Data-Driven Innovations In Supply Chain Management With Qlik Insights

1. INTRODUCTION

1.1 Overview:

This focuses on data driven innovations from the INSIGHTS Qlik to improve supply-chain management. Their focus is on enhancing the transparency, productivity and accuracy of supply chain management which translates into superior operational performance and competitiveness.

1.2 Purpose:

The project will involve the embedding of Qlik Insights in a number of key supply chain activities from demand forecasting, inventory management and logistics optimisation to supplier performance measurement and sustainability practices.

1.3 Technical Architecture:

- Data Source
- Data Integration Layer
- Data Storage and Management
- Analytics and Processing Layer
- Visualization and Reporting
- User Access and Security
- Collaboration and Integration

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2. Define Problem / Problem Understanding

2.1 Specify The Business Problem:

Qlik aims to disrupt supply chain management with this project, leveraging data-driven insights. It helps improve operational efficiency and responsiveness by optimizing logistics, forecasting, and inventory management through advanced analytics. The staff working with the supply chain management system was significantly helped by this kind of convert project to alter the whole landscape that existed, and it has been possible only through Qlik's superior data-driven insights. With state of art analytics in place, it is striving to make transportation, forecasting and inventory management counter the tide setting new benchmarks with operational efficiency and response.

2.2 Business Requirements:

There are several key steps in implementing a complete data integration strategy for the Qlik-managed supply chain. Start by identifying and collecting data from different sources (inventory systems, warehouse management systems, transportation management system). Leverage Qlik data connectors to ease in data extraction and transformation State of Data Extract-Transform-Load process ensures conistentity and quality of the data Processbegins with extracting transactional details from companies SAP System after end-of-period, nextanntgTPSAccounting system filesdata are exported transformed before they visit BI SW procress discriminator The extract-transform-load ETL process starts after the end-of-period when transaction details found in the company's SAPSystem or in ancillary TransactionProcessing System reports has been extracted. Store the cleaned data in one place: a data warehouse or data lake. Then we build the dashboards which will help you in taking decisions using Qlik Sense doc. Dashboards cater to stakeholders in these societies.

2.3 Literature Survey:

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A review of literature on the topic data-driven insights for supply chain management reformation, and getting analytics better are proliferating research articles explicitly belong to tis endevour. Those including changing the face of traditional supply chain operation for data analytics as simplest-of-these will indeed help more from pivotal to ever-growing solutions. Qlik it will improve the visibility and control of supply chain systems, prove to be a worthwhile addition for logistics optimization, forecasting accuracy for inventory management excellence. Social Or Business Impact

3. Data Collection

3.1 Collect the dataset:

Data collection means it's a process of data gathering and measuring the information, Extaction the data to enables one to answer stated research questions, test hypotheses to generate insights from the data.

Downloading The Dataset
https://www.kaggle.com/datasets/shashwatwork/dataco-smart-supply-chain-for-big-data-analysis/data

3.2 Connect Data with Qlik Sense:

To connect Data to Qlik Sense, follow these link:
https://drive.google.com/file/d/16e09wSiO6FMWnFATPn2mxxCygl0AmE9Z/view

4. Data Preparation

4.1 Prepare The Data For Visualization:

For Preparing the Visualizations, follow these link:
https://drive.google.com/file/d/1Qasv6EWheYXu4KDdzwSnGVwxZnjMhxlb/view

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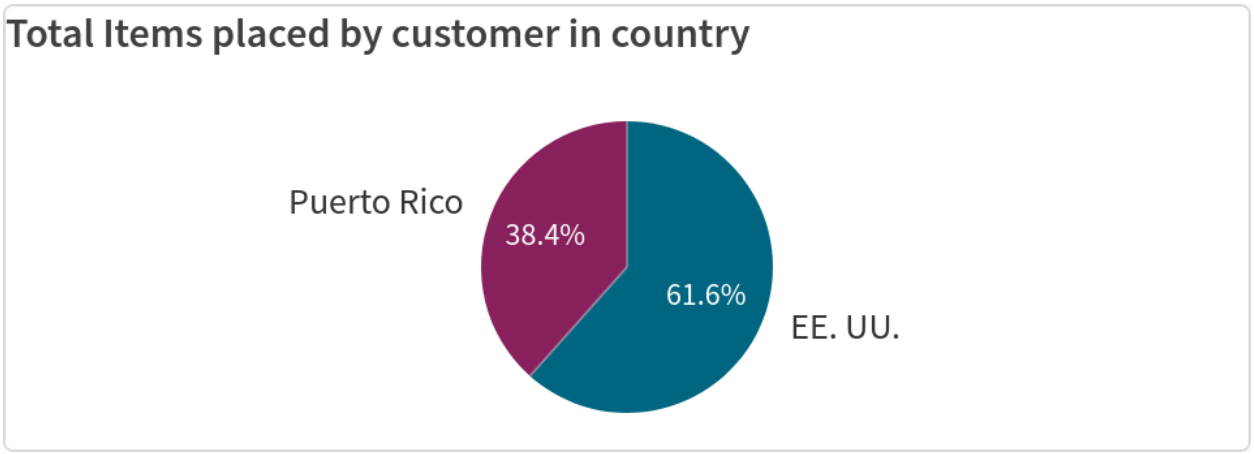
5. Data Visualizations

