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The "why" behind behaviour: Mental Models research and behaviour change

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All blogs

A smart way to understand underlying beliefs that drive behaviour.

Power structures, influence, and individuals' judgments and decision-making are all key drivers of economic and social systems. But how often in economic development projects do we take the time to research and understand these drivers in order to have an in-depth, data-informed understanding and firm grasp on their system- wide interactions?

One economic growth project, USAID's Agricultural Value Chains in Bangladesh, realised that they held many assumptions around these behaviour drivers and designed their interventions and activities accordingly. But these assumptions came largely from personal interactions with a limited number of farmers, or value chain analyses that spoke more to the decisions farmers make, rather than the logic and reasoning behind those decisions.

To be more effective at addressing challenges within the pulse seed value chain, the AVC team must influence farmers' behavioural patterns in order to catalyse systemic change. To do this, it was fundamental to first understand what drives pulse farmers' behaviours and decision-making. Prior to leaping into designing interventions, AVC wanted to answer a few important questions:

> How and where are pulse farmers accessing seed?

> What factors are important to pulse farmers when selecting a seed supplier?

> Why do pulse farmers choose the seeds and access points that they choose?

The team realised while they had many assumptions around these questions, they had never been grounded in research, so they decided to ask the experts... pulse farmers.

Methodology

To understand the "why" behind pulse farmers' behaviour, the AVC cross-cutting team – with support from myself (an agriculture marketing and communications strategist) collaborated to investigate pulse farmers' decision making processes. Our first analysis was of the study itself and what methodology would best help us achieve our goal. Through discussion, our study goal evolved to become one of identifying the "why" of pulse farmers' behaviour when it came to accessing seeds. We saw that the familiar research tools represented by surveys, focus groups or individual interviews would not be suited to this task. Spreadsheets of data about farmer attitudes, knowledge and even values could not provide the insights needed by the team. We wanted to understand underlying beliefs that drive behaviour.

After researching numerous applications we selected Decision Partners' Mental Modeling Technology™, which offers evidence-based, science-informed processes, methods and tools for understanding and addressing mental models, behaviours and judgments. The methodology uses a software to systematically organise and map out complex thinking patterns, allowing the team to understand tacit belief structures. The platform also provides the opportunity to conduct baseline research and, then incremental assessments once interventions have been implemented to determine if farmers beliefs have shifted.

Psychologists have studied mental models since the 1930's in order to better understand and influence how people learn, make judgments and form decisions that play out in their behaviour. It was no surprise that we found that the phenomenon of mental models and the methods used to study them were new to many of our team, whose previous training was in business, marketing, communications, or international development not the social sciences.

Mental models are the tacit webs of beliefs and their underlying rationale that people draw upon to interpret and make inferences about issues that come to their attention. Though they are biased, made up of incomplete facts, misunderstandings, past experiences and intuitive perceptions, mental models are nevertheless powerful influences on how people approach and solve problems. Essentially mental models are key drivers of behaviour. Our team got it immediately.

What keeps farmers up at night?

As development practitioners it's easy to fall into the trap of assumptions based on past experience. Sometimes, we think we know the answers to farmers' challenges,

such as access to information, lack of awareness, price, finance, training etc., but do we always truly understand? To counteract our own bias we heard about the issues that keep farmers up at night directly from the source.

Our selected methodology offered a research process that the team could easily apply and would provide an opportunity for pulse farmers' salient issues to be brought to the forefront. This is essential! We didn't want to direct the interview process by asking about issues that we deemed important. We wanted to hear and learn from them. This is one of the reasons we selected the mental model technology as it involves asking open-ended questions to draw out farmers tacit webs of belief (mental models). By using the mental model platform the information is sorted, mapped and weighted to provide a greater understanding of the mental models farmers draw upon to interpret and make inferences about issues that come to their attention.

Hmmmm…. I didn't realise that was important

Our research indicated that the systemic drivers around access to pulse seeds are trust, and convenience of the purchasing location. Farmers prefer to purchase seeds from a trusted partner within their existing social network.

Understanding the "why" behind pulse farmers' behaviour informs us how to respond. For example, AVC's seed interventions will be driven by trust and social networks, such as strengthening local seed retailers by linking them with seed suppliers who can provide better product information, partnerships with lead farmers, and improved information sharing within farmer networks.

We also learned that due to illiteracy, pulse farmers are generally not reading the package, but they are using experiential strategies to verify product quality including size, color and taste. Physically experiencing a product was a strategy used to determine if it was a quality product, which fostered brand trust.

Which comes first mental models, behaviour or systems?

Mental models and individual behaviour shape the system, and the system shapes individuals' mental models and behaviour. To understand what is going on in the whole system it is mandatory to understand individual behaviour, and we have to inquire into individual behaviour to learn about the whole. Systems and patterns of behaviour co-evolve.

One strategy to change the direction of the system is to shift the patterns of behaviour. Behaviour is changed when the mental models, which guide farmers' actions, are altered. However, many behaviour change initiatives or project interventions fail because instead of shifting beliefs they try to alter actions. For

example, creating awareness about a new variety of seed through radio ads might temporarily shift an action and encourage early adopters to purchase. However, providing samples of the certified seeds to a lead farmer so he/she can grow it and experience increased yields will most likely lead to a shifted belief about the value of certified seeds. Shifted beliefs are more durable and more likely to drive systemic change than shifts in action.

Mental Models in action

In order to utilise the Mental Model research, AVC partnered with Partex Agro, a Bangladeshi input provider. Using market facilitation strategies which included partnering with a local advertising agency, the team redesigned the packaging for mungbean and groundnuts seeds. The packaging, which was formerly very colourful and in English, was revised to be written in Bengali, use a simple design including a single colour for easy identification, and a transparent window so the seeds are visible.

The AVC team continues to work with Partex to improve the packaging for other product lines and pilot new marketing strategies designed to educate the consumer and build trust.

What's next

This research project emphasised to our team the value of taking a closer look at behaviour as a key driver of social and economic systems in order to develop more systemic interventions. Future marketing interventions will continue to be informed by our three key understandings.

1. Mental models drive beliefs

2. Shift beliefs not actions

3. Focus on opportunities to create new beliefs and patterns of behaviour.

The AVC team will be posting future blog posts with updates on how we have put our mental model research into action through new project strategies and interventions.

> View the Agricultural Value Chain (AVC) Activity entry on BEAM's Programme index