

DEMAND ELASTICITIES OF MOBILE TELECOMMUNICATION SERVICES IN KENYA

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ABSTRACT

The mobile telecommunication subsector has experienced exponential growth over the last decade which has been attributed to lower calling rates, subsidized handsets, increasing income among other factors. Lack of consensus in empirical literature on the importance of these variables, especially income and calling rates, as well as scanty Kenya specific studies on the same informed the need for this study.

The objective of the study was to estimate the price and income elasticities of demand and cross elasticity of demand for mobile telecommunication services using monthly panel data on the four mobile network operators for the period between June 2011 and March 2013. A static model was estimated using the feasible generalized least squares random effect model and robust estimates obtained. The coefficients estimated show expected signs and are statistically insignificant apart from income coefficient. The demand is price inelastic but income elastic. Marginal subscribers use less voice call while fixed line network complements mobile telephony. The dynamic model is estimated using the generalized method of moments used by Arellano and Bond (1991) and the results show presence of path dependence of elasticity of demand. Long-run price elasticity of demand is higher than the short-run elasticity.

The reduction of calling rates is therefore detrimental to the profitability of the firms as it may not result to higher usage of mobile services. This reduction can only negatively affect firm investment in network quality and stability. The firms should therefore focus on quality improvement and value addition as well as internet and mobile money transfer instead of seeking higher subscriber base by reducing prices. The reduction of termination rates may also not result into higher usage of mobile services.