**Assignments: ALY6080 90325 Integrated Experiential Learn SEC 03 Summer 2023 CPS [BOS-1-HY]**

**Module 4 Assignment — Annotated Bibliography (Article 1,2,3)**

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**Annotated Bibliography (Article 1,2,3)**

**References:**  
Peinkofer, S. T., Esper, T. L., Smith, R. J., & Williams, B. D. (2023). Assessing the Impact of Price Promotions on Consumer Response to Online Stockouts. Journal of Business Logistics, 46(4), 317-333.

**Original website:**<https://onlinelibrary.wiley.com/doi/full/10.1111/jbl.12095?saml_referrer>

**Summary:**

This empirical study focuses on how consumers react to stockouts, particularly of price-promoted products, in the e-commerce landscape. The authors deploy the expectation-disconfirmation theory (EDT) to scrutinize how price promotions impact consumers' expectations of product availability and their subsequent response to online stockouts. They discovered that in low involvement shopping scenarios, consumers demonstrate less dissatisfaction and a lower likelihood of switching to a competitor's online platform when they encounter a stockout of a discounted item. The research introduces a potential limitation of EDT in high involvement scenarios, suggesting the need for additional theoretical refinement in such contexts.

Peinkofer et al.'s research is noteworthy for its exploration of an under-researched area in e-commerce, providing valuable insights into consumer behavior and inventory management in the online retail context. Their experimental approach and robust theoretical framework elucidate significant implications for both academic study and practical applications in supply chain management. The authors convincingly argue that price promotions, despite potentially leading to stockouts, could also play a vital role in customer retention in the online retail sphere. However, they also recognize the study's limitations and suggest future research directions, including examining the impacts of different promotional activities and product types on consumer responses to stockouts, and the long-term effects of repeated stockouts.

**Usage:**

This article can assist a gift shop by providing insights on how price promotions can enhance customer retention even in the face of product stockouts, thereby informing inventory management strategies and promotional activities.

**Annotated Bibliography (Article 2)**

**References:**  
Turkmen, B. (2022). Customer Segmentation With Machine Learning for Online Retail Industry. The European Journal of Social & Behavioural Sciences, Volume 31(Issue 2), 111-136. <https://doi.org/10.15405/ejsbs.316>

**Summary:**

In this seminal work, Turkmen (2022) delves into the exploration and comparison of several customer segmentation methods, employing machine learning techniques on online retail data. The research underscores the critical role of customer segmentation in comprehending purchasing behavior and its consequential effects on pricing and demand forecasting in business. A variety of unsupervised machine learning clustering models, including K-means clustering, hierarchical clustering, Density-based Spatial Clustering of Applications with Noise (DBSCAN), and the conventional model based on recency, frequency, and monetary (RFM) values are scrutinized.

The author provides a comprehensive literature review on the evolution and applications of artificial intelligence, clustering models, and customer segmentation problems across industries. The work further discusses the adoption of artificial intelligence as a tool for learning in information systems, forecasting, prediction, and optimization across various industries, and future research directions. Finally, it provides a financial impact analysis of AI, asserting that revenues from the AI market worldwide could surpass $3,060 billion by 2024.

**Usage:**

The annotated article is of significant value to anyone seeking to understand how to process sales datasets in the retail industry, particularly from a machine learning perspective.

**Annotated Bibliography (Article 3)**

**References:**  
Turkmen, B. (2022). Customer Segmentation With Machine Learning for Online Retail Industry. The European Journal of Social & Behavioural Sciences, Volume 31(Issue 2), 111-136. <https://doi.org/10.15405/ejsbs.316>

**Summary:**

This research paper explores the application of various clustering algorithms such as Mean-shift, Density-Based Spatial Clustering of Applications with Noise (DBSCAN), Agglomerative Clustering, and K-Means in conjunction with Recency, Frequency, and Monetary value (RFM) analysis on online retail transactions. The purpose of this multidimensional analysis is to identify distinct customer groups and understand their purchasing behaviors. The researchers found that these clustering algorithms, when combined with RFM analysis, can reveal valuable insights into customer segmentation based on their RFM scores, thus informing business strategies for customer retention and profit maximization.

The findings of this research are particularly relevant to our current project that involves applying K-means clustering to an online retail store. The paper demonstrates how these algorithms can identify high-value customer segments and potentially drive strategic decisions. Future research suggested by the authors includes the application of other clustering algorithms and the use of classification algorithms to predict the purchasing behaviors of new customers.

**Usage:**

The article provides a methodology for applying K-means and other clustering algorithms, combined with RFM analysis, to identify customer segments and predict their purchasing behaviors, which can directly inform your project's strategies for customer management and resource allocation in my online retail store.