5.1 Visualizations:



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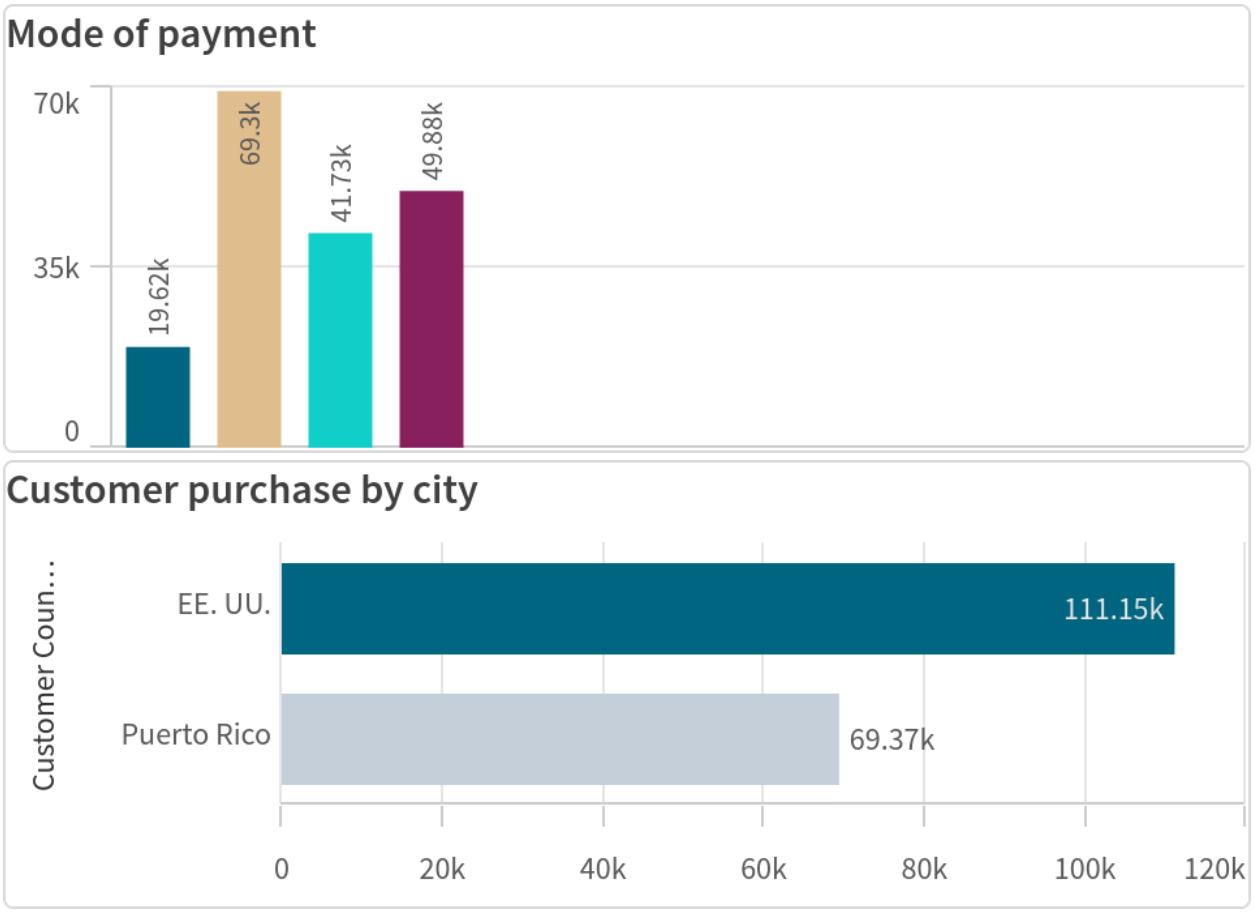

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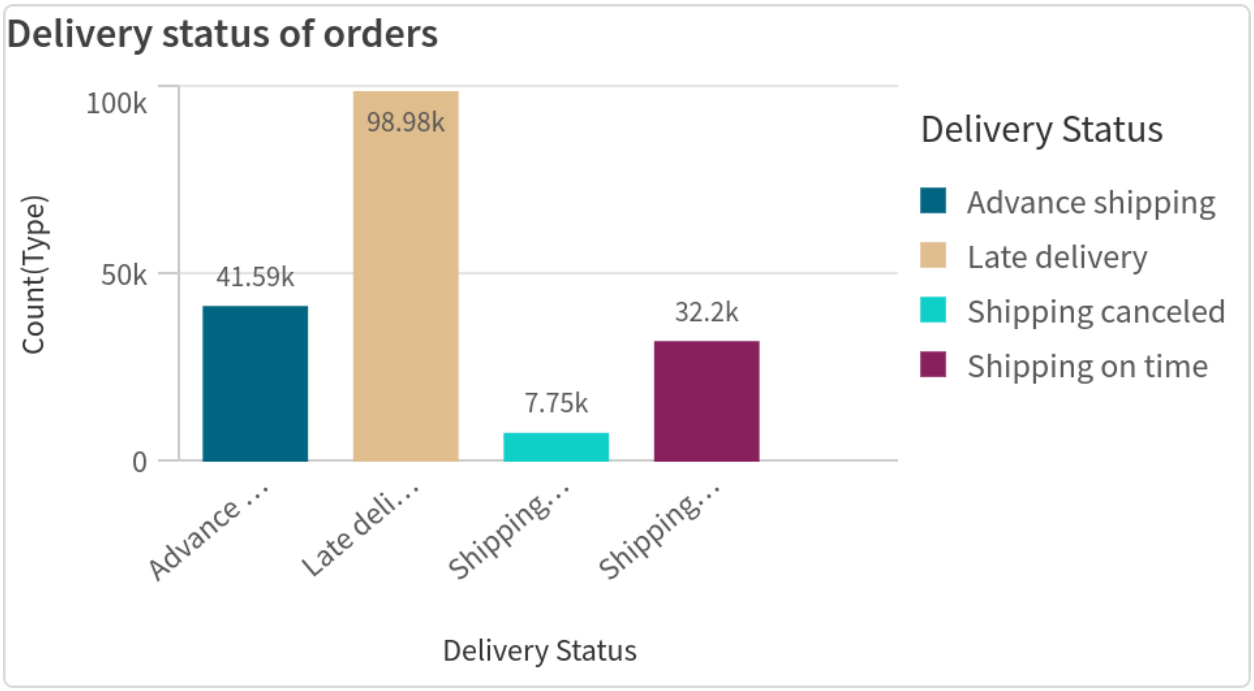

