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Feasibility Study of a Small Sheep Farm with Risk Analysis

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Abstract

This paper presents a feasibility study estimation on a sustainable small-scale Sheep Raising Farm (SRF) venture, for emerging livestock entrepreneurs. The study states that the investment is entirely financed by the farm's proprietor, with an interest rate around 4% as per the annual treasury bond rate of the Central Bank of Kuwait's. Furthermore, it is presumed that market conditions are optimal, and all production capacity is marketed locally. The SRF is built on a 5,000 square meter site, featuring a Sheep breeding facility that accommodates 25 SRF per cycle. The facility has three production cycles, producing around 75 Lambs annually and yielding approximately 75 Mothers Sheep's (MS) annually. The optimal age for Lambs to be sold in the local market is about 4 months. A market study was conducted to determine the prices of selling and reselling Lambs and MS, revealing that the prices were around 80 Kuwaiti Dinar (KD). The financial outcomes of the SRF showed an annual operational expenditure of 8,900 KD and an annual income of 12,000 KD, resulting in a net income of 3,100 KD. The preliminary investment required to establish and operate the farm is around 12,263 KD. The feasibility study analysis of the SRF revealed that the Internal Rate of Return (IRR) is 8%, the Net Present Value (NPV) is around 1,538 KD, and the Payback Period (PBP) is roughly 3.9 years, indicating a feasible project. . In addition, a risk analysis was conducted in the form of sensitivity analysis on the price range of selling the lambs as well as operational costs. The analysis showed that within the price range of 80-90 KD the project is still feasible in all conditions, but anything under the price range of 80 KD the project becomes unfeasible. Moreover, regarding the operational cost, the financial analysis showed that even though operational cost increases or decreases within the range of 200 KD the project remains feasible.

Keywords: Sustainable, Feasibility Study, Internal Rate of Return, Net present Value , Payback Period