

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY



FACULTY OF APPLIED SCIENCES

DEPARTMENT OF COMPUTER SCIENCE

AN ASSESSMENT OF THE IMPACT OF INFRASTRUCTURE SHARING ON CAPACITY CHALLENGES FACED BY MOBILE NETWORK OPERATORS IN ZIMBABWE.

By

MAGEZI FARAI

(N01521924W)

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Abstract

The study sought to investigate the effectiveness of network infrastructure sharing on capacity challenges faced by Mobile Service Providers in Zimbabwe. The empirical literature revealed that Infrastructure sharing can substantially reduce capital and operational expenditure thereby increasing the speed of network rollouts, improve coverage and help meet the capacity demands of increased data traffic without major degradation in service and quality delivery, as well as give greener environment and better looks of our country, Sony Ericsson, (2010). In Zimbabwe telecom companies such as Tel*One, Net*One, Econet, and Telecel are experiencing increasing subscribers for voice calls, data traffic and video services giving rise to stiff competition and capacity constraints in the industry. Operators adopt strategies to survive the intensity of rivalry such as rebranding, infrastructure sharing, mobile money transfer facilities and mergers and acquisitions. This study focused on infrastructure sharing as a strategy for cost and capacity optimisation and revenue generation for these telecommunication service providers in Zimbabwe. Resource sharing is in many forms depending on the regulatory framework in a particular country. This includes sharing of passive and active infrastructure. In this case, telecommunication operators are able to share support structures such as towers, masts, ducts, conduits, trenches, manhole and street pedestals as well as the sharing of electronic power supplies, air condition and alarm systems. The blend of resource based view and Porter's Competitive theories, cost leadership and differentiation were selected to underpin the study. The data was collected using a questionnaire with the target population being the technical staff and managers from the four telecom operators in order to study the population. A target population of 140 employees from the fixed and Mobile Service Providers was considered. To identify the respondents the purposive and stratified sampling methods were employed where a sample size of 15 respondents was used in this study using both structured questionnaires and scheduled interviews. Both descriptive and inferential statistics were used to analyse data collected from respondents in this study. The belief is that the results obtained from this study will be beneficial to stakeholders in telecom industry to formulate policies that promote Infrastructure sharing with a view to promoting universal access capable of handling high bandwidth requirements.