

## PRACTICAL TOOLS TO MONITOR MARKET SYSTEM DYNAMICS

Q&A AUDIO TRANSCRIPT

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## PRESENTERS

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## MODERATOR

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Kristin O'Planick:	Okay, great. Thank you. Now we're going to move into trying to answer some of the many, many questions you all have been asking in the chat box. Feel free to keep putting them there. We will get through what we can and if there are remaining questions we'll see if we can do some follow-up answering them and post some of the event resources that will be coming out from Microlinks next week. So let's see, the first question from Indra Klein, how many locations were included in the study? So Mike I guess this is a good question for you just in terms of how broadly you were looking when you were testing these tools.
Michael Field:	So we're in the middle of testing them right now, and Eric can jump in also because he was the one who started some of this tool testing, where is still where we're in now. So we are looking at multiple locations per tool, so down in the regions and some in the terminal markets near the large urban centers so we can get a sense of the kind of difference from more in the production agricultural areas and more in the consumption areas. We have larger markets, larger aggregation markets. I think we're not really decided where we're going to have all of these yet, and I think after we do some initial testing and try and get some clarity on how the tool really works. Then we'll probably sit
	down with Eric and figure out where we're gonna have all of these with the knowledge management team.
Kristin O'Planick:	Great.
Tim Sparkman:	Just to add, we had kind of selected tools, for example ground nuts in the Southern zone, the target zone for Feed the Future, there's lots of different markets, but we can't measure all of them. So we strategically picked one at least for pulse taking, recognizing that we'll be missing things that are happening elsewhere. I think the idea is if we see changes in one market then to go and test in some others. We're also trying to balance I think resources available to do these and as I think, mentioned at the top of the presentation that's a huge consideration.
Kristin O'Planick:	Okay. Next question, we had a couple people, Julian Baker and Indra Klein asking more about actual form for data collection and particularly if there's opportunities to use mobile applications here, and you can comment a bit on the practicalities of that data collection.
Michael Field:	So I guess I can start and maybe Eric and Tim can jump in from their perspective because they actually were out in the field and doing these initial tests. Now we're not using mobile mechanisms to do it by tablets and phone. That is always on our list of things to look at. Some of it is a resource issue. We have a range of tablets available to us, but those are being used more for the over 40. As most Feed the Future it's a pretty hectic structured set of indicators we have to track, which is quite a degree of rigor, and it has a lot of resource allocation to it.
	So the resource allocation allowed for this one is a little bit less. So that has an implication like Eric kinda mentioned before on how much we're gonna invest in tablet and things like that for some of the application. So we're looking at all kinds of issues around mobile systems for collecting data differently but not for this at this point.
Kristin O'Planick:	Anything to add?
Tim Sparkman:	I don't see a reason why you couldn't use mobile apps. It would be relatively easily done. What you also wanna do is you'd wanna come up with a scoring rubric to make it easy to take the information that's gathered in the surveys and make it comparable

	automatically without having to do individual reviews of this response and do a sort of more qualitative analysis of change between different instances of use of the tool.
Kristin O'Planick:	Okay, great. Our next question is from Anne Swindell. The third question in toll two is qualitative and open-ended, so how are the answers to the question used to monitor this aspect?
Eric Derks:	Tim, you can complete – when we were putting this together, that question more often served as a prompt to the respondent that now we're asking about investments you're making in operations today. So in order to be able to introduce that idea, answer some questions about what is investment in operational capacity since often with respondents you have to kind of define that or help them understand what that is, and then before answering the more quantitative question of on average what percentage overall revenue do you spend operational capacity. So that was not necessarily meant to be tracked but certainly as a prompt, but it could be tracked.
Tim Sparkman:	Yep, I agree. The original iteration was at least twice as long as this if not three times longer, so we tried to cut it down being as short as possible, but yeah, that question was so important to make sure that the respondent understood what we were referring to in transitioning from maintaining operational capacity to improving operational capacity. That's a useful check because if you're just asking a person quick questions and you say like 100 percent, 0 percent, or 90 percent and 0 percent or something like that, having the third and a second question there to give a bit more insight into whether you're looking at accurate answers is useful.
Kristin O'Planick:	Okay, great. Our next question is from Jarrod Goentzel. Regarding financial flows upon which information or traders giving these percentages, do they have financial accounting systems or are they using third party accountants for such financial information?
Michael Field:	I think Tim can probably add a little bit more, but I'll start. I think what we're trying to get at is not exact percentages. Clearly in a lot of cases these are informal finances and depending on which trader class we're talking to we're probably modifying the language that we've asked a lot, a little, hardly any, as opposed to percent as it's kind of framed in this presentation. The point of a lot of these tools is not precision, but it's about seeing change over time.
	In a lot of cases as we get better at understanding how to ask the questions we'll be able to kind of track over time changes in how they're responding to the question. That might spark some interest in this. The project could take either a deeper dive or trying to get other information to kind of say if there's something really interesting here we need to understand, or may even wanna move resources on how we are starting to change our interventions because of some of the information.
Tim Sparkman:	Yeah, I would just say these were guesses by entrepreneurs that will be interviewed during the piloting. Correct me if I'm wrong, I don't think anybody we interviewed had any kind of formalized accounting system with exception of the multimillion dollar Jude factory that we included. But nearly everybody else was doing their accounting using a spiral notebook. I think I had one entrepreneur who said "I'd like to use a computer, but then I've got to hire somebody young to do it for me." That was the additional employee costs he considered to be prohibitive.
Michael Field:	Yeah. They were all just very much market stall actors for the most part.

