Dear Reviewer,

Thank you sincerely for the time and thought you dedicated to evaluating our manuscript. Your comments were not only highly constructive but also very encouraging, helping us see more clearly how several sections of the paper could be strengthened. We carefully revised the manuscript following your suggestions, and below we summarise the improvements we made.

One of the most valuable points you raised concerned the role of economies of scale. We fully agree that this structural factor has a profound influence on both the economic outcomes and the antibiotic-use patterns of farms in fragmented agricultural systems. In response, we introduced an explicit discussion on economies of scale in the Introduction (rows 94–104), immediately after presenting the fragmented structure of Romanian swine farming, so that readers understand from the outset how scale conditions the broader context of our analysis. To ensure that this perspective is carried consistently throughout the paper, we also expanded the limitations section (rows 1034–1044), where we explain in more detail how scale effects may partly account for the correlations observed between ADKAR-S, profitability, and antimicrobial use. In addition, we added a short clarifying sentence in the results section (rows 535–539) to connect the differences between small and large farms directly with this well-established cost structure phenomenon.

Your remark regarding greenhouse gas emissions was also extremely helpful. We agreed, all of us, with your observation that swine production should not be described as a major GHG emitter in the same way as ruminant systems. We revised the sentence in the rows 51–55 to better reflect this nuance while still acknowledging the meaningful contribution of manure-related methane and nitrous oxide. This adjustment brings the statement into better alignment with existing scientific evidence and avoids potential misinterpretation.

We also appreciate your comment on the distinction between the number of farms and the distribution of animals across herd sizes. This was an important clarification so we rewrote the passage in rows 62–77 to first describe the structure of holdings and then separately explain how pigs are distributed across small and large herds. This restructuring creates a clearer and more coherent comparison with countries such as Denmark and Germany and avoids the ambiguity that was present in the earlier version.

Regarding Section 2.2, your observation about unnecessary repetitions was fully accurate. We undertook a complete reorganization of that section, merging the two separate descriptions of the ADKAR components into a single concise but comprehensive definition. We also consolidated the repeated interpretations of the five dimensions so that each element is now explained once, clearly, and with all references preserved exactly as in the original. This revision has greatly improved the readability and coherence of the methodology.

We corrected the inconsistency you identified in Row 405 concerning Cronbach's alpha; the correct range is 0.70–0.85, and this has been updated to match the values reported in Table 2 It was a typing mistake. We removed redundant explanatory text around Table 4 and Figure 1 (Rows 533–554), as it did not add new information and repeated content already provided earlier. We also replaced informal references of the tables with the appropriate numbering, ensuring that the manuscript remains consistent even if tables are relocated during publication formatting. Finally, we removed the internal comment left inadvertently at rows 757–758.

Once again, thank you very much for your thorough reading and thoughtful guidance. Your suggestions have significantly improved the clarity, precision, and overall quality of the manuscript, and we are truly grateful for the constructive spirit of your review.

Kind regards,
Corresponding author, on behalf of all co-authors

**All updates are highlighted in blue in the revised file for easier tracking*