Smartinternz externship

Data Analytics with IBM cognos Analytics
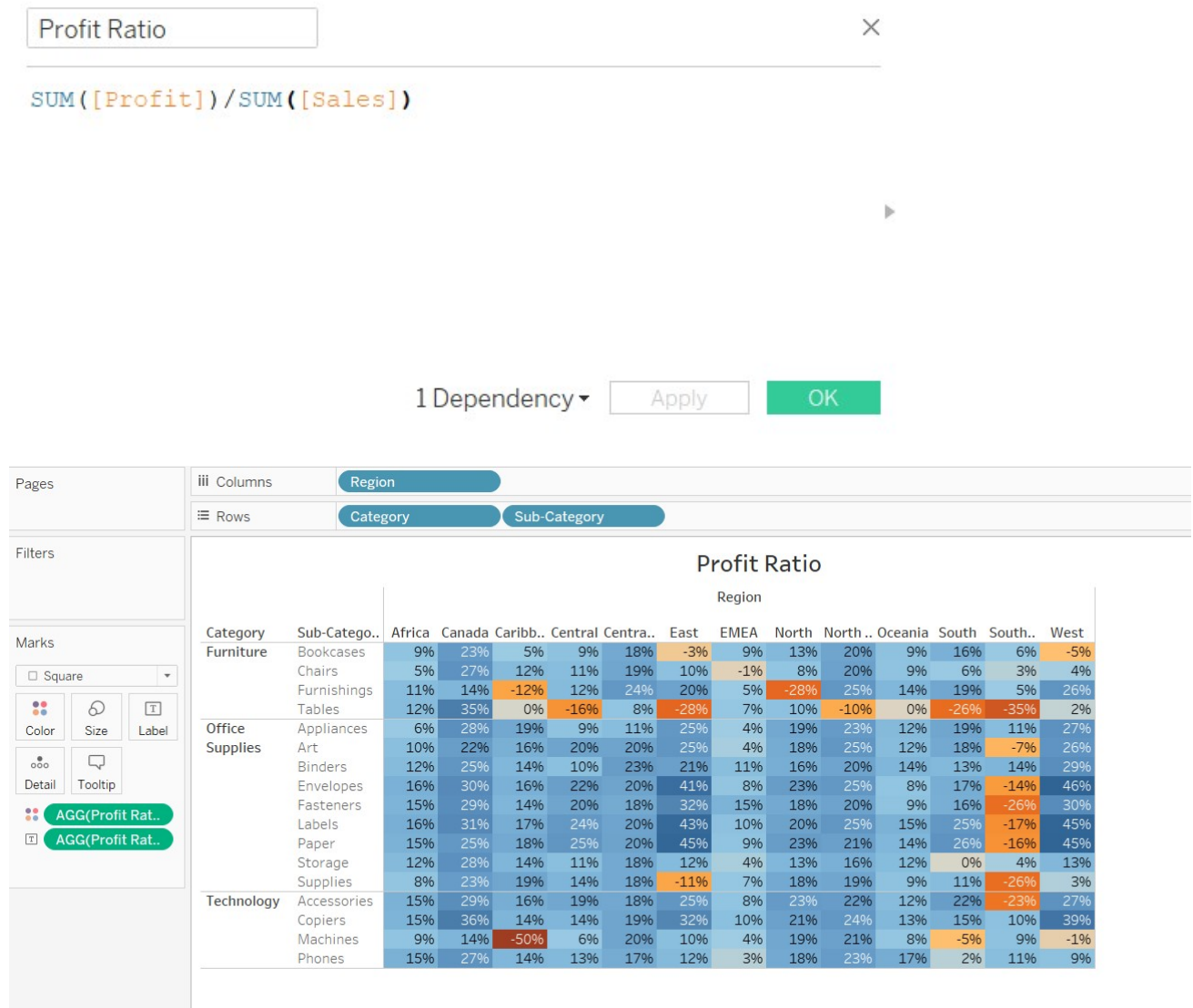
Assignment 4

Submitted by : Anisha Kumar
Email ID : anisha.21bce7239@vitapstudent.ac.in
Registration Number : 21BCE7239

BASIC CALCULATIONS

Here are some of the basic calculations performed on the *Global Superstore* dataset over Tableau:

