

BUSINESS ANALYSIS ADVENTURE WORKS CYCLES

Trends and Growth analysis



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COMPANY OVERVIEW

Adventure Works Cycles is a large multinational bicycle manufacturer, with headquarters located in Bothell, Washington. The company has approximately 300 employees, 29 of which are sales representatives. The primary distribution channel for Adventure Works Cycles through the retail stores of their resellers. These resellers are in Australia, Canada, France, Germany, the United Kingdom, and the United States. Adventure Works Cycles also sells to individual customers worldwide by means of the Internet.

Adventure Works Cycles has five major product offerings:

- Bikes – Three primary bike product lines: Mountain, Road, and Touring
- Accessories – Examples include helmets and water bottles
- Clothing – Examples include jerseys and biking shorts
- Components – Examples include bottom brackets and frames
- Services – Examples include premium service and standard service

BUSINESS PROBLEMS

Product/Sales Growth is a key metric that indicates the success or failure of a business in terms of revenue generated from the sale of its products or services. In order to achieve growth, it is important for a business to identify trends in the market and effectively market its products to potential customers. However, if a business is unable to determine trends, it may struggle to understand the changing needs and preferences of its customers, and therefore fail to adapt its products or services accordingly. This could result in a decline in sales, and ultimately hinder the business's ability to achieve growth.

Similarly, if a business is unable to effectively market its products and reach its target customers, it may struggle to generate the necessary sales to achieve growth. This could be due to a lack of understanding of the target market, inadequate marketing strategies, or insufficient resources allocated to marketing efforts.

PROPOSED LINE OF ANALYSIS

Will focus on trend and analysis of sales in different regions and periods.

- Analyze demographics of customers
- Comparing the United States market along with others
- How time periods compare

EXPECTATIONS

To foster business growth and boost profits in the future, Adventure Works Cycles would benefit from gaining a comprehensive understanding of the market and trends, which would enable the company to make informed and strategic decisions.

What is expected to show in this report

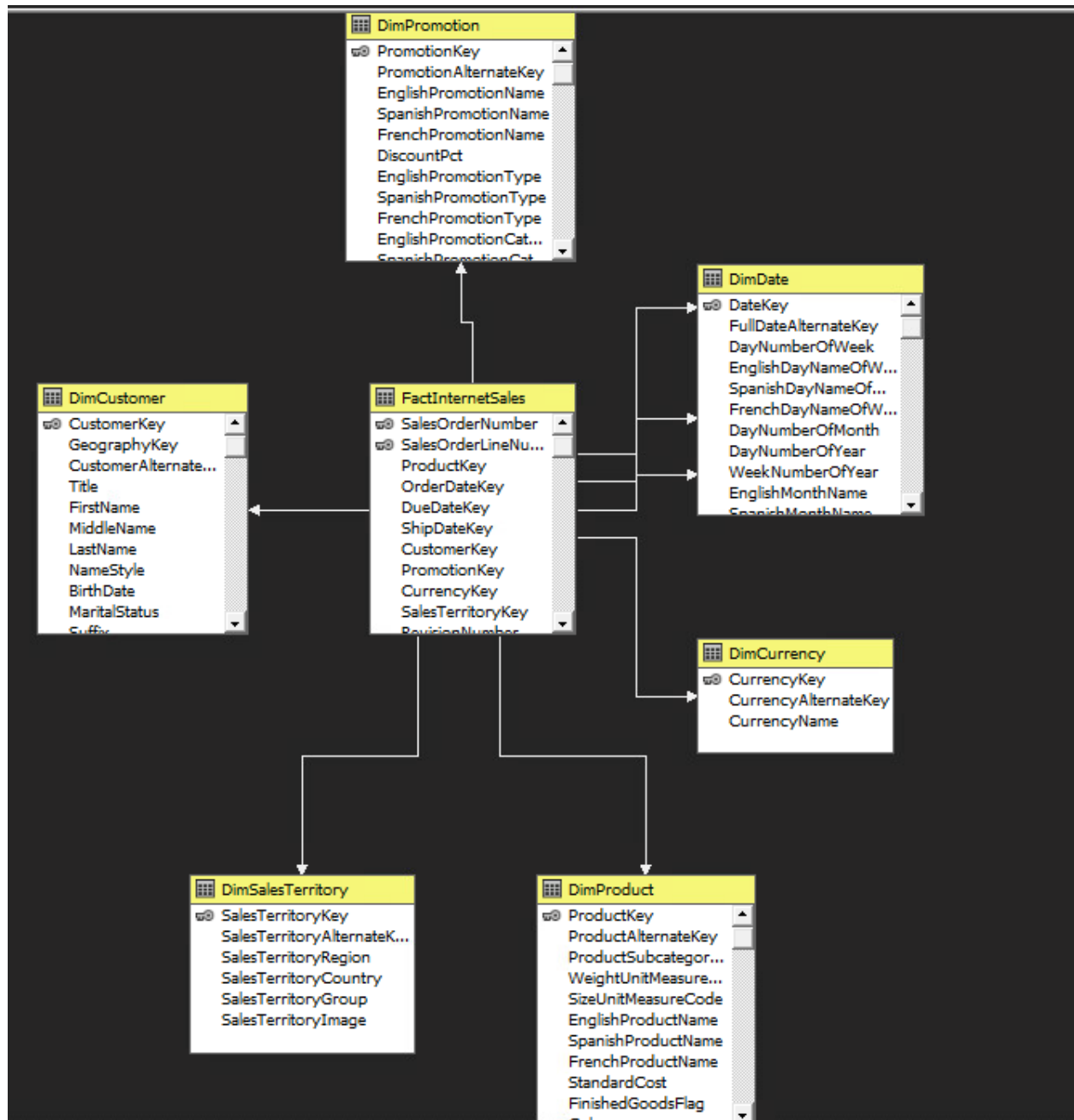
- Territory units were sold
- Gender of customers and attributes
- Sales and profit trends
- Influences of units sold

