Review of “A meta-analysis on the adoption of agricultural technology in Sub-Saharan Africa.”

1. Summary of the research
Adoption of agricultural technologies among rural farmers in Sub-Saharan Africa (SSA) is very important to increase productivity and ensure the success of the United Nations Sustainable Development Goals (SDG) 1 and 2. Arslan and co-authors made a great effort to conduct a meta-analysis of peer reviewed papers on adoption of technologies mainly from Ethiopia, Kenya, and Nigeria, and other countries in the SSA. In general, the findings narrated in this meta-analysis paper sound very interesting. The paper is also well written, easy to read and should be published. However, I have some observations that I would like to share with the authors with the aim to improve the paper.

(i) Introduction
The introduction section is well written and gives the reader a better understanding on why the study was conducted. The research question on what determines the adoption of 97 agricultural technologies in SSA from 30 years of published research is important to investigate. I particularly like the goal of the study which is to provide guiding principles for adoption with the aim to inform policy. The authors referred to individual adoption studies that tend to provide results that are specific to particular farmers, technology or location. I think this type of specific studies are also needed to provide targeted agricultural solutions to resource poor farmers in SSA and should be encouraged by donors, policy makers and the scientific community.

(ii) Results
The dataset section of the paper is clear but, I would like to have an explanation on why the authors think that the skewed distribution of the practices in Fig1 reflects the importance of crops such as maize, rice and cassava for food security in SSA. There are other crops e.g., yam, soybean, cowpea, Banana and Plantain that are equally important for food security in SSA.
The results in figures 2 to 4 are well explained. The authors indicated that wealth is positively correlated with adoption in many studies. This is interesting to know but unfortunately most rural farmers in SSA are not wealthy and need to be supported, trained, and encouraged to adopt agricultural technologies to increase productivity.

(iii) Discussion
The discussion section is impressive. I agree with the idea of using standard ontologies for the determinants of adoption to ensure comparability across studies. This will be useful for future meta-analysis studies. Having said that, I was a bit surprised to read that no study found land tenure to be significantly associated with adoption of improved livestock practices. While this may be true depending on the location of the study, but the discussion that livestock do not require private land holdings and may be grazed on communal lands is also surprising. This is because grazing cattle in communal farmland is the source
of unrest between farmers and herdsmen in most SSA countries. Perhaps this section of the discussion needs to be reviewed.

(iv) Materials and Methods
This section is clear and easy to read but I will suggest that it should be presented early in the paper. This would enable the reader to read with ease.

(v) Data Analysis
The idea of using vote count analysis in combination with sign test analysis is a major strength of the study because it helped the reader to appreciate the results.

2. Minor issue
In terms of structure, I will recommend the authors to use the traditional structure of introduction, materials and methods, results, discussion, conclusions, and recommendations.