Kristin O'Planick:	Okay. Our next question is from Michael Cooper. Besides addressing different questions, what are the variations in the different tools? Which I think relates to a comment we received in the drafting of the paper about being able to adjust some of the aspects in the tools for local context. Maybe you could add.
Michael Field:	I'm not sure if I understand 100 percent, but certainly during the testing of the tools we're contextualizing them quite a bit and they're done in all local language, so there's a lot of contextualizing that's already being done as we're testing them in the local language. The way they're discussed right now in this presentation is more generalized from the initial cut, so maybe Tim and Eric can have more to say.
Eric Derks:	In changing them for this context we're looking at a particular function level for many reasons because there was lots of different value chains, sectors, trying to see if there was comparability and responses between different value chains. Another project might look at different nodes or places to be taking the pulse of these types of flows, information, finance and the like, and then would probably want to modify the types of questions relevant to those particular contexts.
	If you're asking questions about information flows, we came up with a basket of likely sources of information and even unlikely sources of information to see what the responses were, and especially in the stresses and concerns there was an effort to come up with questions about stresses and concerns that had applicability across these different types of traders, different contexts. There was going to be different stresses and concerns you're going to want to be asking about. So they're very adaptable in those cases.
Kristin O'Planick:	Okay, great. There was an interesting chat conversation between Jennifer Bremer and Scott Merrill. Jennifer was asking about the ability of the tools to measure competition, and Scott is positive that the churn tool would at least get at part of that. I wondered if we could get somebody from MEV on measuring competition and how the churning tool or others may or may not get at that.
Michael Field:	That's an interesting one. There could be some implications in churn if we're seeing that the changes in churn is related to providing better services taking away customers for example. So we're looking at competition a couple ways. One, we're looking at the qualitative nature of competition and some of this is done through the initial kind of strategic benchmarking tool in terms of how extractive the firms are, and then we're looking at it as an indicator relative to the systemic change we want.
	So as we work with businesses that we think are more inclusive in their strategies, trying to be more value added in the way they treat customers or suppliers, we look at amplifying their position in the market to create competitive pressure to push other firms in a similar direction. In doing that then we're looking at how the other firms respond to that.
	So we're trying to understand not only just competition in general but the force of competition, whether competition firm-to-firm really has as much weight as other things in the wider system, other forces, as well as see what the power we have, whether competition itself is a powerful force in terms of changing behaviors firm-to-firm. So we're looking at it quite a bit. In a lot of cases the lack of churn doesn't really have a lot to do with firm-to-firm competition. It has other issues, cultural issues that are localized especially when you're talking farmers and traders and the lack of churn between them. So it's a little bit more, there's a lot of complications in that I'll just say.
Kristin O'Planick:	Anything to add, Eric or Tim?

