Data Driven Innovation In Supply Chain Management with Qlik Insights

Define Problem/Problem Understanding

Specify The Business Problem

This Project which is named as Data Driven Innovation In supply Management which aims for revolutioning the Supply chain management throught the Data Driven,using qlik insights.
It needs to improve operational efficency and responsing the data which is used for creating an useful innovation data.
this converted projects used to reshape the Supply Chain Data using the power of qlik insights Data.
By using cutting edge Analytics also the data can be using to key facets such as forecasting, and inventorymanagement, with the goal of elevating Operational efficency.

Buisness Requirements

By Implementing strong data integration technique to add and keeping the data relevant data from supply chain resources.
By using Qliks advanced Visualizations Techniques to create interactive Dashboards.
Qliks advanced technologies to analyze logistics data,identify patterns,and to improve transportation routes.
Implementing real time projects tracking the data and also monitor the data to improve the movement of solution In an optimzed way.
By using this it can reduce leading time and minimizing transportations costs to satisfy Business problem.
By using real time implementation used to making quick decisions to maintain yhe data in responsive.
It also maintains Proactive data,that means the data errors can be solved in before only.
that is the problem intelligence is not going to do but it can be solved by qliks intelligence only.

Literature Survey

Literature Survey on this project is to manage supply chain data through data driven innovations and advanced analytics is to be used.

this advanced analytics is used to reveal growing data it should be measured.

It is used to identifying of the important role that advanced analytics plays in transforming the data to logistics,in an traditional supply chain process.

Researching the improvement of advance analytics tools,such as qlik,to improve decision making with efficient data.

the finded data can be successfully implemented and is useful to do the data with differnt problems that can be solved.

These problems can be solved by using differnt approaches by using advance qlik.

Social Or Business impact

Social impact Analysis

- Explain in detail about any contraversion between implementing the data and using the data.

- Analyze that how the data to be driven in Supply Chain Management have influence Social Welfare.

Business impact analysis

- Analyze that how data driven innovation in supply chain management have effected business especially in e-commerce websites and telecommunication

- Evaluate the data driven innovation in Supply chain management on sales and optimizing solutions.

Data Collection and Extraction from Database

Downloading the Dataset

The Dataset that can be downloaded from qlik sense by using the link provided by qlik platform.

Understand the data

The data that can be downloaded can contains 53 colunms.
with each field there is a unique type of data that may be a general type Or type is Date.

- Type
- Days For Shipping(real)
- Days For Shipping(delivery)
- Benefit per Item
- Sales Per Customer
- Delivery
- Late Delivery_Risk
- Category id
- Category
- Customer City
- Customer Country
- Customer Email
- Customer Fname
- Customer Lname
- Customer Id
- Customer Segment
- Customer State
- customer Street
- Customer ZipCode
- Market
- Order City
- Order Country
- Order Customer id
- Order Date(Date Orders)
- Order Item Product price

- Order Item Profit Ratio
- Order Item Quantity
- Order Item Total
- Sales
- Order Region
- Order State
- Order Status
- Order Zipcode
- Product Card Id
- Product Category id
- Product
- Product Image
- Product Price
- Profit per Item

The above mentioned are Names Of Fields .each Field is contain an unique identification.

It Should be mandatory that if you want to do any responsive visualization,you must understand the data .

If you know the all details of such data only ,you can manage the doing visualizations of data.

Prepare The Data For Visualizations

If you want to prepare the data ,you must clean the data is first thing to do in a DataManager.
Cleaning the data in the sense you should remove unneccessary data like null values,which has no meaning for that in an qlik sense.
You have to add new columns also with existing columns names,so,if you want to do this you must thoroughly understand the data.
Now in this real time project ,i preprocessed the data with new columns like revenue, it is a statistical formula for the sales and multiplied by quantity,So, you can get this new field.
And also another column is that profit year ,that is in which year the more profits are to be occured so,it is has to be calculated in preprocessed data.
Last column is that that the Sale which is an profitable or not based on the sales. so,you need to preprocess the data based upon the conditions in that field are to be determined our new fields. this ia an essential feature of preparing the data for visualizations.
Last thing is that how much efficently you can prepared the data,that much of most interactive and responsive visualizations should be constructed.

