Performance differentials among urban aquaculture systems in Ibadan metropolis, Oyo State, Nigeria: Partial budgeting analytical approach

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Abstract:

The paper evaluates the performance differentials among urban aquaculture systems (earthen ponds, flow-through, and re-circulatory systems) in Ibadan metropolis of Oyo State Nigeria using descriptive statistics and partial budgeting technique to determine the marginal rate of returns of these systems. The data for the study were obtained through two-stage sampling approach from 80 fish farmers selected from 9 local government area within Ibadan metropolis. Empirical evidence from the analysis shows that majority of the farmers were relatively new in the sector (64.49% with 1-5 years of experience) and there was evidence of withdrawal tendency after some years of practice. Analysis of cost component of these systems, reveal that re-circulatory system required the highest capital outlay followed by flow through systems and then earthen pond. In terms of total cost of production, the similar trend was also observed. The results of partial budgeting showed that earthen pond system depicted a net benefit ratio of about N8.00, N2.00 for the flow-through and a loss of N1.00 for the re-circulatory systems. This portrays that earthen is more desirable than the flow-through and re-circulatory systems. The loss in re-circulatory system might have been due to poor technical knowledge capacity; unfriendly production environment and poor availability of necessary facilities to minimize the general loss. Extension activities should be intensified on disseminating and building technical knowledge capacity for the adoption of flow-through and re-circulatory systems that can be practiced even in dry seasons.

Keywords: Earthen ponds, performance, re-circulatory and flow through