Tim Sparkman:	No.
Eric Derks:	No, I think Mike said that pretty well.
Kristin O'Planick:	Good job, Mike. Next question also from Anne Swindale. For tool number three, what is it you were wanting to see increased, payment in advance?
Tim Sparkman:	I think that goes back to the question of benchmarking. At the outset you wouldn't necessarily wanna see any particular change. What you'd wanna do most is get a solid understanding of where the delays are. Delays are hugely common in system dynamics. One of the biggest reasons, they all go back to our systems bible, which is Donna Meadows <i>Thinking in Systems</i> . One of the biggest reasons that humans have such a terrible time understanding systems dynamics is because of delays. Delays have a huge influence on our ability to be able to relate phenomena that we're seeing back to contributing factors, and they also have a big influence on what goes on in systems.
	So the tool would first map out where the delays are and the duration of delays and the movement of financial resources around the system. From that point you can look at changes over time. If it never changed then that in some senses would be fine because that's a dynamic that everybody is used to and everyone would have their business processes set up around the expectation that it takes three days to get payment, etc.
	If you suddenly saw a significant change in payment delays in either direction then you would know that there's some unpredictable dynamics happening in that market, and that those firms are gonna be dealing with a significant amount of uncertainty. So that would be a sign, keeping in mind that these are sentinel indicators, that would be a sign that the program should look more deeply at what's going on and what might be the source of the changes and what are going to be the effects of those changes over time. Mike and Eric?
Michael Field:	Just one thing. I think what Tim said is really quite important in that a lot of these we're looking for if there's a change, but with this issue of delays we are looking at the issue of delays, the issue of cash flows at different firms, and whether the delays create challenges for example if you're gonna, since you get into contracts at a large firm for example has trouble getting cash and wants some delay in payment, there could be ways to overcome that challenge using different financial tools.
	So the delay has multiple ways to look at it. In this we're really looking at if there's a change exactly like Tim is talking about it, but in other aspects of the project we're looking at if delays or how delays happen in payments and whether that is creating some tension in the relationship or is creating a barrier to relationships of which then new products, financial products like factoring or something could come in to lower those risks, those relationships.
Kristin O'Planick:	Great.
Eric Derks:	One other thing to add. Just wanted to bring back Mike's comment from the previous question, which talked a bit about project strategy and how these tools and findings feed into that. I mean the project is working select factors in each of these markets, particularly as Mike mentioned looking at those who are employing or demonstrating behaviors, practices that are more inclusive and trying to get others to crowd in and do likewise through a range of techniques of like showcasing these types of actors, getting
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	other actors in the chain to recognize the value of working with businesses that are more inclusive, etc.
	So as a sentinel indicator, whether it be payment terms, information flows, financial flows, we would expect to see a change in those patterns at least in the short term before things stabilize. Systems tend to operate often at predictable patterns, and then if there's change taking place, things fluctuate quite a bit and then stabilize again all within parameters obviously. I don't quite know enough myself about all of that, however each of these sentinel indicators would be able to capture we hope this fluctuation, which would indicate possibly that what the product is doing with these select actors and in other areas if having the type of effect its resonating throughout other actors in the system, and then the project can throw more resources at those things, which seem to be generating this resonance versus others. That's the idea.
Kristin O'Planick:	Great. Okay, Jean Schmidt, "Did any of the tools capture consolidation and the factors that drive it? I believe it would be critical in a family social driven business environment."
Eric Derks:	Not that I'm aware of per se. I think any kind of consolidation would have been caught in the changes in business models. We're talking to integrating or taking on other functions or going into other markets all together or expanding the product lines or markets they're active in. That would capture some of that information.
Michael Field:	I'm not sure, is he talking about consolidation in what context? It has multiple meanings. One of the challenges that you have when you have a lot of family owned businesses and one we're looking at is they're very aware and very focused on their ownership, the family ownership. So ideas like equity, joint ventures become more in that sense a firm taking on or engaging another firm in what might be a shared ownership structure you don't see very often because of the nature of family dynamics and owning these entities. So I'm not sure if she's talking about consolidation around the firm or if she's talking about something else.
Kristin O'Planick:	Okay. We have a couple questions about again the very practical application of the tools. Patty Hill wanted to know who uses the tools and how are they shared with market actors? I'll combine that with another question from Jarrod Goentzel. "Tell more about what you learned in developing the data collection tool, more about which kinds of questions were changed and what questions were most difficult for traders to understand."
Eric Derks:	Let me start off with perhaps Jarod's question 'cause I was looking at that earlier and pretty interesting. One of the things we struggled with quite a bit was, a lot of questions here, how do we do this most efficiently, shortest amount of time, and not bias the respondent? One of the things we were working on is how to train the respondent to focus on the question area. I'm going to ask you some questions about information and where you get it from. I'm gonna ask you about these types of information or this types of information, then ask the question. So prefacing it was something we learned because otherwise we were spending lots of time explaining the meaning of every single question and with each explanation I could see the introduction of additional bias into the administration of the survey. Tim? Eric?
Michael Field:	I can talk about what the vision is of using these tools. These tools are really as we kind of said doing a specific thing for the project in terms of trying to identify maybe an opportunity where deeper change may be happening and then we can take more resources in depth. So we have a small group of the kind of knowledge management team taking the lead on this because of what Eric just said. A lot of what we need to