Data Visualization

Data visualization is the process of creating graphical representations.This visualization can be applied to the given data to easily Understand by the People.The data if it is in the form of any graphical presentation, any not experianced people with Data Analytics are also able to Understand.

By using this visualizations we can convert complex data into simple terms Of meaning that people can be understand that what the Visualization is going to tell about what types of field and what type of data it can be used to understand the data.

Number Of Unique Visualizations

The Number Of Unique Visualizations That can be created by using given dataset.In that some of them are used to analyze performance and efficency with including Bar charts ,Line Charts,Pie Charts,Kmaps,Histograms etc.
These Visualizations are used to compare performance between all the profitable markets ,so by using this we can easily understand by the seeing of visualizations only,that what it is telling about data.It also show the relationship between revenue and customer.resource allocation and deallocation tha can be occured by using these Visualizations.
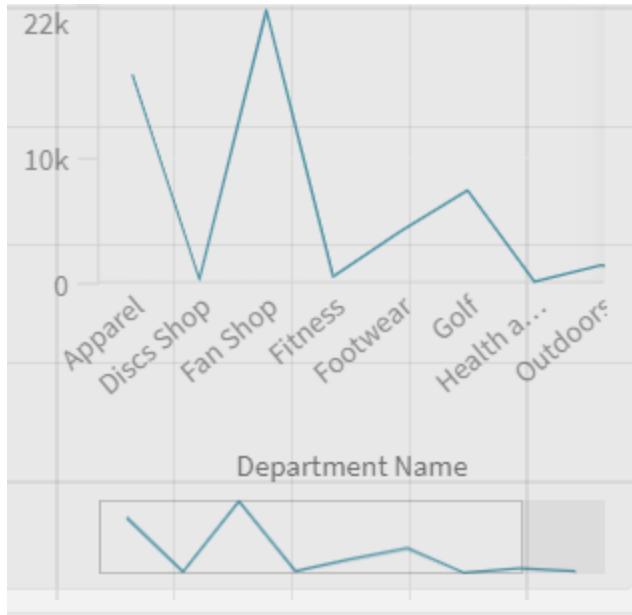
Visualizations
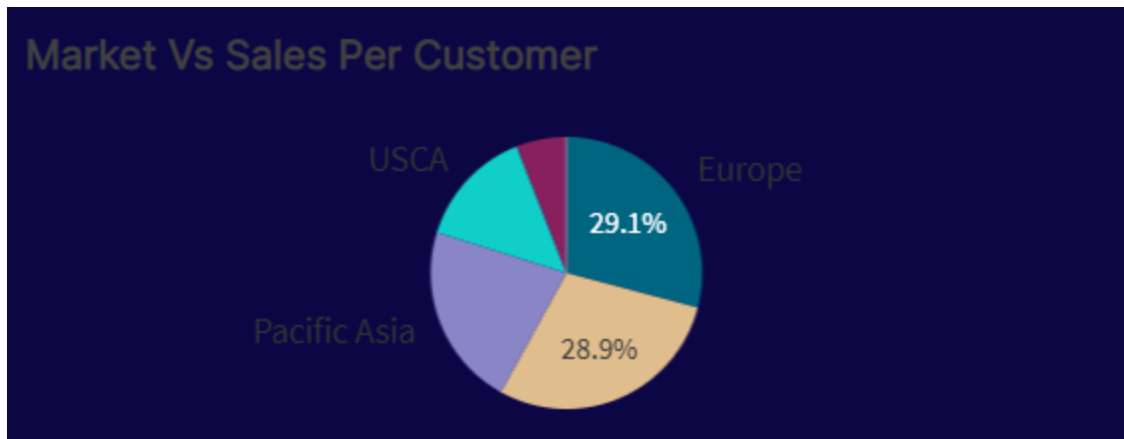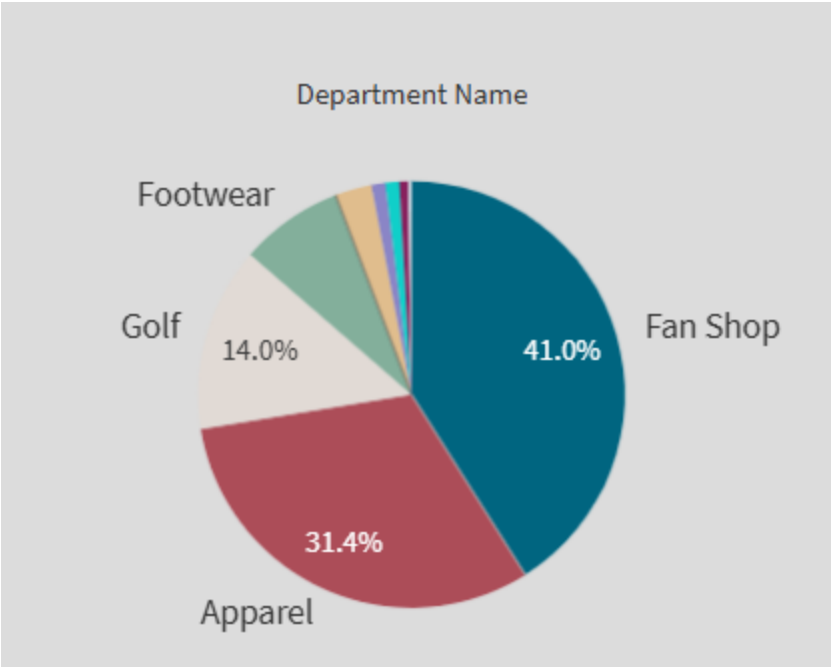
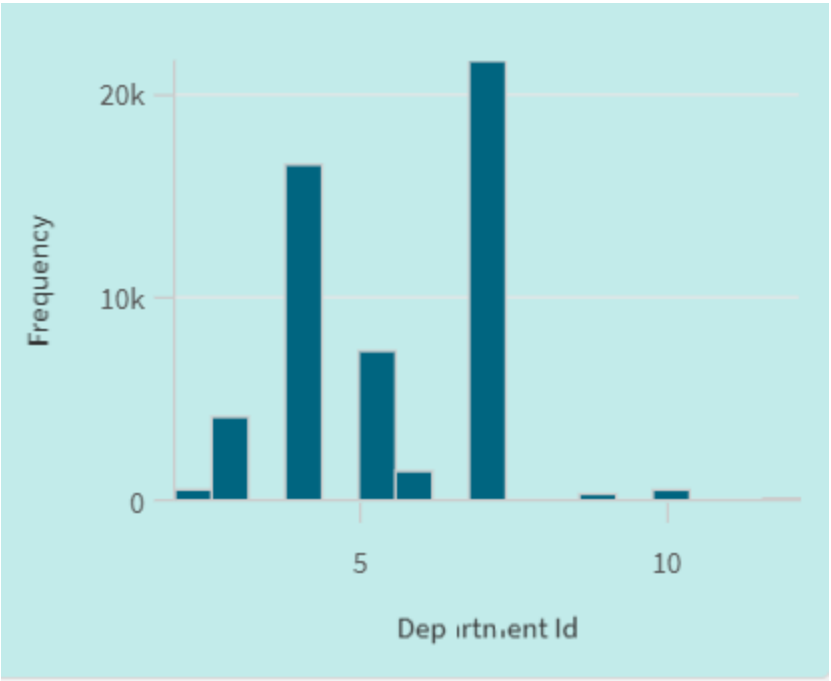## Frequency Of Sales Per Customer
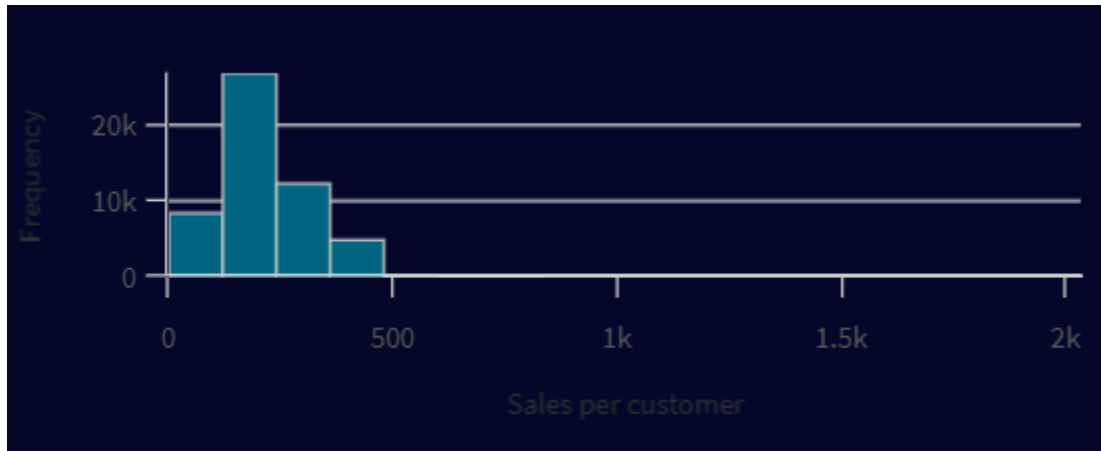
Customer Id Vs Sales Per Customer