DATA PROFILIE – SQL Views

```
CREATE VIEW Trend_Growth_Analysis AS

SELECT
    d.CalendarYear,
    p.EnglishProductName,
    SUM(s.SalesAmount) AS TotalSalesAmount,
    COUNT(DISTINCT s.CustomerKey) AS UniqueCustomers,
    COUNT(DISTINCT s.OrderDateKey) AS UniqueOrders,
    AVG(s.SalesAmount) AS AverageSalesAmount,
    MIN(s.SalesAmount) AS MinimumSalesAmount,
    MAX(s.SalesAmount) AS MaximumSalesAmount,
    YEAR(MAX(s.TransactionDate)) AS LatestYearOfSales,
    YEAR(MIN(s.TransactionDate)) AS EarliestYearOfSales
FROM
    FactInternetSales s
    JOIN DimProduct p ON s.ProductKey = p.ProductKey
    JOIN DimDate d ON s.OrderDateKey = d.DateKey
GROUP BY
    d.CalendarYear,
    p.EnglishProductName
```

SSAS CUBE SCHEMA



ANALYSIS REPORT & FINDINGS

After analyzing the Adventure Works Cycles raw data using Visual Studios, SQL Server Analysis Services, and TABLEAU, the following information has been discovered in relation to the questions posed:

- According to Sheet 4, the trends in sales and order quantity were analyzed based on age. The results reveal that individuals born in 1975 had the highest order quantity compared to other age groups.
- The introduction of new product categories had a positive impact on overall sales compared to previous years
- The United States saw a significant increase in the number of units sold across all three subcategories of Bicycles compared to other regions, except Australia
- According to Bar chart highest sold product was the mountain-200 Black,.46
- The Scatter plot shows the relationship between sales and product price

