

INTERNATIONALLY ORIENTED CASHEW TECH-INNOVATIVE SMES: A CRITICAL ANALYSIS OF TEMPERATURE AND RAINFALL VARIATION ON CASHEW (*ANACARDIUM OCCIDENTALE*) YIELD IN SRI LANKA

Fernando W.M.S.Na, Dasanayaka S.W.S.Bb, Mudalige Dc

Department of Management of Technology, University of Moratuwa, Sri Lanka
Shan.biz@hotmail.com

Abstract - Cashew is an important tropical perennial tree crop and is a major export crop in terms of foreign exchange earnings in the countries like Brazil, India and Vietnam. Cashew is a multipurpose tree crop from which almost all parts are used, the nut is to be considered as the most valuable and commercialized product of all. Cashew production and tech-innovative cashew products exportation can be affected by the variability of climatic changes and climatic factors. This study aimed at analyzing the variation of the cashew yield of internationally oriented cashew TSMEs on temperature and rainfall variation in Puttalam District of Sri Lanka. Relevant theories and empirical reviews pertaining to the study was referred in order to grasp available knowledge. In Puttalam District of Sri Lanka, totally, there are 16000 Hectares of cashew plantation is existed (Sri Lanka Cashew Corporation, 2018). In this study, it aimed a total of 1466.61 Hectares belonging to small and medium scale internationally driven technopreneurs. Simple random sampling method was utilized for data collection. This research study has collected 8 years data in relation to the cashew yield, rainfall and temperature. For the data analysis, used a time series analysis plus a regression analysis. Results revealed, the increment in annual rainfall leads to drop the annual cashew yield where decrease in annual rainfall leads to increase the annual cashew yield (Negative Relationship). The temperature variation does not materially impact upon cashew yield except the extreme increment or decrease in temperature. But temperature carries a positive relationship with the annual cashew yield. As far as the effects of rainfall and temperature on variation of the cashew yield, the rainfall effected 0.776 where temperature effected only 0.343 on the cashew yield over the concerned time duration in internationally oriented cashew TSMEs. Moreover it is highly recommended to reconsider the both given climatic factors by the entire internationally oriented cashew TSMEs with adequate up to date technologically improved machinery, tools and equipment, storage facilities for better international market performance.

Keywords: Internationalized TSMEs, Tech-Value Addition, Cashew, Weather parameters, TSMEs