Highest Sales of Department

Market Vs Sales Per Customer
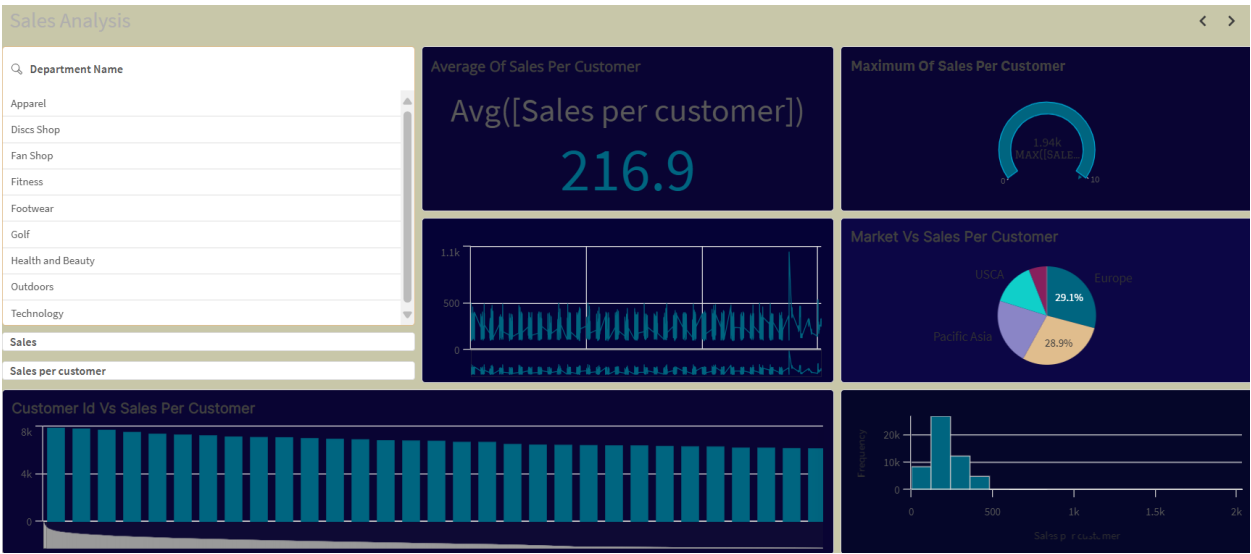
USCA

Europe

29.1%

Pacific Asia
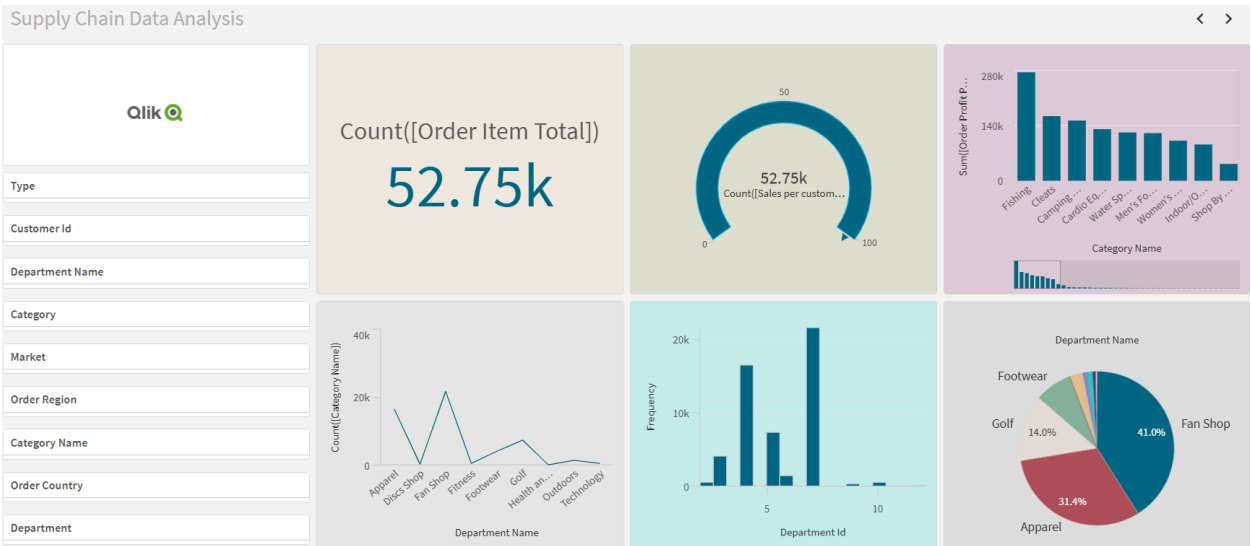
28.9%

Department Sales (In Percentage)

Frequency Of Department Id

Dashboard:1

Dashboard:2

Design Of Story

A story is nothing but a report,report in the sense what you had to created responsive dashboards you need to narrate it.By using this the readers or viewers can get clarity and confirmation about your dashboards with this story.
