

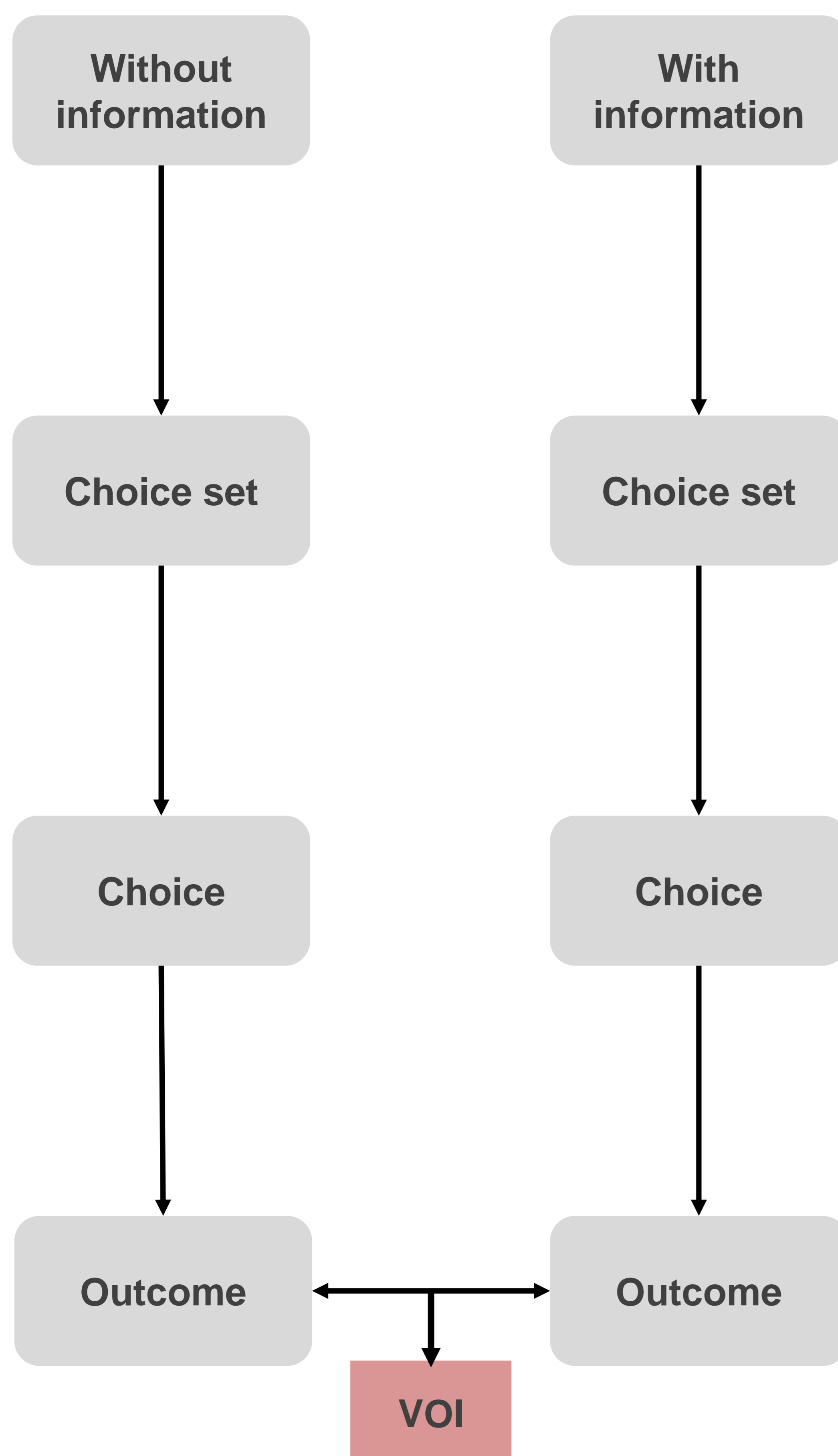
What is the aim?

To develop a systemic conceptual framework of how information delivers value that identifies the determinants and can inform analytical and empirical approaches to assess the value of information

How did we solve the question?

Based on decision theory, we developed a conceptual model of how information delivers value, i.e., improves decisions.

We did a literature review on the state-of-the-art regarding the different components of the conceptual model



Why is this aim important?

Health information is anticipated to improve animal health management and many claims are made regarding the value it provides;

Ex-ante assessments of its value are scarce yet crucial to inform developers of monitoring and support systems and potential users;

The scarcity of ex-ante assessments is due to a lack of systemic insights into the determinants of the value of information, which hampers the development of adequate study designs and raises challenges for making meaningful assumptions.

With(out) information → choice

1. Choice set: does the information broaden the choice set; or does it only allow better choices among existing alternatives?
2. Decision rules: how does the decision maker react to new information?
3. Learning effects: does the decision maker become better at detecting the problem even without the information?
4. Other behavioural influences: are there other social, economic, institutional factors that affect choices?

Choice → Outcome

5. Test accuracy: how perfect is the information and how often does it facilitate 'wrong' decisions?
6. Farming and production system: what is the nature of the farming and production system and how does that affect how decisions lead to performance?
7. Outcome: is the outcome in terms of money, economic profit, animal welfare, environmental performance, labour, food safety?

Discussion and conclusion

The conceptual model presents the value of information as the expected utility of managing with information minus the expected utility of managing without information.

Further, the conceptual model identifies 7 elements that influence, from information up to outcome, the value of information derived from the information. These elements are the research topic in often very distinct research fields and disciplines.

Study designs for the ex-ante assessment of the VOI will have to develop integrated interdisciplinary research approaches and designs based on the conceptual framework.

