

A CASE FOR MORE QUALITATIVE STUDIES IN AGRICULTURE



In this blog Aditya and Bhuvana argue for mainstreaming qualitative research methods in agricultural research. The blog elaborates on the misplaced, but predominant, notion of superiority of quantitative methods, particularly in Social Science. The choice of method should be a function of the research question and not the other way around. The purpose of this blog is to convince the readers that there is always ‘room

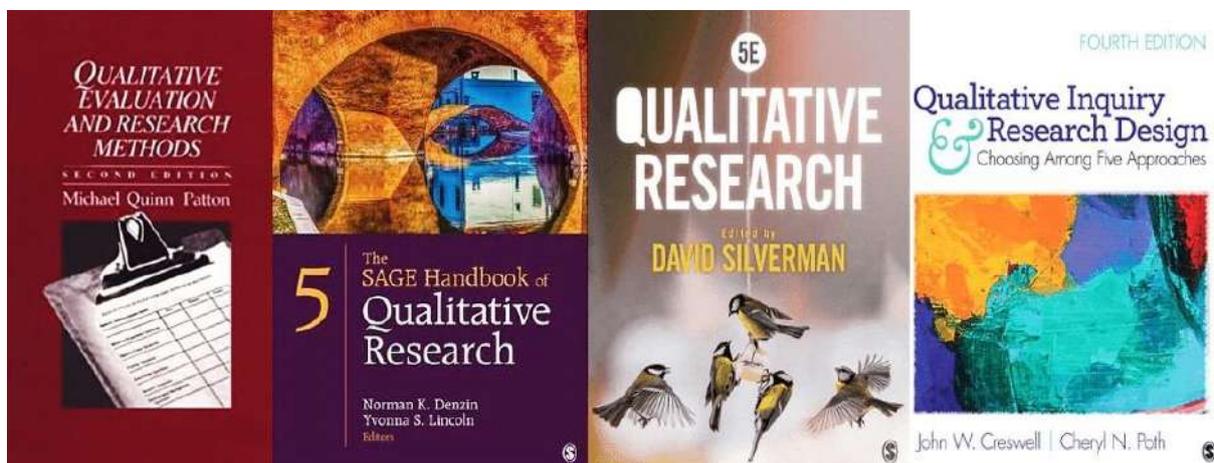
at the table’ for qualitative studies in agriculture, and as a discipline we gain by embracing a mixed methods approach.

BACKGROUND

I¹ have always been fascinated by qualitative research methods, but I have rarely used one till now in the seven years of my research career. I always end up visualising myself presenting a research grounded in qualitative methods at a Social Science conference – I can literally imagine frowns from my colleagues listening to my presentation and some whispers, “Is it really economics?” or then again “Is it really science?” or “These are merely statements, how do you know they are true?” There is a fascination and a strong preference for quantitative methods among researchers working on social aspects of agriculture. Most courses on research methods have exclusive emphasis on quantitative aspects of research. Use of qualitative methods is limited, even when used, the rigour of such studies in general is very poor. In this blog, we question this prejudice about quantitative methods being in some way superior to qualitative methods. We argue in favour of having more qualitative studies in agriculture.

WHY QUALITATIVE STUDIES ARE IMPORTANT?

Let us start with our over the top love for quantitative studies. We agree that these are straight forward methods, amenable to statistical testing and lends itself to generalization. However, we should also accept the downside of using only the quantitative lens of enquiry. For instance, consider the most common adoption studies. The typical question to start with is ‘what determines the adoption of new technologies?’.



¹This blog is written in a conversational tone, with ‘I’ and ‘We’ being used interchangeably.

In a typical study, authors have a prior hypothesis that socio economic variables such as gender, age, education, income, and some technological aspects (mostly perceived) affect technology adoption. Data is collected on these variables, a model which fits the data is used and interpreted based on statistical significance. Most of these studies end up with conclusions, such as younger farmers are more likely to adopt technologies or educated farmers are more likely to do so. In fact, one of my senior colleagues from Statistics used to tell me that social scientists can justify anything; if the coefficient for age is negative, they will interpret it as younger farmers are more entrepreneurial and risk taking, and if the coefficient is positive, interpretation is changed to older farmers, whose experience leads to adoption! This is analogous to the narration in Box 1.

