

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.0. Summary

This study used the online data from the official website of Philippine Statistics Authority (PSA). Multidimensional Scaling Analysis (MDS) was used to determine the weights of the economic indicators as variables included in the study. The same variables were used in each region in the Philippines to conduct multidimensional scaling analysis. Based on the dimensional coordinates, gross domestic products, purchasing power of the peso, inflation rate, labor force participation rate, employment rate, unemployment rate, underemployment rate, population, birth rate and death rate were used in the construction of statistical index, the Economic Development Index (EDI). The said analysis was acceptable because majority of the stress and fit measure is greater than 0.01 but less than or equal to 0.05. With the help of this test, the data collected were suitable. Statistical properties of the index were assessed using bootstrap resampling technique. Bootstrap resamples B of sizes 200, 400, 600, 800, and 1000 at different percent sample s of sizes 25%, 45%, and 75% were considered in the study. It was observed that as the percent sample size s increases, the value of the bias from the pseudo bias gets smaller. Thus, the bias of EDI approaches zero as the percent sample S size increases. Standard error of each EDI was computed. The standard error increases as the percent sample s size increases which tends to approach zero. The EDI value ranges from 27.49740%, the lowest index value in the below average regions, to 30.765810%, the highest index value in the above average regions. Region IV-A: CALABARZON tops the list followed by region IX: Zamboanga Peninsula and region XII: SOCCSKSARGEN. On the hand, region VII: Central Visayas, region III: Central Luzon and region I: Ilocos Region were the bottom three regions with the lowest EDI value. The Human Development Index (HDI) as the only measurement of development in the Philippines was also presented.

5.2. Conclusions

This study was employed to find the similarities or relationship among variables and to construct a statistical index which could serve as a measure of Philippine region's economic development using the economic indicators. The results were shown and the following conclusions were drawn:

1. Most of the proximity matrices showed that there was a high similarity or correlation between gross domestic product (GDP) and population, also inflation rate and labor force participation rate.
2. Region IV-A: CALABARZON has an environment that is more conducive to the making and implementations of economic development policies while region I: Ilocos Region has an environment which is not so conducive.
3. Based on the bootstrap resampling results, the statistical index was consistent and accurate.
4. A 35% percent of the Philippine regions were above average and 65% percent were below average in terms of economic development.
5. The results showed that Multidimensional Scaling (MDS) Analysis was appropriate for the weighing of the data collected due to the fact that MDS avoided misrepresentation of data.
6. The study concluded that the statistical index, Economic Development Index (EDI), possessed a desirable statistical characteristic of a good estimator that serves as an alternative measure of a region's economic development.

5.3. Recommendations

Based on the results, the following recommendations are highly recommended by the researcher in order to improve this study:

1. It is highly recommended to consider another or additional set of variables in order to attain new economic indicators.
2. It is highly recommended to use Multidimensional Scaling Analysis (MDS) as statistical method of analysis in other multivariate data.
3. It is highly recommended to use Bootstrap Resampling Technique as statistical tool for the validation of statistical properties.
4. Lastly, it is highly recommended to apply another statistical method of multivariate analysis and another validation tool, and compare the results to differentiate the appropriateness of the procedure.