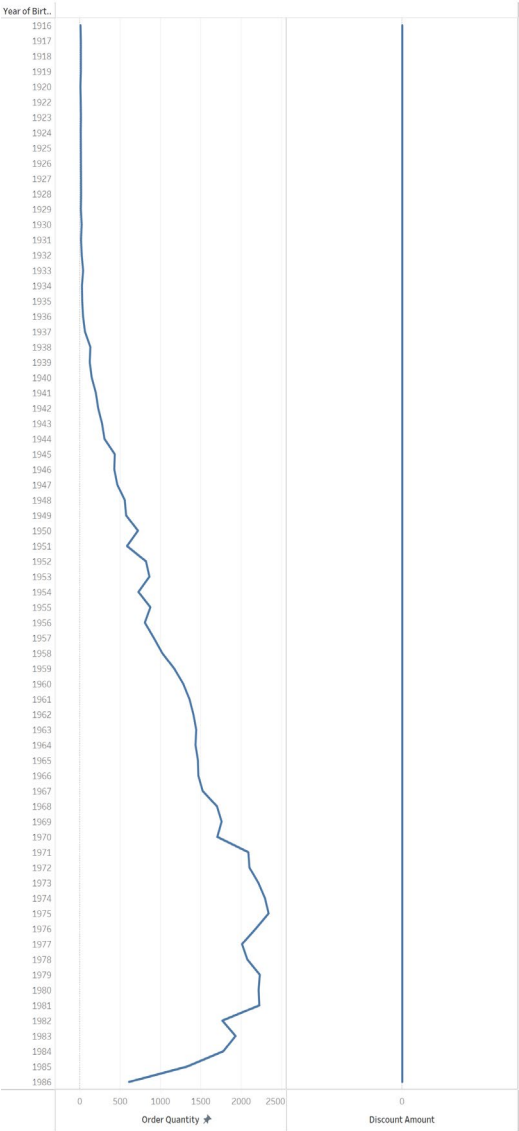
These findings provide valuable insights into trends and growth patterns in the AdventureWorksDW2019 database, which can help inform business strategies for increasing sales and reaching customers effectively.

SUMMARY OF FINDINGS

The analysis of the AdventureWorksDW2019 database reveals some key insights about the success of certain business decisions in driving sales growth. The addition of accessories and clothing to internet sales, as well as the inclusion of Touring Bikes in the Bike Category, proved to be profitable and resulted in significant growth across all regions. The analysis also revealed that the United States surpassed Australia as the leading seller of internet Bicycles in 2013.

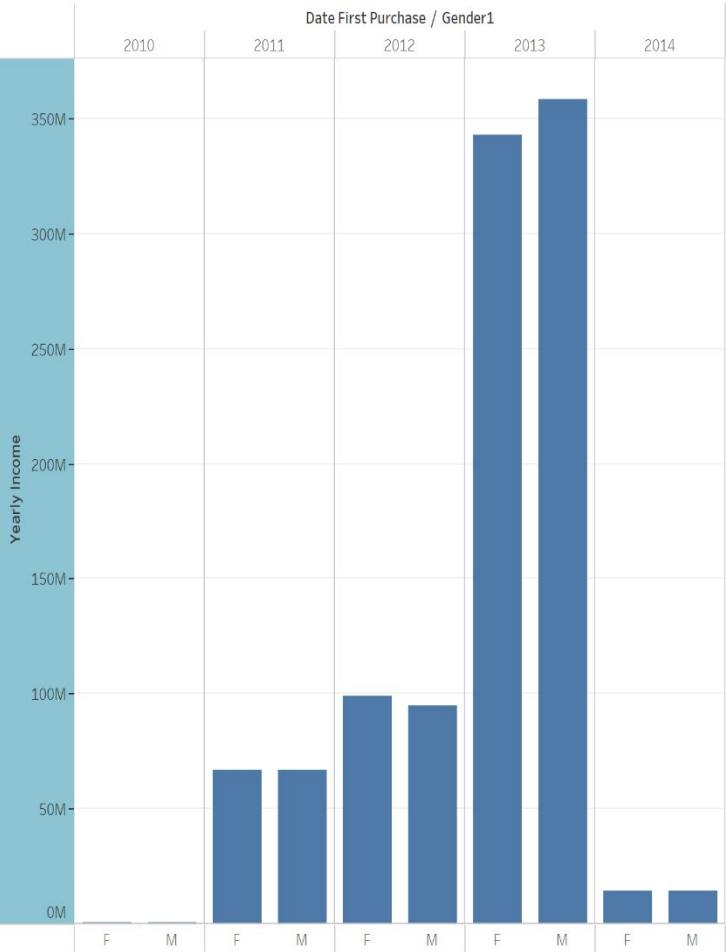
Furthermore, the sales trends among specific education levels and customer occupations varied greatly across different regions. While some regions had High School level customers as their top buyers, others had customers with Graduate Degrees. In terms of customer occupations, Management and Skilled Professionals topped half of the regions while Clerical had a strong upper hold on the other half of the regions. Germany and France appeared to have a different customer base compared to the other regions. These findings could potentially help inform marketing strategies and target specific customer segments for better sales growth.

