

Interactive comment on “Exploring the change of Risk Perception and Adaptation Behavior among Varied Social Character Before and After Earthquake Disaster – A Case Study in Taiwan” by Tzu-Ling Chen et al.

Anonymous Referee #2

Received and published: 17 April 2020

The piece of the change of risk perception and adaptation behavior between pre- and post-earthquake disaster proposes an interesting comparative discussion. The manuscript has a clear scope but some sections could be improved. In addition, there are some other literature exploring similar topics (listed below) and should be included in the discussion. Indeed, risk perception and adaptive actions might be varied according to different social characters. The presentation of result is radical different from previous studies in ANOVA. Traditional table could reveal various value and significance. Authors should provide more information of such different expression to let

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reader catch such outcome. As a whole, the dataset is interesting and meaningful for most studies indeed could only examine pre- or post- earthquake only. In the following I would like to separate my comments into general and specific.

(1) General comments A. Although risk perception and adaptation behavior are the key issue, it seems that disaster experience is the key factor authors discussed in this article. The overall logic in introduction is blurred right now, and such vague might further the results interpretation. How to reconnect the research question and the findings might be important for this study.

B. The expression for the results need more information. It is easy for readers to catch the results from table such as the value of the variable and the p-value. Although in Figure 3 to 7 there is a red line for p-value of 0.05, the figures are still blurred. What does the arrow mean? In order to increase readability, certain information might be necessary to provide.

(2) Specific comments A. Line 35. Current reference applied to risk perception and adaptation behavior is rather too old. In fact, there are more recent literature exploring similar issues or topics. Although some of the literature are important such as Lindell, Becker, Sjöberg and so on, it is important to update such discussion.

Motivations to prepare after the 2013 Cook Strait Earthquake, N.Z Perceptions and reactions to tornado warning polygons: Would a gradient polygon be useful? Assessment of households' responses to the tsunami threat: A comparative study of Japan and New Zealand Perceptions, behavioral expectations, and implementation timing for response actions in a hurricane emergency Port stakeholder perceptions of Sandy impacts: a case study of Red Hook, New York Conflicts in adaptation: case studies from Nepal and the Maldives The role of prior experience in informing and motivating earthquake preparedness

B. Line 51. The research question might need more specific and elaborated in the last paragraph of Introduction section. Although the title is rather clear, there is no

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statement regarding the research question. Therefore, this part could be improved.

C.Line 85. In the article, the survey data is the main dataset. "All survey sampling methods relied on simple random sampling." How can you tell the representative of the sampling data? What is the ratio between sampling amount and the study area?

D.Figure 2 is important for this study. However, it is unclear which result is applied post hoc or not. This should be discussed systematically either in the research design or in the results.

E.Line 135. The separation of the result is based upon social character. Again, due to there is no specific research question, it is hard for readers to understand why separate in current sub-categories. In addition, I think pre- and post- is the main concern, and this should be clarified.

F.Line 191. Figure 8 to 10 are not providing enough information for the readers, so I suggest these figure could be deleted.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2019-422>, 2020.