Interventions in Human Resource Development globally represent an essential contribution to promote and accelerate a country’s development agenda; this can only be achieved when there is integration and efficient utilization for human resources. Organizations including government of Kenya make investments in skill development for improved employment growth and decent work for youth. Despite these interventions unemployment rates have continued to increase to 35% in 2013 (UNDP, 2013). This study therefore seeks to evaluate the effect of Human Resource Development interventions on employability outcomes among the beneficiaries of youth enterprise fund in Nairobi County. The specific objectives of the study include; determining the effect of financial capital intervention; ascertaining the effect of human capital intervention; assessing the effect of relational capital intervention and to establish the moderating effect of demographic factors on employability outcomes among the beneficiaries of Youth Enterprise Development Fund in Nairobi County. The research design employed was descriptive, cross-sectional survey design and explanatory design. The target population was 37440 youth beneficiaries from 1872 Youth groups registered by Youth Enterprise Development Fund based in Nairobi County. Stratified and random sampling designs were used to determine a sample size of 180 respondents who had accessed the various services of YEDF in Nairobi County. The data was then analyzed using SPSS. The study utilized quantitative data and qualitative data was collected using semi-structured questionnaires and document review. Validity of the instrument was tested using content analysis while reliability was established using Cronbach Alpha (0.7 threshold). The findings indicated that there is a significant positive and significant effect between Financial Capital and Human Capital Interventions other than Relational Capital Intervention and employability outcomes among beneficiaries of Youth Enterprise Development Fund in Nairobi County, Kenya. The demographic factors had a full moderating effect on the relationship between Human Resource Development interventions and employability outcomes among beneficiaries of Youth Enterprise Development Fund in Nairobi County, Kenya. The study recommends that government needs to revise loaning procedures; structure and amounts disbursed considering that 18-35 years youth have expressed diverse needs and characteristics. There is need for further categorizations of youth by age in order to offer innovative products that suit each youth category and avoid generalization. Further, government should focus on appropriate need driven training based on a thorough review with wider stakeholder guidance to help beneficiaries own the interventions and processes for sustainability. Government should boost capacity in training, financial interventions and evaluation by establishing linkages with national stakeholders such as innovation and incubation centers that could help nurture talent. Government should network with research institutions such as universities and other successful international investors.