BEST: International Journal of Humanities, Arts, Medicine and Sciences (BEST: IJHAMS) ISSN (P): 2348-0521, ISSN (E): 2454-4728 Vol. 5, Issue 12, Dec 2017, 139-144 © BEST Journals



AN OPTIMIZATION MODEL FOR THE VEHICLE DELIVERING FROZEN FOOD BY RESPONSE SURFACE METHODOLOGY

PARVEEN AYSHA K¹, NISHA JOSE² & S. ELIZABETH AMUDHINI STEPHEN³

^{1 & 2} Food Processing Department, Karunya University. Coimbatore, Tamil Nadu, India ³ Associate Professor In Mathematics, Karunya University, Coimbatore, Tamil Nadu, India

ABSTRACT

This paper addresses how to deliver a frozen product at a particular temperature with a particular capacity at a particular speed in a day time at lower cost. The optimization of this paper is the cost of delivery. The objective is to find the minimum delivery cost. Frozen temperature, loading weight, time and speed are the parameters used. Response surface methodology (RSM) is used in this paper to find the minimum delivery cost. And it is determined by Central composite design (CCD), statistical analysis and analytical method.

KEYWORDS: Minimum Delivery Cost, Response Surface Methodology & Central Composite Design.