

The role of the Human Development and the Safety Index in European Countries

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Introduction

This paper examines the development of European countries, as well as the factors related to it. Various studies have shown that the evolution of any country is only possible if the human development is not stagnant. For this reason the safety and protection of human beings play a major role in this subject. Thus, the goal of this study is to evaluate if there is a statistical significance between the safety index and the human development index of European countries.

Methods

In the present article we used real data consisting of the Safety Index and the Human Development Index of 40 European countries, which were later divided into four groups based on the percentiles of the Safety Index. We performed a one-way ANOVA to compare the means of the different groups, after performing a Levene's test to assess the equality of variances, and a Kolmogorov-Smirnov test to test for normality. Lastly we performed a Bonferroni test to analyze the multiple comparisons. All of these were performed on the version 24 of the computer program IBM SPSS Statistics.

Results

Analysis of the data indicates that there is a statistically significant relationship between the safety index and the human development index. As there are overall significant differences in the groups, a multiple comparisons test (Bonferroni test) was performed to detect in which groups there are significant differences, that is, which groups provoke rejection of the null hypothesis in ANOVA. With this test we conclude that the differences are significant in all groups, except between groups 3 and 4, since it is the only pair that presents p-value higher than $\alpha = 0.05$.

Conclusion

From this study we can conclude that there is statistical significance between the Safety Index and the Human Development Index of the European countries studied. Furthermore, the results indicate that human development improves with an increase of safety.