

Factors Affecting for Potential to Adopt Five-Star Certification: Case Study of CDA Registered Small and Medium Scale Oil Millers in Kurunegala District

RC Prasad^{1*}, SS Purasinghe², MPM Arachchige¹, NE Wedamulla¹ and AMC Amarakoon¹

¹Department of Export Agriculture, Uva wellassa University, Sri Lanka

²Coconut Development Authority, Nawala Road, Narahenpita, Sri Lanka

*chathurarathnasekara@gmail.com

Adulteration of Coconut (*Cocos nucifera*) oil is very high due to lack of proper certification for quality raw materials, improper maintenance of standard production process, physical, chemical, microbiological tests for quality determination and less attention for using labelled products. This study was aimed to identify the relationship between factors affect on small and medium scale oil millers' willingness to adopt five-star certification. Accordingly, a questionnaire survey was conducted to collect primary data from the millers in Kurunegala district. In addition, coconut oil samples derived from two processing methods (Virgin and normal) were collected from factories production and analysed after storing 3 months under room temperature of 31°C. Consequently, their physical properties (moisture content at 105°C, Lovibond colour), chemical properties (Free fatty acids, peroxide value, Iodine value, Saponification value), and microbiological properties (Aflatoxin level) for the final product was determined. Survey Physicochemical and microbiological properties were analysed using 1 sample t test, 2 sample t test by MINITAB17. The results of binary logistic regression analysis exposed that there is a positive and significant impact of product and processing ($p < 0.01$), awareness of coconut oil production ($p < 0.05$), procurement practices of raw materials ($p < 0.05$), factory and surrounding characteristics ($p < 0.05$), equipment and machinery ($p < 0.05$), documentation ($p < 0.1$) on willingness to adopt 5-Star certification. A significant difference ($p < 0.05$) was observed in colour, moisture, iodine value, peroxide value and Aflatoxin level of coconut oil; while free fatty acids level and saponification value are not significant at 0.05 level of significance. There is a positive relationship between quality management practices and chemical parameters. The study recommends improving the promotion of CDA certification as a mandatory requirement to ensure quality of coconut oil to ensure for consumers.

Keywords: Coconut Oil, Five-star Certification, Kurunegala District, Willingness to Adopt