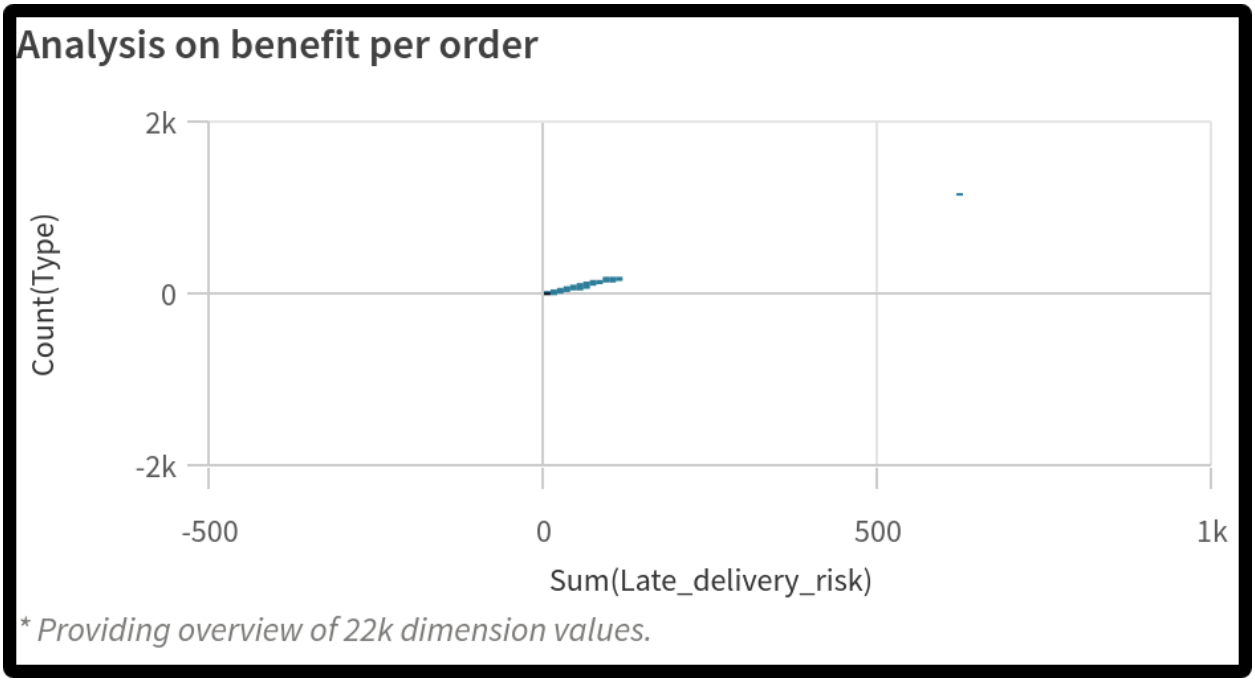

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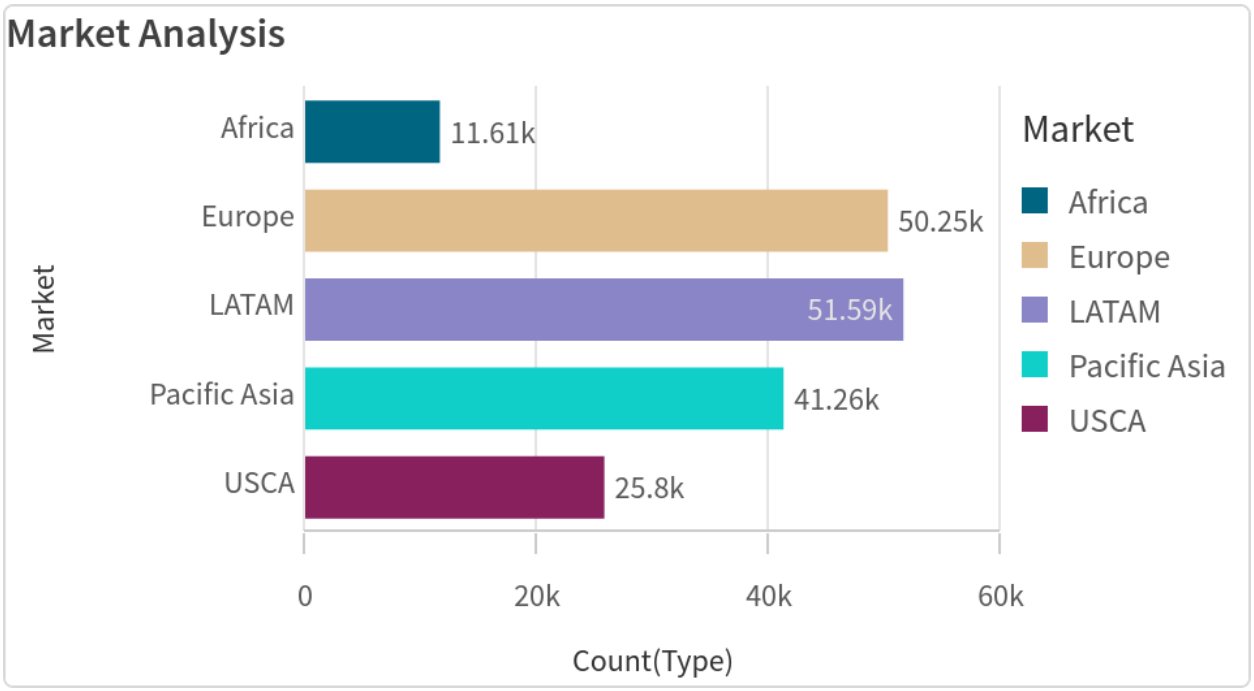

