

**STUDY ON APPLICATION POTENTIAL OF
ULTRAMODERN TECHNOLOGY FOR PROFIT
MAXIMIZATION IN CEYLON CINNAMON
INDUSTRY**

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ABSTRACT

Cinnamon at present is the dominant spice in Sri Lanka in terms of the foreign exchange earnings. This study determines the possibility of applying ultra modern technology for profit maximization in Ceylon Cinnamon industry. Still Sri Lanka is earning high foreign exchange from Cinnamon industry using traditional methods without adding value using modern technologies. Selected ultra modern technology for this study was the extraction of water soluble polyphenolic type A compound from oil extracted Cinnamon bark which has anti diabetic property. This technology is a value addition to the oil extracted Cinnamon bark which is at present discarded. Technical feasibility of production technology, market feasibility of the product and financial feasibility for a pilot scale plant were studied.

The technical feasibility of production technology was determined by studying the information about the extraction procedure, equipment and technology, utilities and supportive services needed. This technology was a water soluble compound extraction method and then filtration of large molecules of using Reverse Osmosis (RO) technology. This has been a proven technology and the study revealed that there are Sri Lankan companies who could fabricate a production facility successfully.

According to the market feasibility study, the industry is billion dollar industry and there is a huge demand as of 4350 kg/yr is recorded and India and China dominating the export market while USA and Europe are main buyers. With the capacity of exporting 5,535 kg of genuine Cinnamon oil annually, Sri Lanka is in a very competitive position to get into this market. Further, as the study revealed, due to therapeutic nature of the product, the demand for Cinnamon bark water is escalating annually.

According to the financial feasibility study conducted for a pilot scale plant of a capacity of 300 kg/yr, NPV was accounted as LKR 45,490,028, the IRR was 48.75 and the cost benefit ratio was 3.17 and these promising financial indicators revealed the financial feasibility of the project.

Key words: Polyphenolic type A compound, reverse osmosis system, technical feasibility, market feasibility, financial feasibility