

Modeling Factors Affecting Fertility Transition in Africa: Case of Kenya

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Abstract : Fertility transition has been identified to be affected by numerous factors. This research aimed to investigate the most real factors affecting fertility transition in Kenya. These factors were firstly extracted from the literature convened into demographic features, social, and economic features, social-cultural features, reproductive features and modernization features. All these factors had 23 factors identified for this study. The data for this study was from the Kenya Demographic and Health Surveys (KDHS) conducted in 1999-2003 and 2003-2008/9. The data was continuous, and it involved the mean birth order for the ten periods. Principal component analysis (PCA) was utilized using 23 factors. Principal component analysis conveyed religion, region, education and marital status as the real factors. PC scores were calculated for every point. The identified principal components were utilized as forecasters in the multiple regression model, with the fertility level as the response variable. The four components were found to be affecting fertility transition differently. It was found that fertility is affected positively by factors of region and marital and negatively by factors of religion and education. These four factors can be considered in the planning policy in Kenya and Africa at large.

Keywords : fertility transition, principal component analysis, Kenya demographic health survey, birth order

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