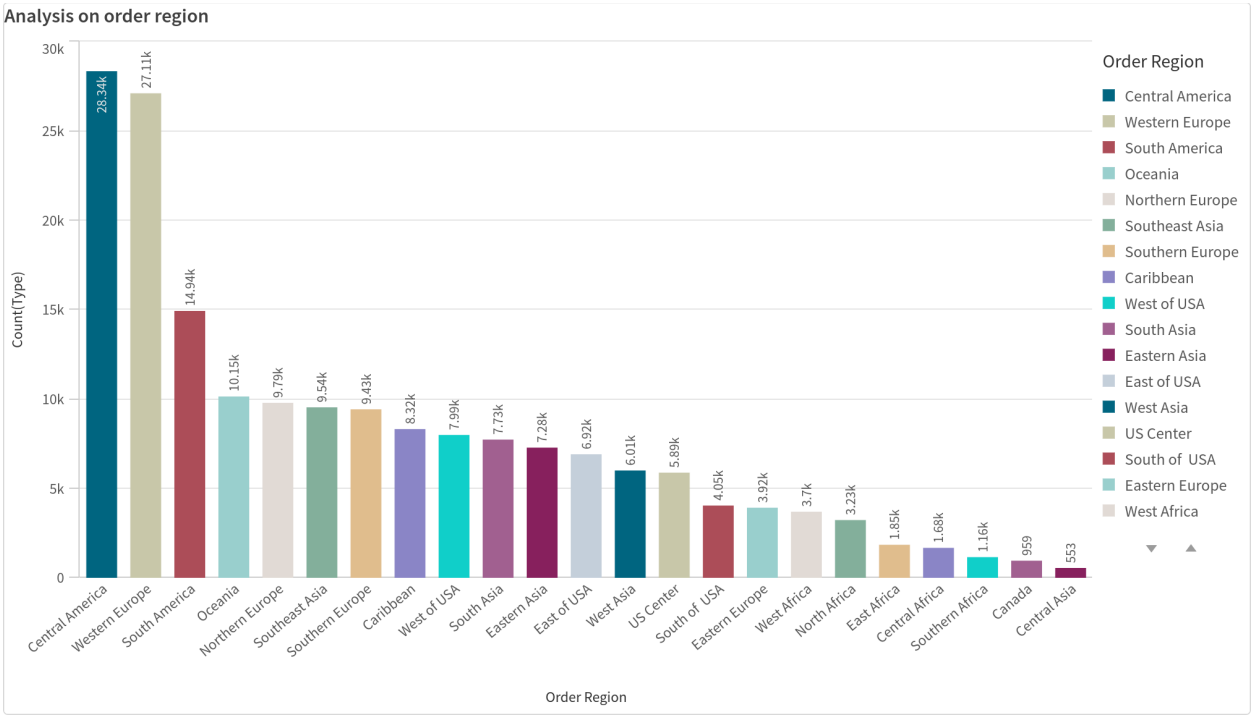

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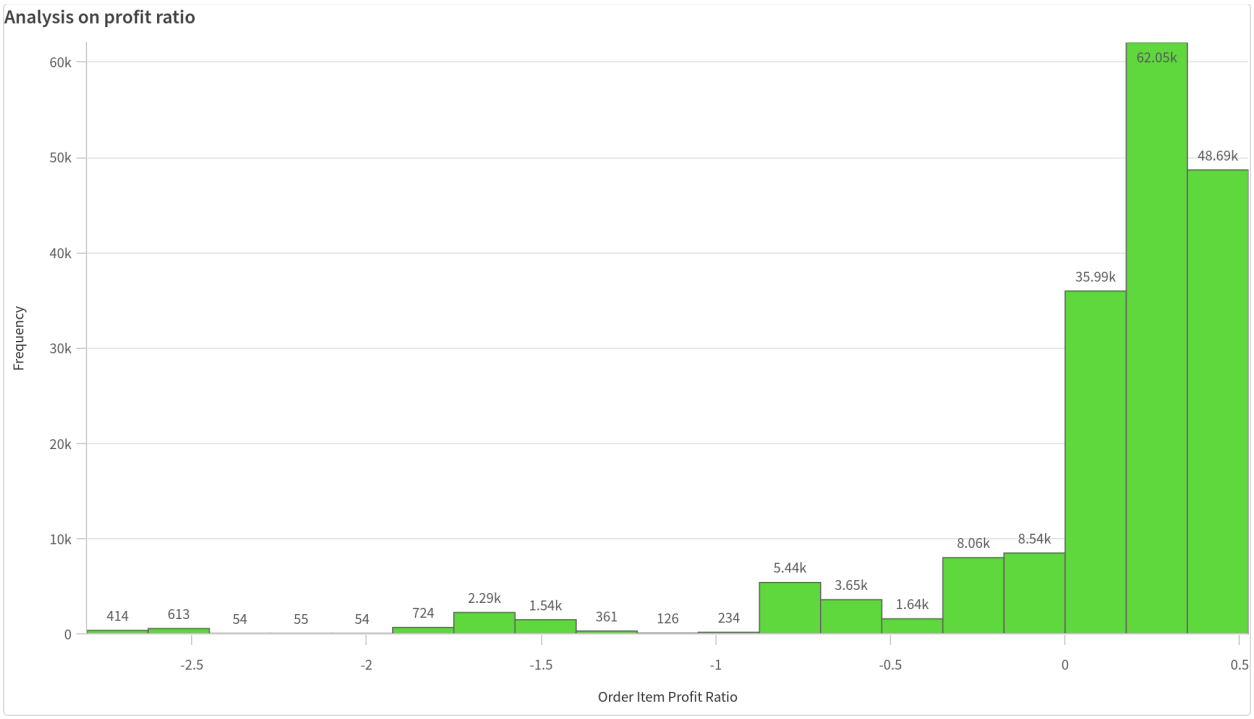

