**Project : Product**

**Essies Ltd is launching a new product and in the initial stage they are targeting some segmented customer and region. David the sales head has just got the new details from the frontline retailers. He has appointed Benson to infer some important insights.**

**Benson starts the execution after he understands the business with the following:-**

**• The data requires some reference table to be created which can be used for using the date and products.**

**• It is important that the product Category table is kept separate in the model.**

**• Benson decides to keep the Product Sub category table to be kept as separate table.**

**• Retails sales needs to have priority in terms of High, Mid & Low.**

**• David needs to have Interactive slicer in terms of Country Flag in the report**

**• Essies Dashboard needs to highlight the following:-**

**Units Sold by Category**

**Total Unit sold**

**Retail Unit Sold**

**Sales Unit Sold**

**• Among all the new Retailer top 10 should be highlighted**

**• Top performing products in sales**

**• Top performing in subcategories.**

**Marketing head John has also carried a big campaign to penetrate the inclusive and he is also keen to know the following details:-**

**• Unit sold in Promotion events in terms of reseller, no discount and Customers**

**• Unit sold in terms Components, Accessories, clothing, Bikes**

**• Unit sold in terms of retail counter.**

We have given "**EssiesLtd**" Excel Data.

The data consists of following tables:

Currency, Cust, Emp\_Details, Product Promotion, Region, Reseller, RetailSales, RetailsCounters,

Sales Details, Sales Territories.

**Initial observation and actions using power query editor:**

**=>**Datatypes of some columns  of all the tables were not proper and they were corrected properly using power query editor.

To change the datatype of a column, First we need to select the column which we need to change from the Data view section.

On selecting the column, Under Column tools, we can change Data type and Format.

For example, if the column is unit cost, then we can change the Data type as decimal number and Format as Currency to display $ sign before each value.

**=>**In Cust table:

Removed AddressLine2 column as it is filled completely with null values.

Title column is filled with null values and few values are not properly assigned with respect to Gender and Marital Status columns.

Here, we can delete existing Title column and create a custom Title column which can properly assign titles based on Gender and Marital Status columns.

Switch to power query editor,  under Add Column section, click on Custom Column, give the column name as Title and enter the below conditional formula:

**if** [Gender]="F" and [MaritalStatus]="S" **then** "Ms."**else** **if** [Gender]="F" and [MaritalStatus]="M" **then** "Mrs."**else** **if** [Gender]="M" **then** "Mr." **else** "Other"

lets merge FirstName and LastName columns by holding ctrl and selecting those two columns.

Now on right clicking on any selected column, we can find Merge Columns option. click on it.

Now, the Merge Column window pop ups. Select Separator as Space and click on ok.

Now merge this resultant column with the Title in the same way and give the merged column as CustomerName.

**=>**In Emp\_Details table:

Removed ParentEmployeeNationalIDAlternateKey column as it a complete blank column.Merged  FirstName, MiddleName and LastName columns and renamed it as EmployeeName.

**=>**In Reseller table:

Merged AddressLine1 and AddressLine2 and renamed it as Address.

**=>**In RetailsCounters table:

Merged AddressLine1 and AddressLine2 and renamed it as Address.

**=>**In Sales Details table:

CarrierTrackingNumber and CustomerPONumber columns are removed as they are completely filled with null values.

Added Date table using M query function code for date related measures.

**Calculating Total units sold, Retail units sold, Sales units sold and units sold by Category**

Created a measure table "Important Measures" and kept the below important measures under it.

**Retail Units Sold:**

Calculated using below DAX formula by applying SUMX on "OrderQuantity" column of "RetailSales" table.

**Retail** Units Sold = SUMX(RetailSales,RetailSales[OrderQuantity])

**Sales Units Sold:**

Calculated using below DAX formula by applying SUMX on "OrderQuantity" column of "Sales Deatils" table.

**Sales** Units Sold = SUMX('Sales Details','Sales Details'[OrderQuantity])

**Total Units Sold:**

Calculated using below DAX formula by adding retail units sold and sales units sold.

**Total** Units Sold = [Retail Units Sold]+[Sales Units Sold]

Text, whiteboard

Description automatically generated

**Units Sold by Category in terms of Accessories, Components, Clothing and Bikes**

Select Pie Chart and Drag & drop Sales and Retail units sold measures to Values field and Product category to Legend field.

Chart, pie chart

Description automatically generated

**Retails sales needs to have priority in terms of High, Mid & Low.**

To do this:

Switch to power query editor and go to Retail sales table

click on 'Custom Column' under 'Add Column' section.

Then a window pop ups and give the column name as 'Sales Priority' and give the below custom column formula:

**if** [SalesAmount]<500 **then** "Low Sales"

**else** **if** [SalesAmount]>500 and [SalesAmount]<1000

**then** "Mid Sales"

**else** **if** [SalesAmount]>1000 **then** "High Sales"

**else** "Others"

Table

Description automatically generated

**Unit sold in Promotion events in terms of reseller, no discount and Customers**

In the Report View Section, Select text table from the visual. Then drag and drop 'English Promotion Category', 'Retail Units Sold', 'Sales Units Sold', 'Total Units Sold', 'Customer key'.

Table

Description automatically generated

Create another measure table "Specific Measures" to keep top performers measures at one place.

**Top performers in Product Category**

Implemented below DAX formula:

ProductCategory TopPerformers = CALCULATE([Total Sales],**FILTER**(**VALUES**('Product'[EnglishProductName]),

**IF**(RANKX(**ALL**('Product'[EnglishProductName]),[Total Sales],,**DESC**)<=10,[Total Sales],BLANK())))

Chart, bar chart

Description automatically generated

Insight: Here Top 10 categories are Bikes with different models

**Top performers in Product SubCategory:**

Implemented below DAX formula:

SubCategory TopPerformers = CALCULATE([Total Sales],**FILTER**(**VALUES**('Product Sub-Category'[Subcategory]),

**IF**(RANKX(**ALL**('Product Sub-Category'[Subcategory]),[Total Sales],,**DESC**)<=10,[Total Sales],BLANK())))

Table

Description automatically generated

Bike sales and its components holds more sales and after that clothing accessories holds more sales.

Import "Enlighten World Flags" slicer by clicking on Get More Visuals. Drag and drop "English Country Region Name" from Region  to Country field.

**Dashboard:**

Table

Description automatically generated

Clicking on each country flag gives the overall insights about all visuals.