Sheet 4



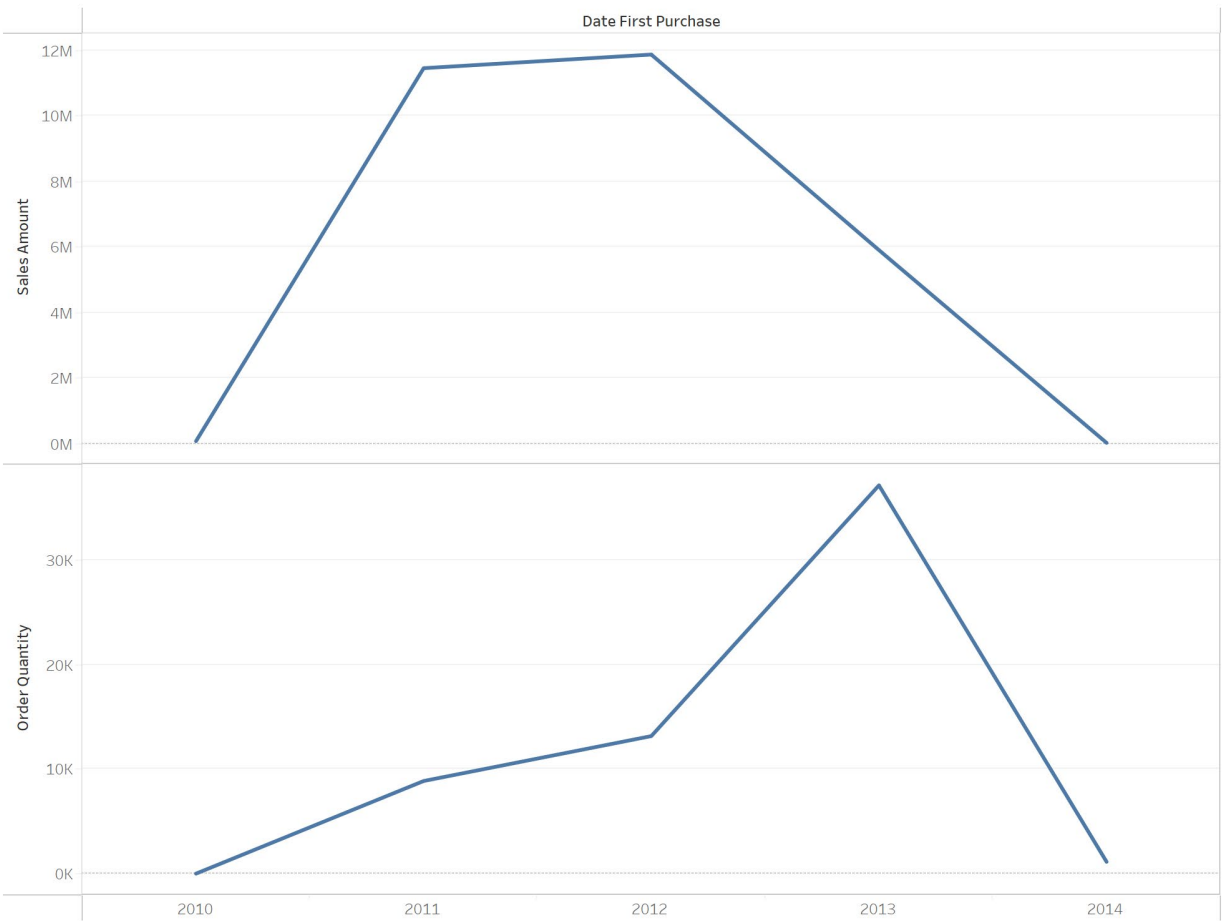
The trends of sum of Order Quantity and sum of Discount Amount for Birth Date Year.

