

## 1. Total Sales

Cube: Sale OLAP Full

Metadata Functions

Search Model

Measure Group: <All>

Sale OLAP Full

- Measures
  - Orders
    - Discount
    - Orders Count
    - Profit
    - Quantity
    - Sales
    - Shipping Cost
- KPIs
- Dim\_Customer
  - Customer ID
- Dim\_Location
  - City
  - Country
  - Location ID
  - Region
  - State
- Dim\_Orders
- Dim\_Product
- Dim\_Time
  - Order Day
  - Order Month
  - Order Year
  - Members
    - Order Year
  - Time ID

```
//1. Total Sales
SELECT [Measures].[Sales] ON COLUMNS
FROM [Sale OLAP Full];
```

174 %

Messages Results

Sales
12642501.90988

## 2. Total Sales by Country

Cube: Sale OLAP Full

Metadata Functions

Search Model

Measure Group: <All>

Sale OLAP Full

- Measures
  - Orders
    - Discount
    - Orders Count
    - Profit
    - Quantity
    - Sales
    - Shipping Cost
- KPIs
- Dim\_Customer
  - Customer ID
- Dim\_Location
  - City
  - Country
  - Location ID
  - Region
  - State
- Dim\_Orders
- Dim\_Product
- Dim\_Time
  - Order Day
  - Order Month
  - Order Year
  - Members
    - Order Year
  - Time ID

```
//2. Total Sales by Country
SELECT [Measures].[Sales] ON COLUMNS,
[Dim_Location].[Country].[Country] ON ROWS
FROM [Sale OLAP Full];
```

174 %

Messages Results

	Sales
Syria	5310.63
Taiwan	7647.63
Tajikistan	242.784
Tanzania	26816.139
Thailand	77051.9550000001
The Gambia	19.98
Togo	4146.42
Trinidad and Tobago	6881.16448
Tunisia	1760.79
Turkey	108507.948
Turkmenistan	2027.061
Uganda	1621.935
Ukraine	86857.17
United Arab Emirates	744.12
United Kingdom	528576.2999999999
United States	2297200.86029996
Uruguay	9712.544
Uzbekistan	7329.87
Venezuela	26587.82956
Vietnam	65210.0658
Western Sahara	666.36
Yemen	2465.712
Zambia	26035.5
Zimbabwe	3765.105
Unknown	(null)

Cube: Sale OLAP Full

Metadata Functions

Search Model

Measure Group: <All>

Sale OLAP Full

- Measures
  - Orders
    - Discount
    - Orders Count
    - Profit
    - Quantity
    - Sales
    - Shipping Cost
- KPIs
- Dim\_Customer
  - Customer ID
- Dim\_Location
  - City
  - Country
  - Location ID
  - Region
  - State
- Members
  - State
- Dim\_Orders
- Dim\_Product
- Dim\_Time
  - Order Day
  - Order Month
  - Order Year
- Members
  - Order Year
- Time ID

```
//2a. Total Sales of Vietnam
SELECT [Measures].[Sales] ON COLUMNS,
       [Dim_Location].[Country].[Country].[Vietnam] ON ROWS
FROM [Sale OLAP Full];
```

174 %

Messages Results

	Sales
Vietnam	65210.0658

Cube: Sale OLAP Full

Metadata Functions

Search Model

Measure Group: <All>

Sale OLAP Full

- Measures
  - Orders
    - Discount
    - Orders Count
    - Profit
    - Quantity
    - Sales
    - Shipping Cost
- KPIs
- Dim\_Customer
  - Customer ID
- Dim\_Location
  - City
  - Country
  - Location ID
  - Region
  - State
- Members
  - State
- Dim\_Orders
- Dim\_Product
- Dim\_Time
  - Order Day
  - Order Month
  - Order Year
- Members
  - Order Year
- Time ID

```
//2b. Total Sales of Vietnam
SELECT [Measures].[Sales] ON COLUMNS
FROM [Sale OLAP Full]
WHERE [Dim_Location].[Country].[Country].[Vietnam];
```

174 %

Messages Results

Sales
65210.0658

### 3. Total Sales by Year

Cube: Sale OLAP Full

Metadata Functions

Search Model

Measure Group: <All>

Sale OLAP Full

- Measures
  - Orders
    - Discount
    - Orders Count
    - Profit
    - Quantity
    - Sales
    - Shipping Cost
- KPIs
- Dim\_Customer
  - Customer ID
- Dim\_Location
  - City
  - Country
  - Location ID
  - Region
  - State
- Dim\_Orders
- Dim\_Product
- Dim\_Time
  - Order Day
  - Order Month
  - Order Year
- Members
  - Order Year
- Time ID

```
//3. Total Sales by Year
SELECT [Measures].[Sales] ON COLUMNS,
       [Dim_Time].[Order Year].[Order Year] ON ROWS
FROM [Sale OLAP Full];
```

174 %

Messages Results

	Sales
2014	2259450.89553999
2015	2677438.69439997
2016	3405746.44937998
2017	4299865.87055999
Unknown	(null)

