

***Double Hurdle Model:
Not if, but when will Customer Attrite?***

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Abstract

The paper attempts to introduce a class of model known as Double Hurdle Models (originally proposed by Cragg (1971)), which allows the potential attrition and the extent of attrition to be modeled separately. The methodology developed in this paper clearly recognizes the existence of a group of potential attritor who would never attrite under any circumstances. Most importantly, it not only recognizes this sub set of customers, but also explicitly models the probability of actual attrition to depend on customer attributes. Finally, an application of the double hurdle model is developed for a Spanish auto portfolio and demonstrates the improvement achieved by the double hurdle model over the conventional technique in all the segments of attrition, Early-Early Attrition (EEA), Early Attrition (EA) and Not Early Attrition (NEA).

Keywords: Double Hurdle Model; Attrition Models; Logistic Regression; CRM Analytics.

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