1. Profit Ratio

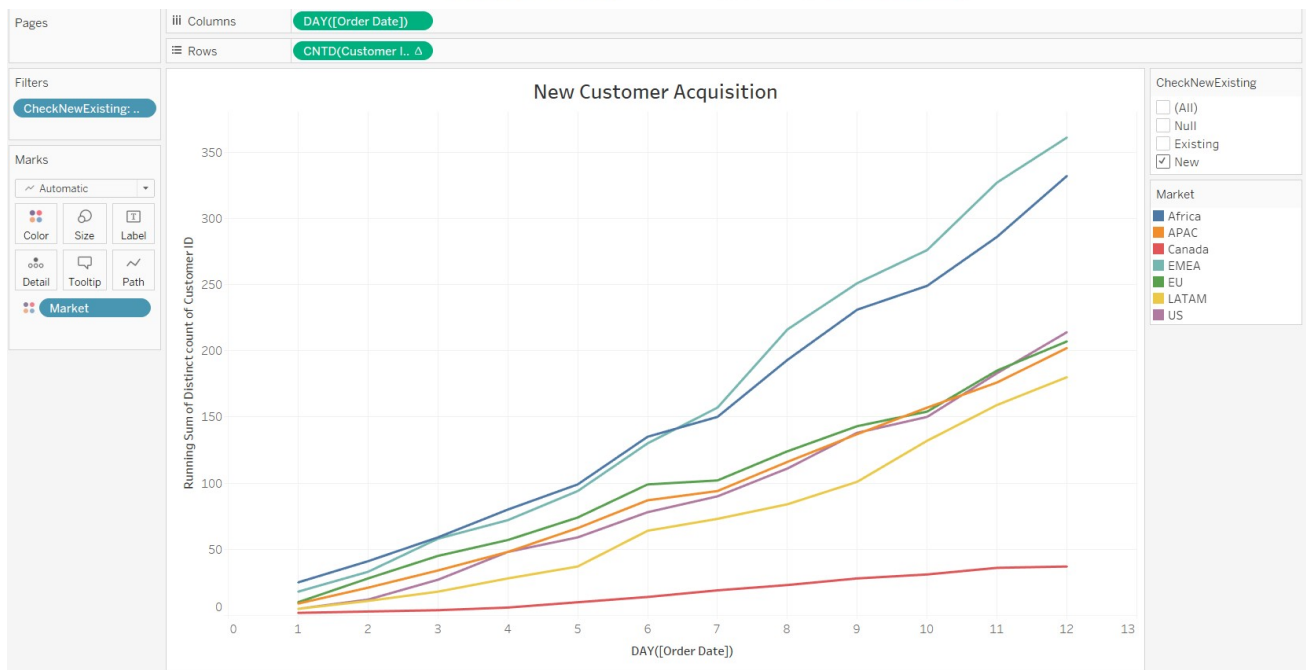Profit Ratio   ✕

`SUM([Profit])/SUM([Sales])`

▶

1 Dependency ▾   Apply   OK

Pages		

| ⫶⫶ Columns | | Region |
| ≣ Rows | | Category | Sub-Category |

Filters

Marks

☐ Square ▾

Color Size Label

Detail Tooltip

▦ AGG(Profit Rat..
T AGG(Profit Rat..

Profit Ratio

Region

Category	Sub-Catego..	Africa	Canada	Caribb..	Central	Centra..	East	EMEA	North	North ..	Oceania	South	South..	West
Furniture	Bookcases	9%	23%	5%	9%	18%	-3%	9%	13%	20%	9%	16%	6%	-5%
	Chairs	5%	27%	12%	11%	19%	10%	-1%	8%	20%	9%	6%	3%	4%
	Furnishings	11%	14%	-12%	12%	24%	20%	5%	-28%	25%	14%	19%	5%	26%
	Tables	12%	35%	0%	-16%	8%	-28%	7%	10%	-10%	0%	-26%	-35%	2%
Office Supplies	Appliances	6%	28%	19%	9%	11%	25%	4%	19%	23%	12%	19%	11%	27%
	Art	10%	22%	16%	20%	20%	25%	4%	18%	25%	12%	18%	-7%	26%
	Binders	12%	25%	14%	10%	23%	21%	11%	16%	20%	14%	13%	14%	29%
	Envelopes	16%	30%	16%	22%	20%	41%	8%	23%	25%	8%	17%	-14%	46%
	Fasteners	15%	29%	14%	20%	18%	32%	15%	18%	20%	9%	16%	-26%	30%
	Labels	16%	31%	17%	24%	20%	43%	10%	20%	25%	15%	25%	-17%	45%
	Paper	15%	25%	18%	25%	20%	45%	9%	23%	21%	14%	26%	-16%	45%
	Storage	12%	28%	14%	11%	18%	12%	4%	13%	16%	12%	0%	4%	13%
	Supplies	8%	23%	19%	14%	18%	-11%	7%	18%	19%	9%	11%	-26%	3%
Technology	Accessories	15%	29%	16%	19%	18%	25%	8%	23%	22%	12%	22%	-23%	27%
	Copiers	15%	36%	14%	14%	19%	32%	10%	21%	24%	13%	15%	10%	39%
	Machines	9%	14%	-50%	6%	20%	10%	4%	19%	21%	8%	-5%	9%	-1%
	Phones	15%	27%	14%	13%	17%	12%	3%	18%	23%	17%	2%	11%	9%

2. New Customer Acquisition

CheckNewExisting   ✕

```
IIF([FixedOrderDate] = [Order Date], "New", "Existing")
```

▶

1 Dependency ▾   Apply   OK

Pages

Columns   DAY([Order Date])

Rows   CNTD(Customer I.. △)

Filters
CheckNewExisting: ..

