

# **Choice exploration and exploitation in purchase decisions: a longitudinal study of customers' exploration and exploitation of supermarket products.**

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**Abstract:** In non-stationary environments, the outcomes of certain choices may change over time. Therefore, people need to balance between the exploitation of presumably superior choices in order to maximize their outcomes and the exploration of seemingly inferior alternatives in order to observe environmental changes. Recent research suggests that people actually follow this principle and exploit choices they currently prefer while once in a while systematically exploring alternatives in order to update their beliefs about the environment. The present study follows up on this by extending the scope to the numerous choice options that people face in a retail store. We investigate choices from over 10,000 customers of a major UK supermarket chain over five years and find evidence that people systematically exploit and explore product choices. Furthermore, we are able to describe how their explorative behavior varies across different product categories.