

Dynamic Modeling of Web Purchase Behavior  
and E-Mailing Impact by Petri Net

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## **Abstract:**

In this article, the authors introduce Petri nets to model the dynamics of Web site visits and purchase behaviors in the case of wish list systems. They describe Web site activities and their transition with probability distributions and model the sequential impact of influential factors through links that better explain Web purchase behavior dynamics. The basic model, which analyzes site connections and purchases to explain visit and purchase behavior, performs better than a classical negative binomial regression model. To demonstrate its flexibility, the authors extend the wish list Petri net model to measure the impact of e-mailing intervals on visit frequency and purchase.

Keywords: Internet, wish list, e-mail, Petri net, dynamic model.