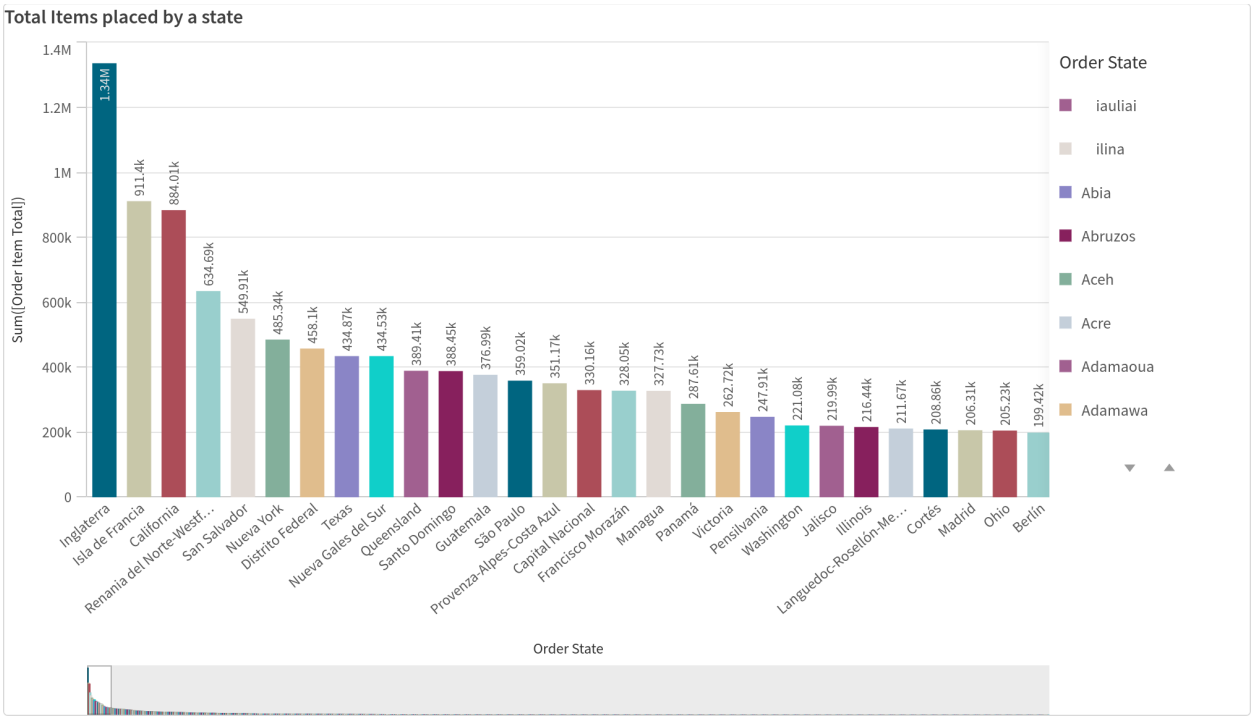

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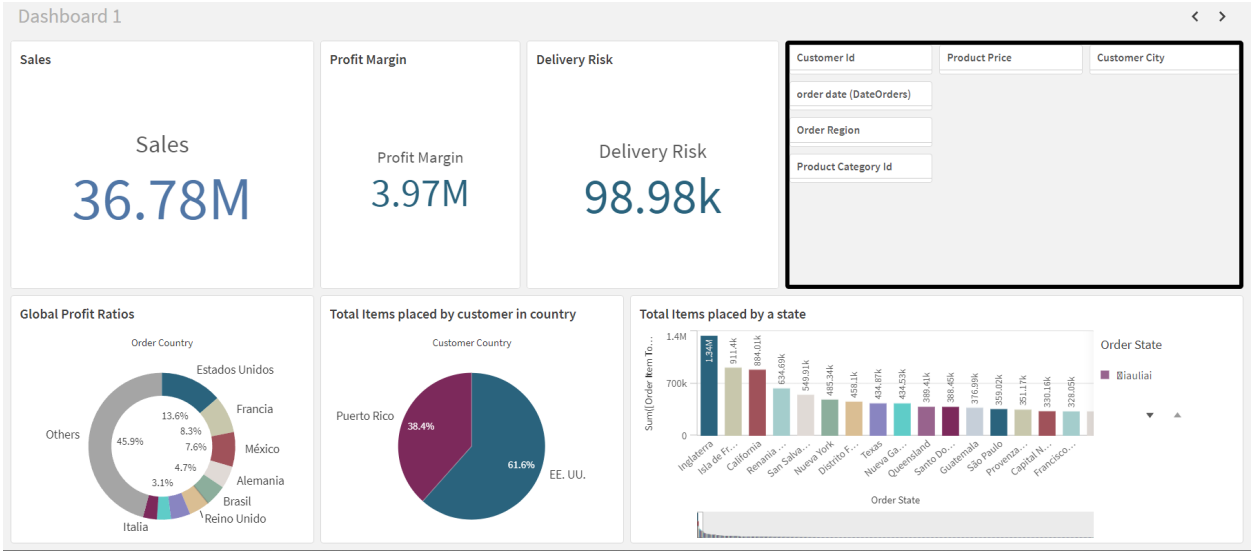
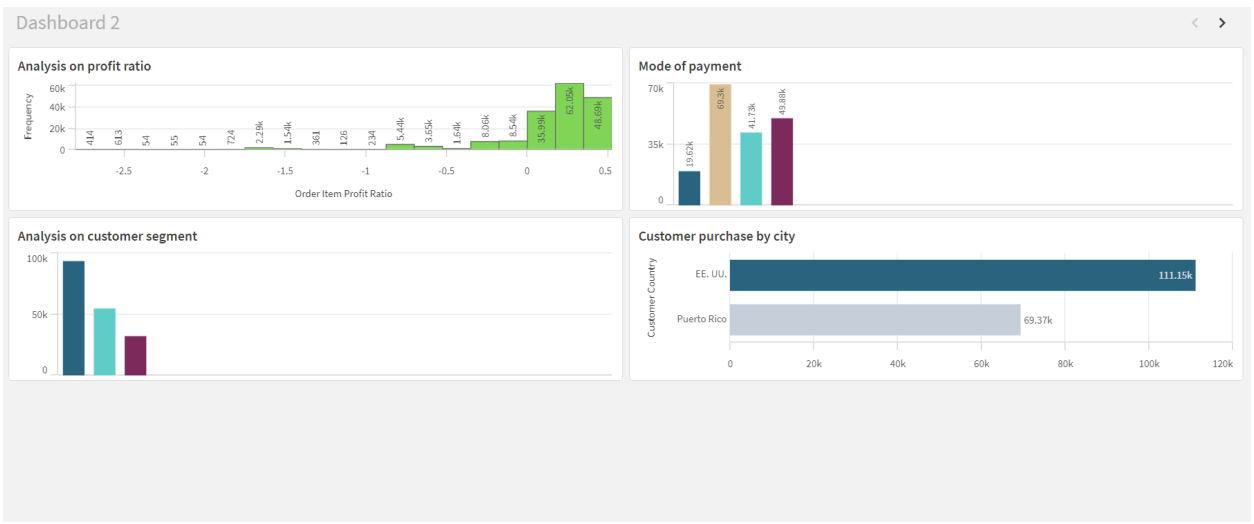
6. Dashboard