But you should ensure that the report effectively communicates insights from the data.
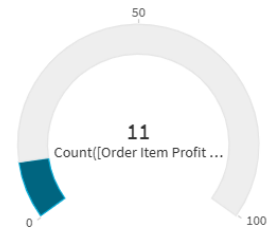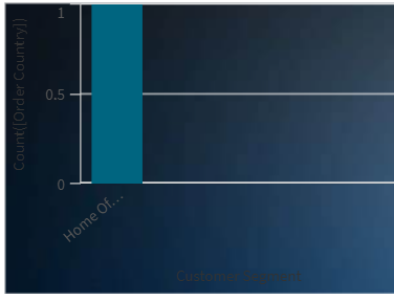
Qlik Q
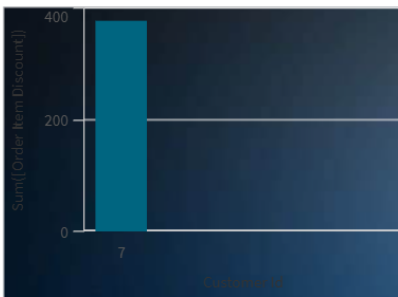
Order Country

Australia
0.36

Australia has 36% Order Percentage with Customer Segment Home Office.

Australia has the Average Order Profit Per Order is 32.74 with respect to currency in Australia.

Avg([Order Profit Per Order])

32.74

Australia has mostly Customer Segment is Home Offices.

Order Item profit ratio count is 1 in Australia.

