

Study on Smartphone Preferences Using Fuzzy AHP

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ABSTRACT

In recent years, our technology has advanced remarkably quickly, especially on smartphone. Smartphones are now in high demand among people of all ages. A smartphone is a portable device that combines the features of a phone and a computer into one device. Customers may save money by choosing the best smartphone. However, when there are many smartphone models with multiple criteria the selection for the best model gets more difficult since, some individuals may find it difficult to pick a smartphone with a variety of complex technologies. Therefore, the widely used multi-criteria decision-making tool Fuzzy AHP may be utilized as a method for selecting the best smartphone. This study shows how Fuzzy AHP was used by a smartphone company to choose the optimal smartphone model based on a set of criteria. A total of 3 criteria were chosen which are the camera, storage and battery and six alternatives used are Samsung Galaxy A53, Samsung Galaxy A73, Huawei nova 9 SE, Huawei P50 Pro, vivo V23 5G, vivo iQOO Z6. The Fuzzy AHP was then used to compute the data according to the phase, allowing us to determine the rank and preference value of the desired smartphone. Results shows the consumers firstly prefers Huawei P50 Pro, secondly Samsung Galaxy A73 5G, thirdly Samsung Galaxy A53 5G. Fourth, Huawei nova 9 SE. Fifth, Vivo iQOO Z6 and finally Vivo V23 5G. Furthermore, by describing the stages of Fuzzy AHP in a clear and quantifiable manner. This research can serve as a model for applying the technique to other multi-criteria decision-making issues.

Keywords: Smartphones, Fuzzy AHP, Multi Criteria Decision Making