ABSTRACT

Characteristics of Stochastic Process Modeling of Migration In Indonesia

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The aims of this study is to find the characteristic of migration in indonesia using markov process with transition matrices of migration in 1971, 1980, 1990, 2000, and 2010. The states of transition probability (Sumatera, Jawa, Kalimantan, Sulawesi, and other Island) are communicate to each other and the state is irreducible. From the result of analysis, there are similar stationary probability among the transition probability migration in 1971, 1980, 1990, 2000, and 2010. Based on the result of Chi-Square test shows that the distribution of migration in 1970, 1980, 1990, 2000, and 2010 for Sumatera, Java, Kalimantan, Sulawesi no significant different with p-value are 0.990, 0.920, 0.927, and 0,284 respectively. But for other Island the test shows significant different with p-value 0.01, but the difference is very weak as shown by the value of Cramer’s V = 0.132.

Key words : stochastic process, migration, markov process, chi-square test, cramer’s V.