Marks
∿ Automatic ▾

| Color | Size | Label |
| Detail | Tooltip | Path |

Market

CheckNewExisting
- ☐ (All)
- ☐ Null
- ☐ Existing
- ☑ New

Market
- ■ Africa
- ■ APAC
- ■ Canada
- ■ EMEA
- ■ EU
- ■ LATAM
- ■ US

New Customer Acquisition

Y-axis: Running Sum of Distinct count of Customer ID (0 to 350)

X-axis: DAY([Order Date]) (0 to 13)

LOD EXPRESSIONS

Here are some examples of LOD expressions used on the *Global Superstore* dataset over Tableau:
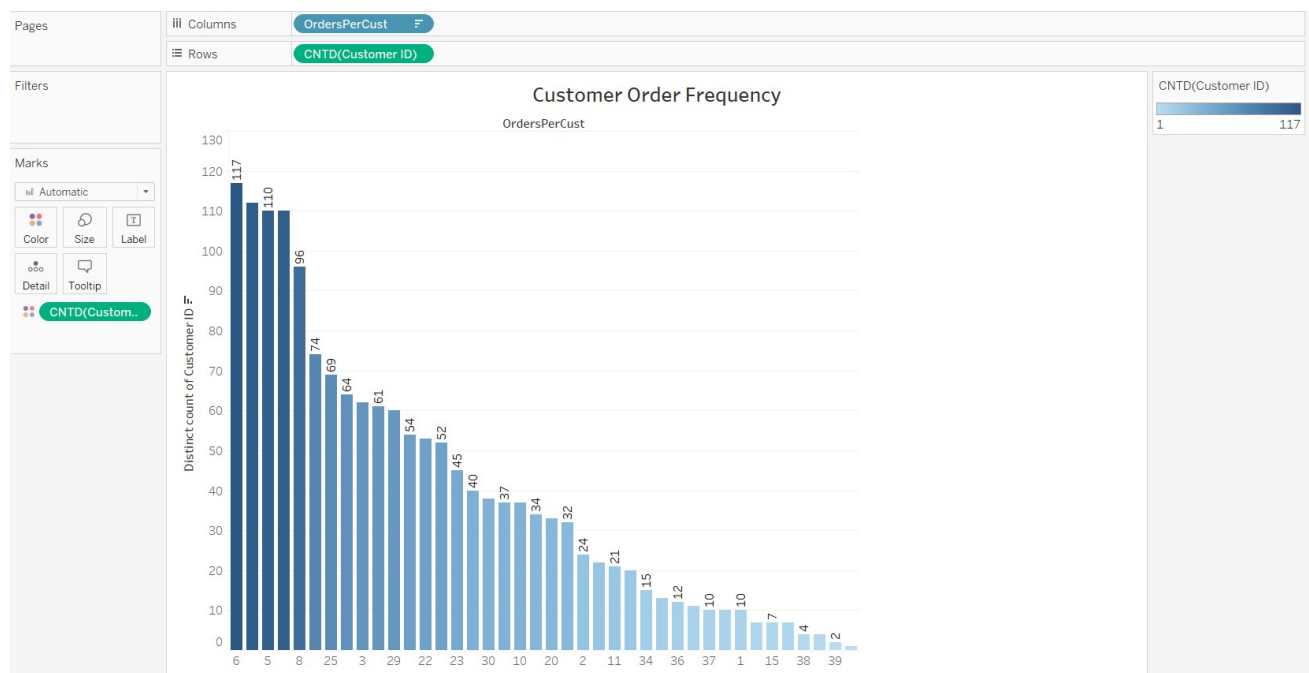
1. Customer Order Frequency


```
OrdersPerCust                                    ✕

{FIXED [Customer ID] : COUNTD([Order ID])}



                                                  ▶


The calculation is valid.     1 Dependency ▾   Apply      OK
```

2. Repetitive Orders by Old Customers (Quarterly Purchases)

First Purchase ×

```
{FIXED [Customer ID] : MIN([Order Date])}
```

The calculation is valid.   4 Dependencies ▾   Apply   OK

Repeat Purchase ×

```
IIF([Order Date] > [First Purchase], [Order Date], NULL)
```

3 Dependencies ▾   Apply   OK

Second Purchase ×

```
{ FIXED [Customer ID] : MIN([Repeat Purchase]) }
```

2 Dependencies ▾   Apply   OK

ıİİ Columns   Quarter

≡ Rows   ⊟ YEAR(First Purch..   ⊞ QUARTER(First P..

CNTD(Customer ID)
1   94

Repetitive Orders by Old Customers (Quarterly Purchases)

Year of F..	Quarter ..	Lapsed	0	1	2	3	4	5	6	Quarter 7	8	9	10	11	12	13	14	15
2011	Q1																	
	Q2																	
	Q3																	
	Q4																	
2012	Q1																	
	Q2																	
	Q3																	
	Q4																	
2013	Q1																	
	Q2																	
	Q3																	
	Q4																	
2014	Q1																	
	Q2																	
	Q3																	
	Q4																	