Box 1: Openness in Science

"A traveller to a new land came across a peacock. Having never seen this kind of bird before, he took it for a genetic freak. Taking pity on the poor bird, which he was sure could not survive for long in such a deviant form, he set about to correct nature's error. He trimmed the long colourful feathers, cut back the beak, and dyed the bird black. "There now," he said, with pride in a job well done, "you now look more like a standard guinea hen". Patton (1990, p. 347)

Nevertheless, what policy input can we give to such studies? Is it not already known that education is important? We already know the gender roles and challenges that women-headed farms face. What is it contributing to the progress of the theory or the subject matter? I am not criticizing every study here, of course there are very good papers on adoption using quantitative methods, but I am trying to underscore that not every quantitative paper with huge dataset and sound methods is useful or insightful. On a lighter note, Aditya has created a meme (Figure 1) on things that we find funny in our research papers.

Please allow us to present arguments in favour of qualitative studies. Many of you with a strong background in quantitative methods think that qualitative methods are easier as the sample size would typically be very small and one needs to worry about statistical significance (I used to be one of those, not now!). To do a qualitative study is easier, but it is extremely difficult to do it well. It is more complex, messier and time consuming than a typical quantitative study, but more on this later. Question at this point is: what are the advantages of a qualitative study when done systematically?

Most qualitative methods are inductive (not all, though) and they aim to understand the world based on lived experiences. Many of the constructs which cannot be typically defined or measured as variables can be extracted in this case. Here, each situation is understood on its own, and interpretations are drawn to best explain the scenarios, rather than trying to fit the situation into a pre-existing theory. When we try to fit a given scenario into a pre-conceived model, there are chances of mis-representation and we learn little about the problem. I think this passage from Patton is very relevant in this context.

So, qualitative studies are more interpretive, could explore human behaviour at a more fundamental level and understand farmers' behaviour from their own world view. These studies could be very useful on their own, or in combination with quantitative methods. Before detailing the typical characteristics of a qualitative study, I think it is helpful to discuss some basics of the philosophy of science.

