

The use of quantitative forecasting estimates in billing utility

Abstract:

The residents of Nairobi on the city council of Nairobi for their provision of water needs. Provision of such an essential service is very challenging for the City Council especially with current population growth rate in the city. Continued provision of water is possible if adequate revenue is generated from water sales to cover capital, operation and maintenance costs. Collection of revenue from water sales has been a perpetual problem to the city council. One of the main problems is attributed to the delay in reading the water meters, an exercise which has to be done before billing consumers. Meter reading is a taxing job especially when the workforce is small. Other problems that hinder smooth operations of meter reading include lack of adequate transport for the meter readers and poor weather conditions. In this paper, it is argued that the meter reading frequency can be reduced through the use of quantitative forecasting methods to provide estimates of water consumption for certain categories of consumers. Such estimates, when used as a basis for billing consumers, have been found to be fairly reliable in some categories of consumers and not others. Although this approach will help to keep down the meter reading expenses, its implementation requires a careful consideration of organizational issues. Important organizational issues such as the co-ordination between the connection and disconnection sections, the finance department and the administration department need to be addressed. For an effective co-ordination and an improved dept collection, an installation of a new computer system will be required to provide easier access to data and provide accurate and timely management information for the billing and revenue collection from consumers.