#### 4. Total Sales by Year (skip null value)

Cube: Sale OLAP Full

Metadata Functions

Search Model

Measure Group: <All>

Sale OLAP Full

- Measures
  - Orders
    - Discount
    - Orders Count
    - Profit
    - Quantity
    - Sales
    - Shipping Cost
- KPIs
- Dim\_Customer
  - Customer ID
- Dim\_Location
  - City
  - Country
  - Location ID
  - Region
  - State
- Dim\_Orders
- Dim\_Product
- Dim\_Time
  - Order Day
  - Order Month
  - Order Year
- Members
  - Order Year
- Time ID

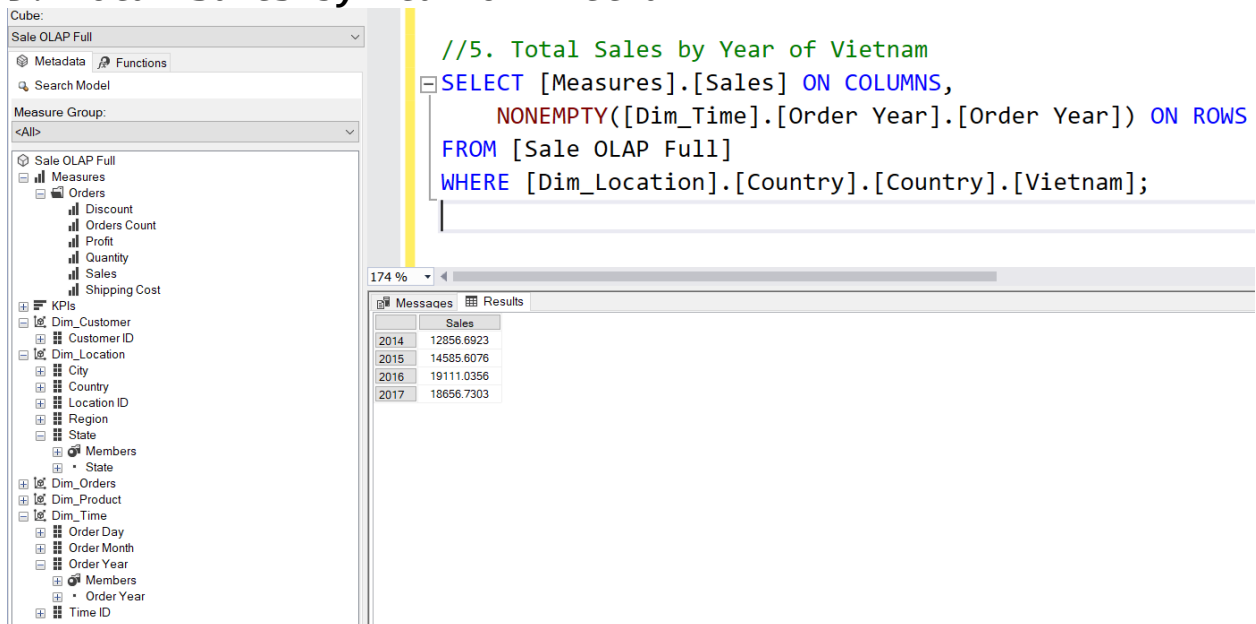
```
//4. Total Sales by Year (skip null value)
SELECT [Measures].[Sales] ON COLUMNS,
       NONEMPTY([Dim_Time].[Order Year].[Order Year]) ON ROWS
FROM [Sale OLAP Full];
```

174 %

Messages Results

	Sales
2014	2259450.89553999
2015	2677438.69439997
2016	3405746.44937998
2017	4299865.87055999

