

ABSTRACT

For any resource, including radio spectrum, the primary economic objective is to maximize the net benefits to society that can be generated from that resource such that there is an efficient distribution of resources resulting in maximum benefits to society. Prices are used as an important mechanism to ensure the spectrum resources are used efficiently by users.

Spectrum pricing refers to a range of spectrum management activities and tools including administrative fees, spectrum usage, and spectrum prices determined by way of market mechanisms. Developing spectrum pricing strategies invariably involves alignment with the government's and regulator's revenue goals and objectives, setting targets, and discussion with key stakeholders such as the Ministry of Finance and key sector groups – telecommunications service providers. Revenue targets and strategies relate directly back to the primary objectives; spectrum users pay for spectrum use, covering management costs, spectrum efficiency, and policy achieving economic and social development goals.

The price to be charged for spectrum will be proportional to the derivable benefits and level of usage based on the following parameters :

- a. Size of spectrum assigned
- b. Coverage area of license such as national, state or regional coverage

- c. Proportion of time for which usage is desired e.g Number of Hours, days or months per year (duration)
- d. Number of users sharing the frequency
- e. Administrative overhead cost associated with monitoring and frequency management
- f. Level of competition and demand-supply equilibrium
- g. Incentive or disincentive factor

Therefore ,the objective of this research thesis is to design a formula for the strategic review of spectrum pricing and the comprehensive analysis it includes.