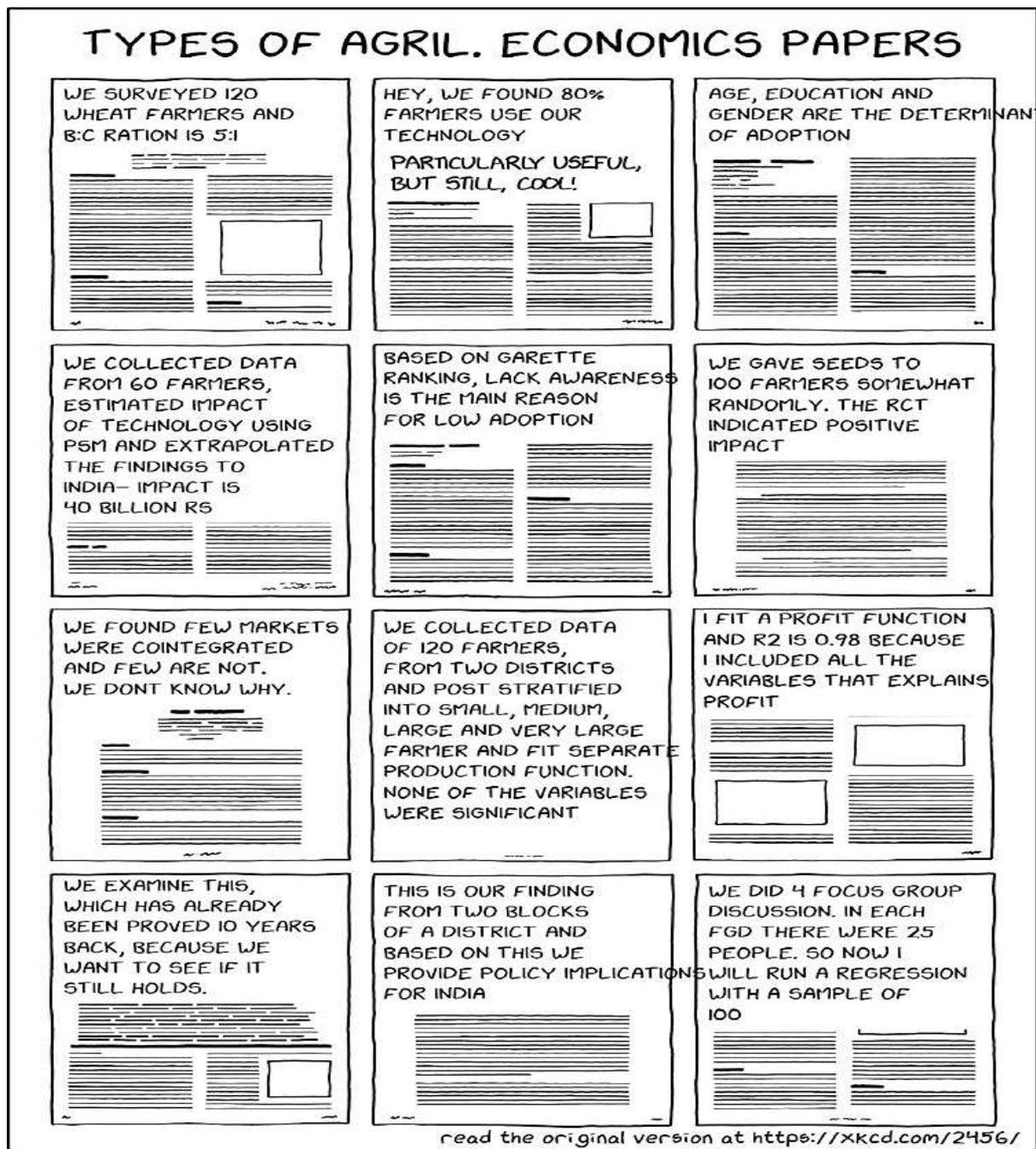


Figure 1: Types of Agricultural Economics research papers (a meme created by Aditya)
https://twitter.com/Aditya_ks/status/1395746308229505024?s=20&t=ZM2TAygm_INB9ld6A4O
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Broadly there are three main philosophies in science.

1. Deductive reasoning – Starting the enquiry with a theoretical background and applying it to understand field situations. It could be either ‘naïve falsification’ where the researchers try to either support a theory or end up with falsifying it based on observations from the field; or ‘critical reasoning’ where the hypothesis based on theory is the starting point, and the hypothesis is then statistically tested.

2. Inductive reasoning – This is theory-free reasoning based on observed data. The aim is to understand the story that observations are telling us and then drawing inferences based on these. The philosophy is to develop concepts based on the observed data.

3. Abductive reasoning – The philosophy is to critically observe the situation, draw inferences, go back to the field and gather more data to refine the concepts. So, this going back and forth between data collection and analysis differentiates it from the inductive methods.

EPISTEMOLOGY

With this understanding, we can now talk about epistemology. Epistemology is a very difficult term to define. In the simplest explanation, it is a set of rules for creating new knowledge, or rules used to understand the world we live in. Epistemologies pertaining to Social Science can be better represented in the form of a spectrum. We don't intend to explain all these different strands of epistemology in this blog, those who are interested can read more on these. Figure 2 depicts the spectrum of different epistemologies.

