repaid CDFs loan of Rs 4.5 Cr within 4 years period. The design features of the cooperative union is as follows -

A. Markets are within 50 to 100 Kms in tier II and III towns and cities and therefore there is no need to look out for large cities like Hyderabad. So the idea is to be market leaders in small towns and cities and therefore exercise tremendous control over distribution chain and also the market dynamics.

B. Procurement of the milk is done in a compact radius of 30 to 35 Kms through a saturation approach. So the procurement cost is as low as 60 paise per litre which is industry bench mark and which no private industry can beat. And it has a membership of 20,000 members in 100 villages. This also reduced the sour milk proportion within the dairy.

C. Products have been launched under its own brand called Swakrushi and majority of the milk is sold as liquid milk giving substantial liquidity of cash at the Union level.

D. Local human resources have been systematically trained over a period of one year and provided employment in dairy. This again created new benchmark in the per litre costs human resource. There was some down side of this initially as the repairs and maintenance costs increased initially but now it has been overcome.

E. Upfront investment of Rs 4.5 Cr done by CDF was repaid by innovative financial product design which was to create transaction led deposits - under this each member saves 5% of milk bill with cooperative. The deposits itself is Rs 8 Cr and today the dairy has evolved a plan to retire excess capital with them. Surplus accumulated over period of time is also approx Rs 4 to 5 Cr.

F. Directors are drawn from clear constituencies and personal performance and constituent milk societies performance are monitored to understand Directors performance. Only active members are given voting rights and each election a voting role of eligible voters is prepared. Directors have staggered terms drawn by lots for the first time.

G. Each milk society publishes its annual report, conducts general body and distributes the same to every member. The first page of annual report starts with the performance of board of directors during the year. And the last few pages has detailed data on performance of each member on various parameters both physical and financial matters.

Some of these design features has helped it to pay one of the highest price to members for the milk procured. It passes almost 87 paise of consumer rupee to milk producer. It's annual turnover is Rs 75 Cr and bonus to members itself must be running into multiple crores and has 100% women membership. So as
compared to Mahi which is showing Rs 60 Cr turnover against 40,000 odd members it is showing much better per member results. And as I was project manager of the Union during the initial years of promotion, the investments are much lower than what NDDB has done to promote Mahi and other PCs.

However, as it marvels in the glory of good performance at the cooperative Union level it still could not solve the issue of productivity enhancement of animals and dairying business at farmer level. So performance in terms of impact on member economics is still to be fully established. So in order to establish a model for it we have now promoted strategic business units called livestock services centre which is a 24*7 service centre with a call centre. The idea is to provide all services at cost and with multiple options again using trained para vets and veterinary doctors. But it has had limited success. But we will pursue this model which primarily questions the traditional dairy cooperatives approach towards back end services to members. Usually, a technical service fee is charged on per litre from member and inadequate services are provided to the members. The efficiently organised front end procurement, processing and marketing business is not seen at the backend. So we want to promote strategic business units and bring in same efficiency in organising back end services. This back end model evolution has been supported by Rabo Bank Foundation.

May be a comparative analysis of the Mulukanoor Dairy Union against the new PCs promoted by NDDB is worthwhile for everyone. Especially the initial investments both in human and also financial resources will be interesting to look at. There are many drawbacks of Mukukanoor Union which i am myself aware of and in the new PCs we are promoting we are trying to avoid the same. But a rigorous analysis by senior people like you will help our work much. Will definitely write back a mail on the design features that we are pursuing in the 45 PCs which we are promoting and are in nascent stages. May be some of them are not fully tested and may require much more rigorous analysis to demonstrate its validity but nevertheless we have started the journey with a willingness to reflect and correct the same.

But i would still say that it is important to have a favourable legal environment, good sound leadership capable of looking at enlightened self interest for governance effectiveness, fertile grounds so that the emerging PC builds on to the social cohesion and skills latent with the producers as much as all other which I have pointed out in the mail of the Mulukanoor Womens Cooperative Dairy Union (MWCD).

MWCD was built on the social cohesion generated over years which both the Mulukanoor Cooperative Rural Bank (MCRB) and Thrift Cooperative Network (developed by CDF) developed in 25 of the 72 villages where it started its operations. The leaders nurtured by these cooperatives where the promoters and in fact the first Chairperson of MWCD was a thrift cooperative leader.

MWCD was possible because of erstwhile Andhra Pradesh Mutually Aided Cooperative Societies Act, 1995. And Mr A Praveen Reddy (President, MCRB), although not on the Board of MWCD, plays an active and benevolent role in balancing the interests of members and business. The General Manager of MWCD is the son of the General Manager of MCRB for past 40 years. So he has
seen and known cooperative world since childhood. In a way is a home grown manager like the way Jim Collins talks about in the book "Built to Last". (Incidentally "Built to Last" and his two other books ("Good to Great" and "How the Mighty Fall") focuses on design features of large corporate business houses which have sustained for 100 years and yet been industry leaders).

So my views are clear that apart from the design features (as discussed by you in your seminal work of Catalysing Cooperatives) which I have learnt from you I still feel that all other groups and their theories also contribute to the success and sustenance of the cooperatives. They may in isolated way not fully answer the question of cooperative/PC sustainability but do provide a one of the multiple dimension that is required.

Design theory should be able to co-opt all these dimensions into it to make it more comprehensive. It may be time for you to update the same with more parameters and dimensions. We Will be happy to contribute in to the research and to update the version of the design much more.

It should accommodate - need to look at performance from member impact perspective, performance in relation to sustenance of underlying resource - be it water, land, animal etc, increasing governance effectiveness through more ICT usage and many more things.