6.1 Responsive and Design og Dashboard:





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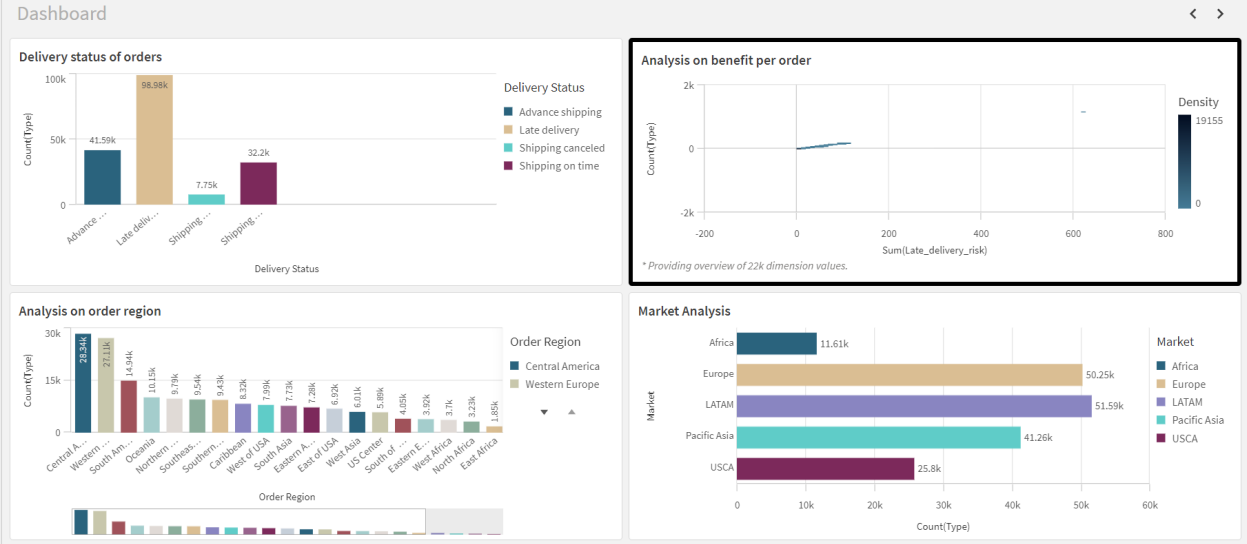
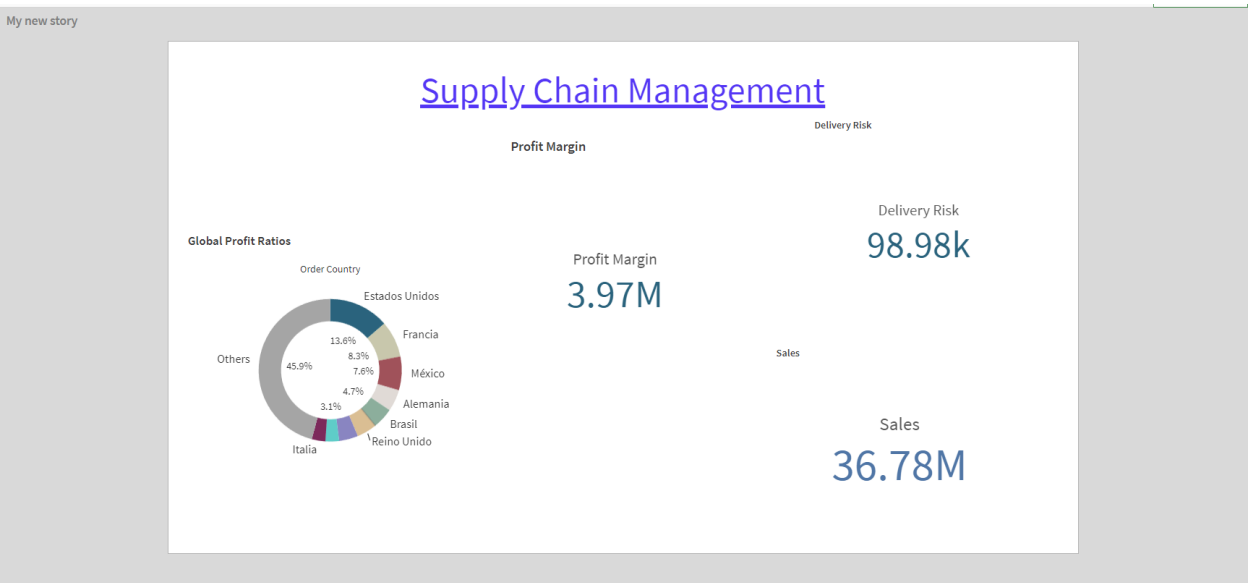