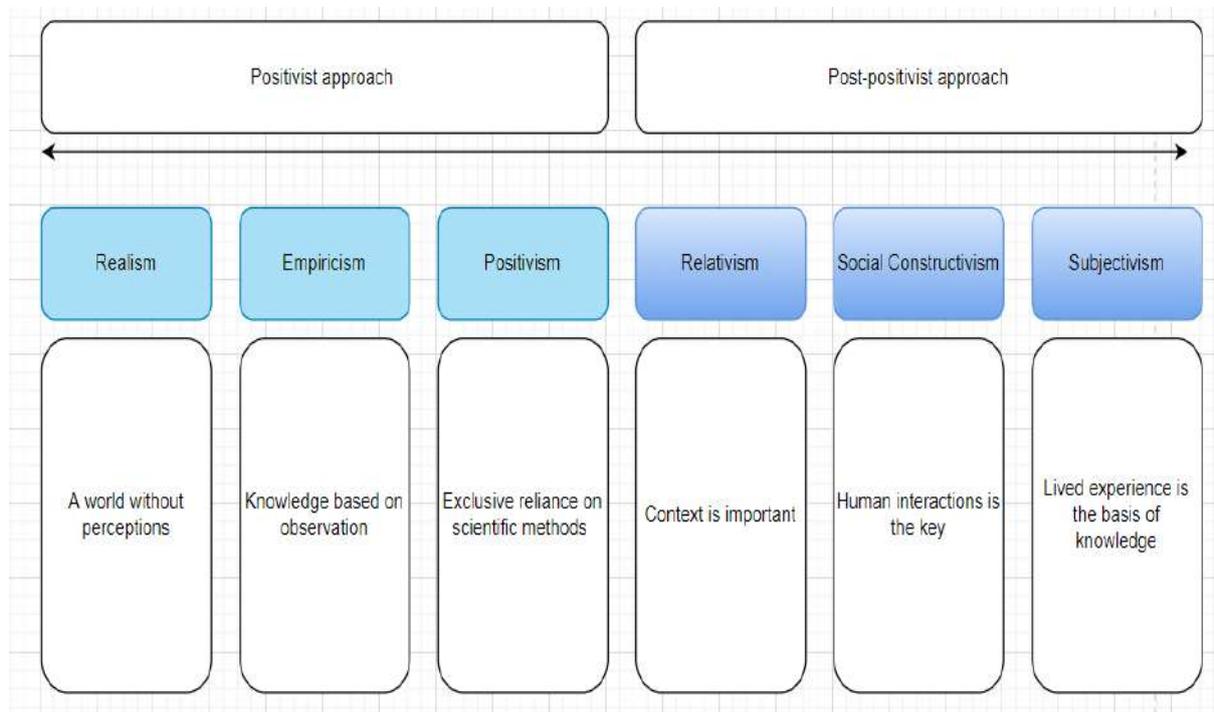


Figure 2: Different epistemologies in science

Qualitative methods fall under the epistemology of post-positivism, where the importance is on understanding the context of the situation, giving importance to understanding human interactions and lived experiences of participants. These methods rely on the researcher's description of perceived reality of the participants. In other words, the aim is not to describe what is real, but what the respondents think is real, based on their world view, because these perceptions are what shape their behaviour.

The purpose of detailing the research philosophies is just this: a researcher can better understand how to approach the problem if they think through on the epistemology they want to select. More importantly, there is no one universal methodological paradigm suited to all situations. One needs to choose the paradigm based on the situation and what they want to achieve. As Patton (1990) puts it 'research and evaluation should be built on the foundation of a "paradigm of choices" rather than become the handmaiden of any single inevitably narrow disciplinary or methodological paradigm.'

Box 2. Bear's decision to like honey

One day, in a sudden impulse of generosity, a bear decided to enlighten the other animals in the forest about the marvellous properties of honey. The bear assembled all the other animals together for his momentous announcement "I have studied the matter at great length," began the bear, "and I have decided. that honey is the best of all foods. Therefore, I have chosen to like honey. I am going to describe to you the perfect qualities of honey, which, due to your past prejudices and lack of experience, you have ignored. Then you will be able to make the same rational decision that I have made.

"Honey comes conveniently packaged in beautifully shaped prisms of the most delicate texture. It's ready to eat, slides down the throat ever so easily, is a highly nutritious source of energy, digests smoothly, and leaves a lingering taste of sweetness on the palate that provides pleasure for hours. Honey is readily available and requires no special labour to produce since bees do all the work. Its pleasing aroma, light weight, resistance to spoilage, and uniformly high quality makes it a food beyond compare. It comes ready to consume — no peeling, no killing, no tearing open — and there's no waste. What's more, it has so many uses; it can be eaten alone or added to enhance any other food."

"I could go on and on, but suffice to say that I have studied the situation quite objectively and at great length. A fair and rational analysis leads to only one conclusion. Honey is the supreme food and any reasonable animal will undoubtedly make the same conscious decision I have made. I have chosen to like honey."

Patton (1990)

END NOTE

Let us not be closed-minded on the choice of methods and let our choice of method be nothing like a 'bear choosing to like honey'. Let us be open to and promote more qualitative studies in agriculture as they can generate insights which are beyond the reach and scope of quantitative studies.

Note: We are not experts in the field of qualitative research, as we started working on it only recently and have developed a fascination for it. If there are any errors in the explanation, we totally own them. We also acknowledge that this blog is inspired by the teachings of Prof. Dr Vera Bitsch of TUM, Munich, Germany. Many of the points and literature comes from the classes of the Professor and the discussions afterwards. We are forever grateful to Prof Bitsch for the inspiration.

Recommended for Further Reading

Arsel Z. 2017. Asking questions with reflexive focus: A tutorial on designing and conducting interviews. *Journal of Consumer Research* 44(4):939-948.

Bitsch V. 2005. Qualitative research: A grounded theory example and evaluation criteria. *Journal of Agribusiness* 23(345-2016-15096):75-91.

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Geertz C. 2000. Deep play: Notes on the Balinese cockfight. Pages 175-201 *in: Culture and politics*. New York: Palgrave Macmillan.

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