Retail Bike Store Project

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March 2024

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Situation assessment

This report presents an in-depth analysis of XYZ Bikes, a privately-owned retail bike store, leveraging a sample dataset obtained from Kaggle. The dataset delves into various facets of the store's operations, ranging from customer information and product details to revenue trends and staff performance. The primary objective is to showcase proficiency in working with SQL datasets and querying relational databases using Python.

XYZ Bikes is a dedicated retail establishment committed to providing a diverse range of bicycles, accessories, and related services. The store's mission is to create a unique and enriching shopping experience, focusing on quality products, expert advice, and a dedication to promoting a healthy and active lifestyle.

This comprehensive analysis lays the groundwork for further exploration and decision-making within XYZ Bikes. By leveraging insights into revenue trends, customer spending, top-selling products, and staff contributions, XYZ Bikes can strategically optimize operations, enhance customer satisfaction, and solidify its position in the competitive retail bike market. This report serves as a valuable resource for ongoing improvements and informed decision-making within XYZ Bikes.

Executive Summary

This business report presents a comprehensive analysis of a retail bike store's sample dataset obtained from Kaggle. The dataset comprises multiple tables, and the analysis primarily focuses on understanding the store's operations, customer demographics, revenue trends, and top-performing products.

The dataset includes information on various tables such as brands, categories, customers, order items, orders, products, staff, stocks, and stores. Notable observations include the identification of duplicates in customer names, the uniqueness of email addresses, and a diverse product range with temporal information spanning from 2016 to 2018.

Upon delving into revenue analysis among the stores, Baldwin Bikes emerges as the top revenue generator, surpassing Santa Cruz Bikes and Rowlett Bikes combined.

Moreover, the revenue trajectory shows an increase from 2016 to 2017 but experiences a substantial decline in 2018, resulting in a nearly 48% decrease compared to the previous year. Further exploration breaks down revenue by month for each year, revealing varying monthly revenue dynamics. April consistently emerges as the month with the highest total revenue across the three years, possibly influenced by summer anticipation.

Individual customer spending is highlighted, with Sharyn H. holding the record for the highest expenditure. Product-specific revenue analysis showcases top-selling products such as the Trek Slash 8 27.5 - 2016 and Electra Cruiser 1 (24-Inch) - 2016.

A year-wise examination of the top-selling products reveals distinctive trends, with notable shifts in product performance. The analysis extends to identifying the top three staff members contributing significantly to overall revenue – Marcelene Boyer, Venita Daniel, and Genna Serrano.

This report sets the stage for in-depth exploration and future iterations, aiming to provide valuable insights into the retail bike store's operations, customer behavior, and revenue patterns. Subsequent refinements and investigations are anticipated to enhance the understanding of the dataset and contribute to strategic decision-making.

Conclusion

The analysis of the bike store dataset has provided valuable insights into customer behavior, product performance, and staff contributions to revenue. Identifying anomalies, understanding revenue patterns, and recognizing top performers are crucial for strategic decision-making. Further iterations of this analysis may refine findings and uncover additional insights for optimizing business operations.

This report serves as a foundation for a more in-depth exploration of the dataset, allowing stakeholders to make informed decisions and implement targeted strategies for business growth.

Reference

www.kaggle.com. (n.d.). Bike Store Relational Database | SQL. [online] Available at: https://www.kaggle.com/datasets/dillonmyrick/bike-store-sample-database/data [Accessed 5 Mar. 2024].