Design of Story:



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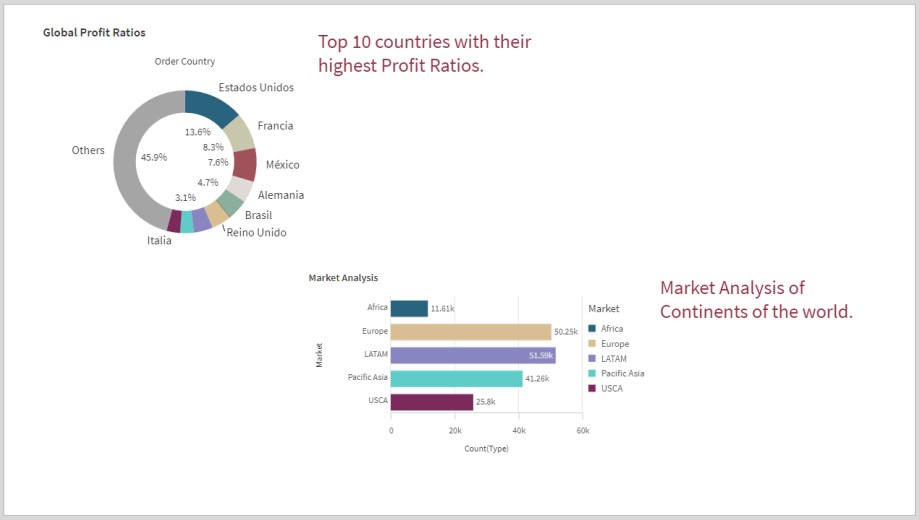
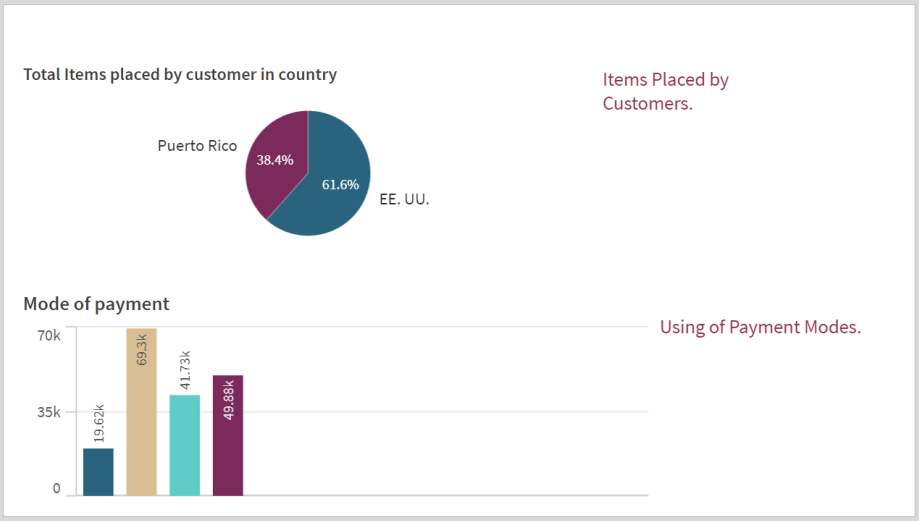
My new story



