

## ***Interactive comment on “Comparing multi-criteria methods for landslide susceptibility mapping in Chania Prefecture, Crete Island, Greece” by M. Kouli et al.***

**Anonymous Referee #3**

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Comparing multi-criteria methods for landslide susceptibility mapping in Chania Prefecture, Crete Island, Greece

The paper discussed about the comparison of weighted linear combination (WLC) model and weights of evidence (WoE) using different landslide conditioning factors. Various categories of variables have been considered such as: bedrock geology, slope angle and many others. I see that the data used in this study is valuable however, from modelling perspective there is no novelty in the manuscript. In recent years, many

C195

articles are published on comparison of various models in landslide susceptibility mapping. Having said that, the model validation process has some issues. Please see my comments below. Consolidated comments: “ In the literature review, you have mentioned about various types of model used in landslide susceptibility mapping. However, nothing has been mentioned about the pros and cons of those models. Over the last decade, many statistical/data mining models have been widely used in landslide mapping. You should review them and add in the literature review chapter. A separate section on literature review should be added. Over the last decade, many data mining models such as SVM, DT, ANFIS etc. has been widely used in various applications. More importantly you should discuss the pro and cons for some of them. For your reference, I am providing some recent references below. You can find many more in the literature.. “ Please mention the choice/rationale behind the classification of the continuous data used in the study. Description should be given on "How did you classify the landslide conditioning parameters maps???" “ More description should have been given on landslide inventory and scale and type of landslides which is missing from the manuscript. “ The inventory data should have been divided into two parts for model training and validation. “ The validation process has some serious problem. Authors have performed success rate curve for the obtained landslide susceptibility maps. But according to the literature in more recent years, landslide scientists preferred to have both success rate and prediction rate curve for model validation. For that reason, predication rate curve should have been presented as prediction rate provides the real performance of the models.

All the best for your research,

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C196