do is teach them how to run, how to kind of manage businesses a little more dynamically. We just had a conversation today about one of the tools we used in the mango market and how difficult it was with going into a terminal market itself and the traders around terminal markets and DACA that they didn't really wanna deal with these intruders into their marketplace. So then we started to figure out how we could get access through known relationships to open up the doors for conversation. Having a kind of team that specializes in using these tools is where we're going with it. Kristin O'Planick: Okay. Great. Question from Phil Steffen, Mike again, just mentioned using these tools in terminal markets. So how applicable are these tools in looking into direct relationships or supplier-buyer contracts? Michael Field: So I haven't really gone into it yet, but the project is kind of two prongs to it that's kind of evolved as part of the strategy and part of what we're learning is the vast majority of crops that we're looking at goes through open market structures and not structures, so these tools are really focused on the wider system where most of our beneficiaries and most of the people engaged in markets-which is that we have a whole set of different activities around trying to build contracted structures and more structured markets. These are probably unlikely to work as well for them because in those markets if those structures start to take hold, they have almost an implicit closed-ness about them that kind of protects some of the people within there from some of the market sources because they have already structured fields, sometimes structured pricing. The lack of uncertainty kind of limits some of the market forces or system forces on how they would interpret each other, interpret the market. It's a little bit more known and predictable for them. So I'm not sure how useful these tools would be for it. We're using other tools for those mostly around governance issues and disputes issues and also looking at this issue of what crop and the structure of crops and markets relative to the uniqueness of the crop and the market are critical for even organizing structured markets. There's an enormous amount of potential for side selling. Probably for another presentation, but there's a whole set of other issues we're looking at around structured markets. Kristin O'Planick: Okay. Michaela Balan asked, "It would be interesting to see if the authors got into understanding why companies change their business model. Is this covered somewhere?" Tim Sparkman: No, it's not, but that would definitely be something that we'd wanna go back and look at is asking if you change the way you're packaging your flowers, you did this in response to what? So it's not a part of the formal survey, but we did in the course of piloting ask a lot of questions when we did get positive responses to questions about iterations in the business model and it would obviously be a great opportunity for learning for programs to go back and identify the points at which we see a decent volume of change by a handful of actors in the same market system, we go back and understand what was the influence in investing in that change. Kristin O'Planick: Okay. We have a clarification question from xavier preciado. The comment on how often each tool was used is very useful, but how often were the last two tools investigated? Well I guess since you're assessing them, how often do you think they should be investigated?

Eric Derks:	Good question. Hard to answer this necessarily. Partially it's a resource question. Mike can give more insight there. Some of it is obviously a seasonal question, coming from that region, so that gets done once a year and coming from that region, so that gets done once a year. Flowers is year-round and a bit more dynamic so we can try twice a year there. Same with some of the vegetables and ground nuts. Every six months some survey in those sectors I think would be useful, again resources. Mike?
Michael Field:	Yeah I think that's what we're gonna try to do, having a kind of dedicated team or a couple people on the team focusing on this. We think they should be able to do those, but as Eric said there's other extenuating circumstances, the seasonality of the crops that might make some of it not as useful to do more than once. I think after we do this first round and kinda get clear on what tools we're really gonna use, 'cause we know that there's a good shot the data is gonna be useful to us in terms of making project decisions. Then we'll probably set a schedule out and then update everbody.
Tim Sparkman:	Just chiming in on the last tool, on the changes in business model. In the paper that we wrote that's gonna come out shortly we include a table with each of the tools, and you can see what we're phrased each of the questions about the 13 different aspects of the business model in terms of the last six months. In the last six months has your business been offering any product or service to customers, and it was initially three months when we first started piloting it, but it's just such a short period of time for such significant changes and core aspects of business that we extended to six months, thereby got a lot more information. So I think for that one six months is probably a $-$ you wouldn't wanna do any less than that unless you're dealing with a hyper dynamic market, which most of us I think are probably not.
Kristin O'Planick:	Okay. Actually related a bit to some of your responses, there was a question from Jennifer Bremer. Did you find the market dynamics to be similar across different product classes or pretty much the same? Maybe some of your analysis isn't far enough along to respond to, but I thought I'd ask.
Michael Field:	This is Mike I think Eric might jump in also 'cause he already mentioned it. The markets that we're working in are sometimes very different and structure, nature and maturity, so we expect to see quite different dynamics in them. I think Eric you could jump in 'cause you saw something about mangos, or flowers was it?
Eric Derks:	I'm jumping in but not quite sure what you're referring to, unfortunately. I will agree the – we expect to see changes that we'll do the different surveys different points of the year. The sentinel indicators, the most exciting thing is to see if change is resonating, if it is creating new patterns at all, and I think that is something that alone we could compare across different markets in different sectors, and we'd even talked about funds allowing, being able to go in a different part of the country and look at other markets that are more dynamic and to see different types of patterns in those markets and are they comparable to ones in the South, and might we draw some conclusions about factors that are creating change there versus factors that might be useful in creating change in another part of the country, so there's a lot of other things we might be looking at.
Tim Sparkman:	I'll just jump in real quickly. I had mentioned the change, the difference between the innovation index scores for Jude and Flowers looking at flower retailers versus the range of actors that we interviewed in the Jude sector on that one. I think on most of them you'll probably see a pretty significant difference once the program is able to do a large-scale data collection effort. Again with a very small sample size in the piloting period, we were able to see pretty significant differences between different sectors in terms of for example we had changes in the business model index.