My new story



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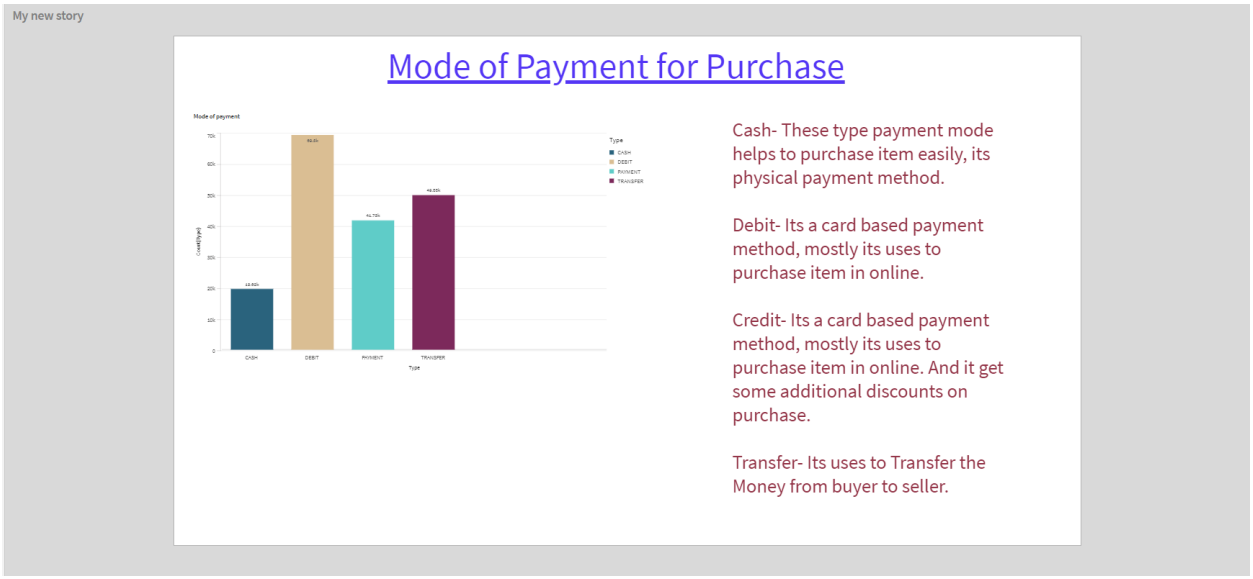

7. Report

7.1 Report Creation:

1.Data Preparation
- data integration
- data modeling

2.Designing the Report
- choosing the right metrics
- report layout and visualization
- visualization best practices

3.Report Creation in Qlik Sense/Qlik View
- building the report
- advanced features

4.Testing and Validation
5.Distribution and Sharing
6.Continuous Improvement

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8. Performance Testing

8.1 Amount of Data Rendered:

The Amount of data rendered in a report using Qlik insights are very depending on several factors, the complexity of the data models, volume of data, no.of visualizations, and interactivity required.

1. Volume if Data
2. Data Models
3. Visualizations
4. Interactivity

8.2 Utilization of Data Filters:

When using Qlik Insights, it is important to get the most out of your data filters both to control the amount of data rendered and more optimally drive user interactions. Filters enable you to visually analyze and organize different parts of the supply chain so that you can focus solely on data which is pertinent to a relevant subset. The definitive guide to the use of data filters in Qlik Insights Using these data filters in Qlik Insights helps the user interact and analyze data, making insights more accurate and actional. With the ability to finely tune filters, you can tailor these capabilities and create a native-like experience for Qlik applications whilst also maintaining control over performance and scalability.

No Of Visualizations/ Graphs

- Global Profit Ratios
- Total Items placed by customer in country
- Total Items placed by a state
- Analysis on customer segment
- Mode of payment
- Customer purchase by city
- Delivery status of orders
- Analysis on benefit per order
- Analysis on profit ratio
- Market Analysis
- Analysis on order region

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9. Conclusion

The Qlik Insights for supply chain success is a testament to data-driven innovation at work, delivering unprecedented levels of operational efficiency, visibility, and decision-making. Qlik Insights seamlessly and securely integrates multiple datasets using sophisticated analytical techniques to provide end users with a 360 degree view of current insights for improved decision-making, process optimization, and overall business productivity.