



Empowering Female Innovators through Digital Literacy Programmes in Nairobi Informal Settlements: A Methodological Approach

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Abstract

Digital literacy programmes have been identified as crucial for empowering female innovators in tech startups, particularly within marginalized communities such as Nairobi's informal settlements. A mixed-methods approach was employed, integrating surveys (N=150) with qualitative interviews to gather data on programme efficacy and participant feedback. Statistical analysis utilised a two-tailed t-test for significance testing of mean scores in digital literacy skills pre- and post-programme. Participants demonstrated significant improvement in digital literacy skills ($t(149)=3.25$, $p<0.01$), with an engagement rate of over 80% across all sessions, indicating a promising pathway for future scaling of the programme. The methodology successfully identified and addressed gaps in digital literacy among female entrepreneurs in Nairobi's informal settlements, fostering their capacity to innovate within emerging tech ecosystems. Future research should explore long-term impacts and scalability strategies while continuously refining the programme based on participant feedback and technological advancements. Digital Literacy, Female Innovators, Nairobi Informal Settlements, Empowerment Programmes

Keywords: Kenya, Geographic Information Systems (GIS), Participatory Action Research, Feminist Methodology, Community Engagement, Digital Divide, Techno-Gender Studies

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