MULTIPLE REGRESSION

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Multiple Regression Article Review

The article, *Housing prices: Multiple regression-Multicollinearity and Model Building* by Smith (n.d), entails an evaluation of housing prices based on a number of factors that influence the pricing process. Notably, the study utilized a multiple regression analysis in the process of establishing the significant associations between the house prices based on the number of bathrooms, number of bedrooms, and the size of the house in square feet.

**Q1. Why did the authors use multiple regression?**

Worth a note, the author adopted the multiple regression analysis because the research objective entails evaluating whether there existed an association between the house prices based on three independent factors, which are the beds, baths, and the square feet. Thus, since the study entailed multiple variables, the author was obliged to adopt a multiple regression to enhance the realization of the research objectives. Notably, Cohen, J., Cohen, P., West, and Aiken, (2013), postulates that a multiple regression analysis involves an evaluation of a dependent element in respect to two or more other independent variables.

**Q2. Do you think it is the most appropriate choice? Why or why not?**

Multiple regression analysis was the most appropriate choice of statistical model that Smith would have utilized in the house prices study. Notably, multiple regression models incorporate more than one factors in the analysis; thus, providing a better understanding of the elements under investigation through a comparative measure of the key attributes. Moreover, multiple regression provides a capacity to validate data for any errors as well as the presence of outlier variables in a particular study.

That is, a multiple regression in the study would assist the author to determine whether each independent factor revealed some level of significance with respect to the dependent variable. In a case where one or two variables in a multiple regression reveal non-significance indicates that the factors contain outliers.

**Q3. Did the authors display the data?**

The author of the article did not display the raw information utilized in the process of modeling the multiple regression. However, the authors provided the analysis results in form of tables, which denies a secondary user of the analysis, for instance, in a meta-analysis to validate the authenticity of the information and the study findings. Besides, without the information, it would be difficult to validate the study results, which could be prone to errors leading to making wrong decisions.

**Q4. Are the results stand-alone? Why or why not?**

Based on the research results presented in the article, the statistical output classified are as a stand-alone. Notably, the results of the study presented are in tables and graphical presentations that provide ample information, which one could interpret the study using the output. Firstly, the results in the table exhibit one in the article that provides information related to "Multiple regression for prices and the three size variables," depict ample information that is very easy for one to establish the study objective as well as interpret the study results. Secondly, the results provided by the author indicate multiple units of measures that are clear and easy to conceptualize and interpret.

In conclusion, the study results are free from clutters and utilize appropriate titles as well as the footnotes, which enhance the interpretation of the results. Moreover, the results are stand alone because they formatted are appropriately in tables prepared to convey the intended information from the multiple regression analysis. Indeed, the result presentation provides a powerful mode of transferring the intended analytical information.

Reference List

*Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). Applied multiple regression/correlation analysis for the behavioral sciences. Routledge.*

*Smith (n.d). Housing prices: Multiple regression-Multicollinearity and Model Building. Retrieved from: https://www.jmp.com/content/dam/jmp/documents/en/academic/case-study-library/case-study-library-12/business-case-studies/12-housingprices.pdf*