

Factors influencing sustainability of micro and small piped water enterprises
In piped networks in peri-urban areas of kenyan cities

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ABSTRACT

The purpose of this study was to investigate the factors that influence sustainability of micro and small piped water enterprises (MSPWE's) in piped networks in peri-urban areas of Kenya's cities. Previous studies had shown that small water enterprises (SWEs) had been created to fill water service delivery gaps in the public water utility networks but none had been undertaken to enable generalization on the factors that influence their sustainability. This study, therefore, aimed at filling the knowledge gap by examining MSPWE's operating in the peri-urban areas of the Kenyan cities- Nairobi, Mombasa and Kisumu. The theoretical framework applied in the study was the resource based theory (RBT). The findings will promote better understanding of prerequisites for the sustainability of MSPWE's operating in peri-urban areas by key actors which in turn could spur interventions to enhance the sustainability of the MSPWE's thereby enabling them enhance their capability to deliver piped water to peri-urban areas. The study adopted mixed model research design. The target population was 2,742 MSPWE's in piped water networks in peri-urban areas of Kenya's cities occurring in three organizational strata comprising fully privatized models (FPM's) and enterprises operating under public private partnerships (PPP's) as bulk sale PPP's (referred to as Master Operators) or retail PPP's. The sample size comprised 503 MSPWE's selected by stratified random sampling. Data was collected by administering questionnaires to the MSPWE's entrepreneurs and supplemented by interviews of top management in eight key institutions on water services delivery in Kenyan cities and direct observations. Data was subjected to qualitative and

Quantitative analysis. A key predictor of sustainability, entrepreneurial pricing strategies, was studied by testing of hypotheses on price competitiveness within MSPWE's categories and with the public water utilities in the same city by chi-squared (χ^2) test and across MSPWE categories within and across cities by analysis of variance (ANOVA). The study found that the factors postulated to influence sustainability, that is, market drivers for entrepreneurial response, entrepreneurial customer responsiveness, entrepreneurial pricing strategies, regulatory and business organization frameworks as well as interventions for acquisition and improvement of entrepreneurship skills enabled the majority of MSPWE's to acquire and control water and associated infrastructure as a resource that was valuable, rare, imperfectly imitable and non-substitutable and created favourable industry conditions. These factors led to the attainment of the conditions needed to acquire competitive advantage according to the resource based theory. It was therefore concluded that market drivers for entrepreneurial response, entrepreneurial customer responsiveness, entrepreneurial pricing strategies, regulatory and business organization frameworks and interventions for acquisition and improvement of entrepreneurial skills influence the sustainability of MSPWE's. The recommendations made include implementation of interventions to assist growth of MSPWE's by joining forces to become larger service providers, streamlining regulation to ensure market driven MSPWE's while catering for consumer safety, design and implementation of tailor-made interventions for acquisition and improvement of entrepreneurial skills by MSPWE'S and up-scaling them through public private partnerships (PPP's) in water services delivery