

# **Application of Analytical Hierarchy Process (AHP) Method in the Comparison of Phones with Different OS (Android, IOS, and Huawei OS)**

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## **Abstract**

Throughout the years, different mobile phones have improved in terms of quality and design which are still being developed continuously. It is known that the mobile operating system is responsible for the overall performance of a particular mobile phone. This study aims to know the user preference when it comes to the mobile operating system of different mobile phone designs in the current market today namely, the iOS, Android, and Huawei's HarmonyOS. This study uses an Analytic Hierarchy Process with the help of a software called Expert Choice in evaluating the final conclusions. A survey questionnaire with different criteria was constructed for the data needed in this study. The criteria used for this study were Interface, Customization, Reasonability, Storage, Battery, Camera, and Overall User Experience. Among the 7 criteria, Reasonability showed the highest weight with an equivalent value of 0.354. After conducting all the tests and using pairwise numerical comparisons and graphs of the different operating systems, Android was identified to have the highest score with a value of 0.443. These data gathered will be of help for users in determining the most preferred mobile phone operating system.

## **Keywords**

Analytical Hierarchy Process, Mobile Operating Systems, iOS, Android, Huawei Harmony