

Interactive comment on “A GIS-based multivariate approach to identify flood damage affecting factors” by Barbara Blumenthal et al.

Patel (Editor)

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Paper is relevant to the scope of the journal, it describes the importance of TWI for urban flood risk analysis. The topic is certainly in interest of the international reader; However, I found several concerns that deserved to be addressed to improve the quality of the paper. Major comments: 1) Pg.4, line 25, Provide the details of DEM which used for derive the slope map of the study area. 2) Fig.1 North arrow is missing 3) Author(s) has classified the land cover in three classes, however the description of land use classification methods and source image is missing 4) Author(s) have pertained the average rainfall in Table 2, however the method used for calculation of Average rainfall is missing. In addition, study is based on spatially located data bases although the location map of rain gauages are missing. 5) Pg. 3, Line 21 temporal resolution is

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15 minutes, however as per table 2 temporal resolution has been considered for 15 minutes and 60 minutes, it shows the wrong interpretation of data sets for statistics. 6) Pg. 3, line 39 shows that Geographic positions for damages are not certain then how it is compare with TWI analysis? 7) What is PCA? What its significance flood damage analysis? 8) Pg. 6, line 3, what is the r value of 0.7 to 0.9? Explain it significant in present study
Minor Comments: 1) Pg. 7, line 3, The word introduction in italic font, use it in normal text 2) It has observed that author(s) has used Swedish name at many places; kindly provide the English name for the understanding of wide range of international reader. 3) Pg. 4, line 22 and 23, Appendix 2 cited before Appendix 1 in text. 4) Many sentence structure formations are wrong, i.e. page 5, line 1-2, The medium TWI., which is not clarify its meaning. Many grammatical mistakes and sentence structure formation errors are observed throughout the manuscript. It is important to verify it with native English speakers. Please discuss why this study is useful to the local communities, and how they could use the information.

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