Kristin O'Planick:	Great. Thank you. Now we have a whole bunch of questions all getting at the same thing, which is what did you learn about ABC in doing this testing with the tools? Did information emerge that has or is going to lead to further invention or adaptation in the program approach? How is it shaping your thinking on ABC? I think there's definitely high interest in what next? What came of all of this? I know that's my key question too.
Michael Field:	Maybe I can start. I'm probably the one who has to answer some of it. So we still haven't gotten further enough along in some of the data on this to know how the project is gonna use it, but the panel is pretty aggressive at adapting new information we're getting all the time. So the vision is that as we get a survey, get some data, and we identify what the data is telling us that we would immediately move to have either some additional analysis organized or we would essentially see if it had implications on interventions or intervention strategies.
	The project is structured with a whole set of prequalified resource firm that we can go to for asking for help. So we have a whole set of prequalified research firm that the knowledge management teams have that have gone through initial set of compliance and that we can do short, quick turnaround in terms of quick competitions with them to look at some of these more detailed analysis if needed. So the premise of these is to simply have a window into a potential systemic change, and the project would use to make resource decisions and adaptation decisions.
Kristin O'Planick:	Great. Anything else to add, Eric or Tim?
Eric Derks:	Nothing to really add other than just to recognize the importance of that question of how it gets put back into practice because nobody wants to be doing a theoretical exercise, and I think we're all very interested and keen to see what happens over the next four months as the project comes to understand different data coming in and how it gets used.
Tim Sparkman:	Yeah, as well as what comes from other people applying the tool, so a last plea for those participating, to the degree to which you can and are interested, please go out and try them yourself and adapt them and the only commitment is that you have to come back and tell us about it.
Kristin O'Planick:	Okay. I guess the one thing that I'll add, an experience that we saw coming out of the Uganda agricultural project around the use of the churn indicator was showing them that change is happening too slow and not enough, which led them to further investigation doing a strategic review as to why that was or wasn't happening, and ultimately changed their theory of change. I just shared a link to a blog post, which also has a link to the full report that can show you how at least one of these indicators was very sentinel in nature and really led to some dramatic adaptation on a project. So we'll be curious to see what happens with ABC over the long term, and as our speakers have said, for those of you that start applying these tools, what you're learning to these feedback, and with that I think we're going to close.
	So thank you so much for joining us today and we hope that some of you can put these tools into practice immediately. That would be fantastic. The paper detailing all of these tools will be shared with the event resources in the coming week, so keep your eye open for that in your inbox, and over the next two months, Leo will be publishing a couple more products in this area, one on the results of indicators of systemic change field testing in three different countries, a paper on the indicators of systemic change guidelines, and an evaluation framework for market systems dynamics facilitation.

Micro Links will be sharing all of these, so keep your eyes peeled. In our newsletter they will definitely come through, and our next Micro Links event will be a special joint event with Agrilinks on September 1<sup>st</sup>. This event will share novel research on sustainable poverty escape that was done in Uganda, Bangladesh, and Ethiopia. So learn with us what factors really matter to enabling healthful resilience and risk mitigation. The invites will go out to the Micro Links and Agrilinks mailing list soon, and that's all for today. Thanks again, everyone.

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