1
Count([Order Ite...

0   100

Australia Data-Click Here
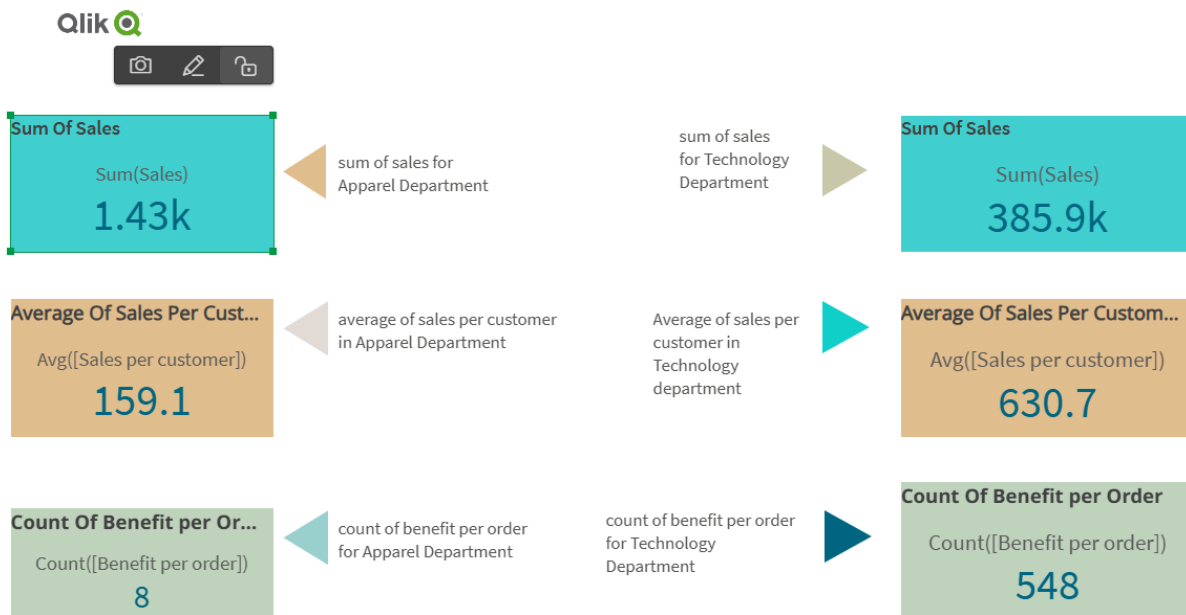

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Supply Chain Data Analysis Story

As per Customer Id, how much Sales are described by the bar graphs.

For Sample data taken as customer id is 83 and sum of Sales for that customer id customer is around 120

But that the customer id which contains 348 is having low sum of sales as compared to remaining customers sales.

Canada Data-Click Here

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Sum Of Sales

Sum(Sales)

1.43k

sum of sales for
Apparel Department

sum of sales
for Technology
Department

Sum Of Sales

Sum(Sales)

385.9k

Average Of Sales Per Cust...

Avg([Sales per customer])

159.1

average of sales per customer
in Apparel Department

Average of sales per
customer in
Technology
department

Average Of Sales Per Custom...

Avg([Sales per customer])

630.7

Count Of Benefit per Or...

Count([Benefit per order])

8

count of benefit per order
for Apparel Department

count of benefit per order
for Technology
Department

Count Of Benefit per Order

Count([Benefit per order])

548

Performance Testing

Amount Of Data Loaded

Amount of data loaded is means that the how much volume of data it can be loaded to perform all operations on that data.

🔍 *Search*

Filter by table

All tables ▼

Benefit per order	⠿
Category	⠿
Category Id	⠿
Category Name	⠿
Customer City	⠿
Customer Country	⠿
Customer Email	⠿
Customer Fname	⠿
Customer Id	⠿
Customer Lname	⠿

Customer Password	⠿
Customer Segment	⠿
Customer State	⠿
Customer Street	⠿
Customer Zipcode	⠿
📅 Date	► ⠿
Days for shipment (...	⠿
Days for shipping (r...	⠿
Delivery Status	⠿
Department	⠿

Utilization Of Data Filters

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Type

Customer Id

Department Name   ⓘ ↗ •••

Department Name
Category

Market

Order Region

Category Name

Order Country

Department

Number Of Visualizations

- Count(order Item total)
- Category Namne Vs Order Profit Per Order
- Freuency Of Department Id
- Customer Id Vs Sales Per Customer
- Market Vs Sales Per Customer
- Frequency Of Sales per Customer
- Average Of Sales per Customer
- Maximum Of Sales per Customer
- Count Of Sales Per Customer
- Count Of Category Vs Department
- Department Sales
- Order Date Vs Sales Per Customer