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| REPORT Final Project |

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| Carerha – Data Analysis Track |

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| Data importing Import the data sets from “Get Data” with files type “Text/CSV”. Data transformation  1. Customer table:   Delete column ‘suffix’, ‘Totalchildren’, ‘NumberChildrenAtHome’, ‘SpanishEducation’, ‘FrenchEducation’, ‘SpanichOccupation’, ‘FrenchOccupation’, ‘Test. Those columns aren’t useful in the analysis process.   1. Date Table:   Delete column ‘SpanishDay’, ‘FrenchDay’, ‘spanichMonth’, ‘FrenchMonth’. Those columns aren’t useful in the analysis process.   1. Product Subcategory table:   Delete columns – ‘SpanishProduct’, ‘FrenchProduct’. Those columns aren’t useful in the analysis process.   1. InternetSales table:   Delete column – ‘UnitDiscountPrice’, ‘DiscountAmount’, ‘CarrierTrackungNumber’, ‘CustomerNumber’. Those columns aren’t useful in the analysis process.  Change data type – ‘OrderDateKey’, ‘DueDataKey’, ‘ShipDateKey’ from Text to Date.   1. Product Category table:   Delete column – ‘SpanishProductCategoru’, ‘FrenchProductCategory’. Those columns aren’t useful in the analysis process.   1. Product table:   Delete column – ‘SpanishProduct’, ‘FrenchProduct’, ‘FrenchDescription’, ‘ChineseDescription’, ‘HerbewDescrition’, ‘ThaiDecription’, ‘GermanDescription’, ‘JapaneseDescription’, ‘TurkishDescription’, ‘Weight’. Those columns aren’t useful in the analysis process.   1. Sales Territory table:   Delete Raw number 11. This raw has no values. Data Exploring  * **Fact Table:** Internet Sales table (This is an ecommerce business) * **Dimensions Table:** Customer table – Date table – Product table- Subproduct table – Sales territory table – Product category table.  Data Modeling Internet sales – Customer (customer key)  Customer – Date (Date first purchase – Full date alternate key)  Internet sales – Product (product key)  Product – Product subcategory (product subcategory key)  Product subcategory – Product category (product category key)  Internet sales – Sales territory (sales territory key) Analysis and visualization  1. Sales Analysis  * Card of Sum of sales amount * Card of Total sales including tax and freight: creating measure and by using DAX   =SUM(InternetSale[SalesAmount])+SUM(InternetSale[Freight])+SUM(InternetSale[TaxAmt])   * Card of Average profit: creating new column and by using DAX   InternetSale[Sales Including Tax and Freight]-InternetSale[TotalProductCost]   * Card of Growth rate: creating new measure and by using DAX   VAR Sales2014= CALCULATE(SUM(InternetSale[SalesAmount]),InternetSale[Year]=2014)  VAR Sales2013 = CALCULATE(SUM(InternetSale[SalesAmount]),InternetSale[Year]=2013)  RETURN DIVIDE(Sales2014-Sales2013,Sales2013)   * Funnel of time series of the sum of amount sales over the years. * Line chart of time series of the average profit margin ratio over the years.   Profit Margin = DIVIDE( InternetSale[profiit], InternetSale[Sales Including Tax and Freight])   * Table of sales territory country and their sum amount sales. * Pie chart of number of orders by English product category name. * Slicer of sales territory country. * Slicer of English product category name.  1. Customer analysis:  * Stacked column chart of sum of orders quantity by yearly income of the customers. * Pie chart of the gender. * Donut chart of average purchase frequency by sales territory country. creating new measures and using DAX   Purchase Count = DISTINCTCOUNT(InternetSale[ProductKey])  Average Purchase Frequency = AVERAGEX(VALUES(InternetSale[CustomerKey]), [Purchase Count]).   * Stacked bar chart of purchase count by year. * Line chart of sum order quantity bye age. Creating new column and using DAX   Year = YEAR(InternetSale[OrderDate])  Age = YEAR(TODAY()) - YEAR([Birthdate]) - IF(MONTH(TODAY()) < MONTH([Birthdate]) || (MONTH(TODAY()) = MONTH([Birthdate]) && DAY(TODAY()) < DAY([Birthdate])), 1, 0)   1. Product analysis:  * Card of accessories sales   accessories sales = CALCULATE(SUM(InternetSale[SalesAmount]),ProductCategory[EnglishProductCategoryName]="Accessories")   * Card of bikes sales   bikes sales = CALCULATE(SUM(InternetSale[SalesAmount]), ProductCategory[EnglishProductCategoryName]="Bikes")   * Card of clothing sales   clothing sales = CALCULATE(SUM(InternetSale[SalesAmount]),ProductCategory[EnglishProductCategoryName]="Clothing")   * Stacked bar chart of number of orders by English product category name . * Tree map of sum sales amount by sales territory country. * Pie chart of sum of profit by English product category name. * Area line chart of bikes sales by year * Area line chart of accessories sales by year. * Area line chart of clothing sales by year. * Slicer of English product category name.  Business questions and insights Business Questions  1. How can we market more effectively in our top-selling countries?  2. How can we boost accessory and clothing sales alongside bikes?  3. Which age group buys the most, and how can we target them better?  4. How can we gather and use customer feedback to improve our products and services?   1. Insights:   - Total sales are $32.44M with an average profit.  - Sales are slightly down (-0.2%), but overall increasing.  - The top three countries are the USA, Australia, and the UK.  - Bikes make up 37% of orders, accessories 44.5%, and clothing 18.2%.  -More women (51%) buy than men (49%).  -We don't know which age group buys the most.  - Bikes sell the most, making up a big chunk of sales.  - Accessories bring in the most profit, followed by bikes and then clothing.  - Even though clothing makes less profit, it still sells a good amount.  - Every year, all the product categories are selling more.   1. Recommendations:   - Focus marketing on top countries.  - Promote accessories and clothing with bikes.  - Keep an eye on sales trends for steady growth.  - Advertise more to women because they buy more.  - Find out which age group buys the most and focus on them.  - Learn more about customers to advertise better.  -. Ask customers what they think to make things better.  - Focus on selling more bikes by advertising them more and offering more types.  - Try to make more profit from accessories by selling higher-priced items and teaming up with others.  - Keep selling clothing, but try to make it more unique and better quality.  - Keep an eye on what people like so you can keep making more money. | | |
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| Steps |

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| Heading 1 Want to insert a picture from your files or add a shape, text box, or table? You got it!   * On the Insert tab of the ribbon, just tap the option you need. * Find even more easy-to-use tools on the Insert tab, such as to add a hyperlink or insert a comment.  Heading 2 View and edit this document in Word on your computer, tablet, or phone. You can seamlessly save the document to the cloud from Word on your Windows, Mac, Android, or iOS device. |