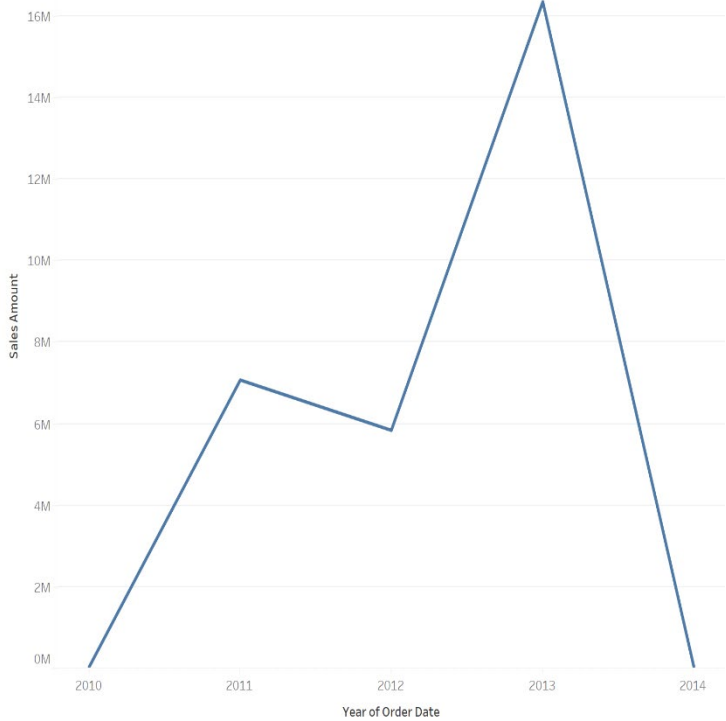
Sheet 5



Sum of Yearly Income for each Gender1 broken down by Date First Purchase Year.

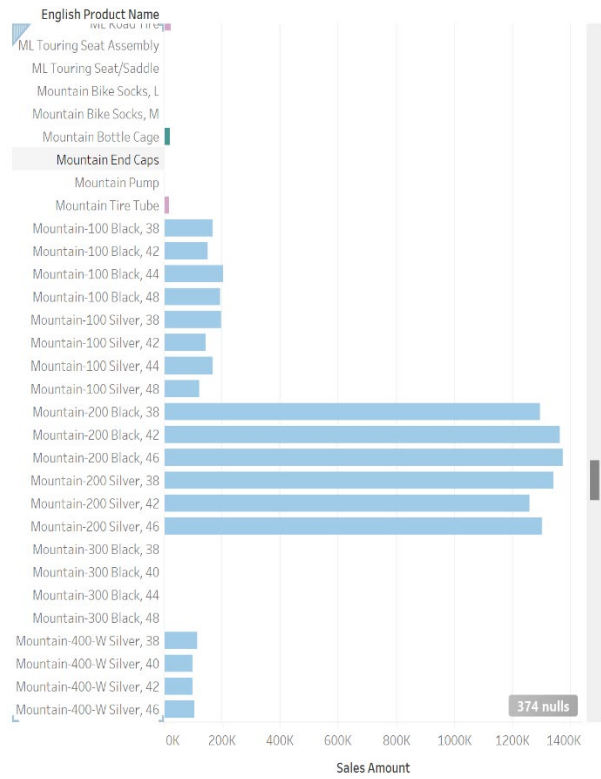
Dashboard 1





The trend of sum of Sales Amount for Order Date Year.

Bar chart selling products



scatter plot