## 5. Total Sales by Year of Vietnam



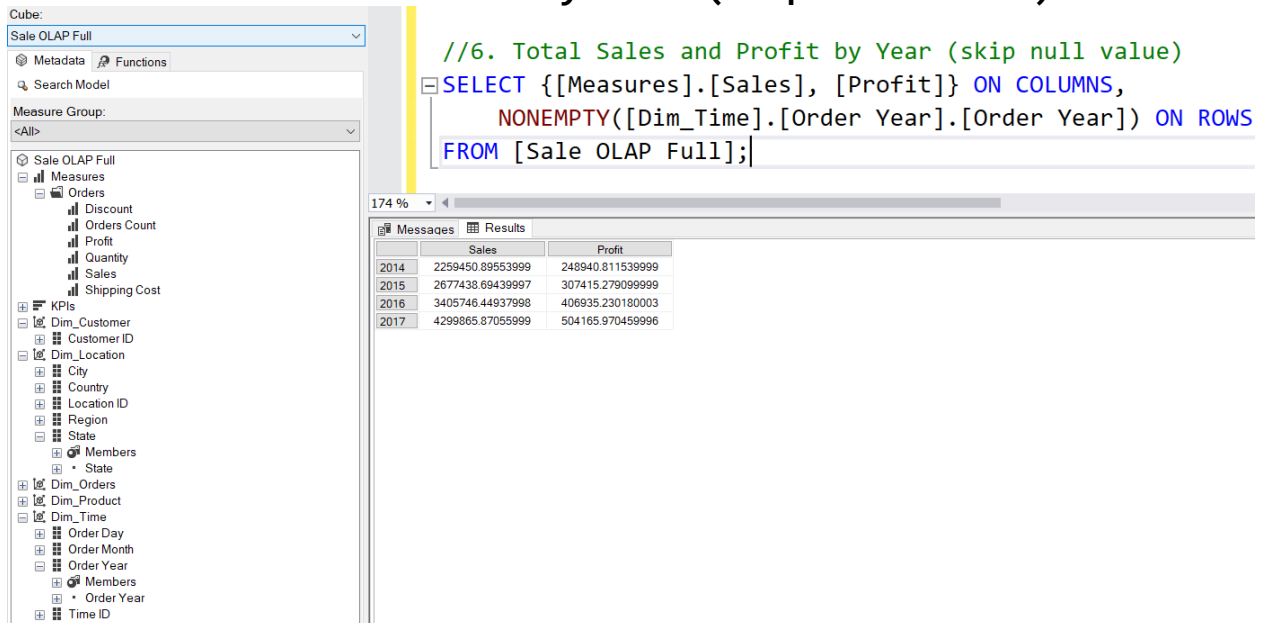
The screenshot shows the SQL Server Data Tools interface. On the left, the 'Cube: Sale OLAP Full' is expanded, showing the 'Measures' folder with 'Sales' selected. The 'Dimensions' folder is also expanded, showing 'Dim\_Time' with 'Order Year' selected. The 'Results' pane on the right displays the following query:

```
//5. Total Sales by Year of Vietnam
SELECT [Measures].[Sales] ON COLUMNS,
       NONEMPTY([Dim_Time].[Order Year].[Order Year]) ON ROWS
FROM [Sale OLAP Full]
WHERE [Dim_Location].[Country].[Country].[Vietnam];
```

The 'Results' pane shows the following data:

Order Year	Sales
2014	12856.6923
2015	14585.6076
2016	19111.0356
2017	18656.7303

## 6. Total Sales and Profit by Year (skip null value)



The screenshot shows the SQL Server Data Tools interface. On the left, the 'Cube: Sale OLAP Full' is expanded, showing the 'Measures' folder with 'Sales' and 'Profit' selected. The 'Dimensions' folder is also expanded, showing 'Dim\_Time' with 'Order Year' selected. The 'Results' pane on the right displays the following query:

```
//6. Total Sales and Profit by Year (skip null value)
SELECT {[Measures].[Sales], [Profit]} ON COLUMNS,
       NONEMPTY([Dim_Time].[Order Year].[Order Year]) ON ROWS
FROM [Sale OLAP Full];
```

The 'Results' pane shows the following data:

Order Year	Sales	Profit
2014	2259450.89553999	248940.811539999
2015	2677438.69439997	307415.279099999
2016	3405746.44937998	406935.230180003
2017	4299865.87055999	504165.970459996

## 7. Total Sale by Year and Sub-Category

Cube:

Sale OLAP Full

Metadata Functions

Search Model

Measure Group:

<All>

Measures

- Orders
  - Discount
  - Orders Count
  - Profit
  - Quantity
  - Sales
  - Shipping Cost
- KPIs
- Dim\_Customer
  - Customer ID
- Dim\_Location
  - City
  - Country
  - Location ID
  - Region
  - State
  - Members
    - State
- Dim\_Orders
- Dim\_Product
  - Product ID
  - Product Name
  - Sub Category
  - Members
    - Sub Category
    - Sub Category 1
- Dim\_Time
  - Order Day
  - Order Month
  - Order Year
  - Members
    - Order Year
  - Time ID

### //7. Total Sale by Year and Sub-Category

```
SELECT NONEMPTY([Dim_Product].[Sub Category].[Sub Category]) ON ROWS,
       NONEMPTY([Dim_Time].[Order Year].[Order Year]) ON COLUMNS
FROM [Sale OLAP Full]
WHERE [Measures].[Sales];
```

174 %

Messages	Results
	2014201520162017
Accessories	113456.0076172397.685209895.1623253488.1636
Appliances	173290.2224222882.2749254793.3595359569.6682
Art	64062.764199999982312.869297976.0571127261.4634
Binders	86993.274393400.9958121064.5633160410.5603
Bookcases	259396.2858317953.4498376025.7999513196.7063
Chairs	285730.9761000001295058.1396427514.3732493378.2753000001
Copiers	216367.89214327168.5968415514.88888550384.8937599999
Envelopes	27292.936537665.607550501.763353757.1823
Fasteners	15010.046620841.467922890.336930753.1945
Furnishings	63825.4603999999981723.74390000001111725.3732127881.3904
Labels	13571.373615518.270818372.119525888.5121
Machines	160545.6814159858.9511198376.1987260279.2359
Paper	42373.882150782.011370056.902878574.73120000001
Phones	337282.4802364016.2744453519.0045552006.3801
Storage	205554.2262228518.2972309342.5994383397.8466000001
Supplies	47565.892343253.560465814.412186177.26779999998
Tables	147131.4937164086.4968202363.5351243460.3988