

Business Insight 360 - Power BI

**A Dissertation Report
Submitted in Partial Fulfillment of the
Requirements for the Award of Degree of**

**BCA
IN
Cloud & Cyber Security
TO
IIMT UNIVERSITY, MEERUT**



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December, 2023**

DECLARATION BY THE CANDIDATE

We hereby certify that the work presented in this project report entitled "**Business Insight 360 - Power Bi**" in partial fulfillment of the requirements for the award of the degree of **BCA (Cloud & Cyber Security)**, submitted to the **School of Computer Science & Applications, IIMT University**, is an authentic record of our own work carried out during the period from September to December 2023 under the supervision of **Mr. Vikas**, Assistant professor, SOCSA.

The matter embodied in this project report, to the best of our knowledge, has not been submitted for the award of any other degree anywhere.

Meerut

Signature

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Designation

College/School

University

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Designation

College/School

University

Signature

ACKNOWLEDGEMENT

Presenting a project of this type is an arduous task, demanding a lot of time. We cannot in full measure appreciate and acknowledge the kindness shown and help extended by various persons, in this endeavor. We will remember all of them with gratitude.

We have always beholding to my God, for always being with us and showing us the right ways, our family, for always doing favors to us and our friends and colleagues consistently helped with encouragement and criticism throughout the project work, for always lifting our sights to higher vision, raising our personality beyond normal limitation and for realizing me and my strengths and potential.

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PLAGIARISM REPORT

ABSTRACT

The Business Insights 360 project undertaken by AtliQ Hardware represents a transformative journey towards harnessing data-driven insights for informed decision-making across diverse business domains. Leveraging the capabilities of Power BI, this initiative seamlessly integrated, transformed, and visualized data from multiple sources, including MySQL databases, Excel sheets, and CSV files. The project's execution encompassed crucial phases such as data integration, transformation, modeling, and the creation of interactive dashboards tailored to key business views—Finance, Sales, Marketing, Supply Chain, and an Executive Overview.

The intricate process of data integration involved unifying data from disparate sources, overcoming challenges related to inconsistencies and varied formats. Utilizing Power Query, the team ensured accuracy and consistency in the dataset, laying a robust foundation for insightful reporting. A sophisticated data model was established, facilitating drill-downs, cross-filtering, and interactive exploration, enabling users to derive meaningful insights from the visualized data.

The versatility of Power BI was fully harnessed to create dynamic dashboards for each business view. The Finance View provided comprehensive Profit and Loss statements, offering insights into customer, product, and country performance. The Sales View enabled in-depth customer analysis based on Net Sales and Gross Margin, steering strategic sales decisions. The Marketing View employed a profitability/growth matrix to optimize marketing strategies, while the Supply Chain View enhanced efficiency with insights into forecast accuracy, net error, and risk profiles. The Executive View consolidated insights from all dimensions, offering a top-level dashboard for executive decision-making.

The project utilized various tools, including MS Excel, MySQL, Power BI, DAX Studio, and advanced DAX formulas, showcasing a blend of technical expertise and business acumen. The implementation of a project charter, stakeholder mapping, and the analysis of P&L statements added structured and strategic elements to the execution.

TABLE OF CONTENTS

Chapter 1 - Introduction

Unveiling the essence of AtliQ Hardware's Business Insights 360 project, exploring the transformative journey into data-driven decision-making.

Chapter 2 - Tech Insights: Crafting Strategies with Data Tools

A deep dive into the technology landscape, showcasing the strategic use of tools like MS Excel, MySQL, DAX Studio, and advanced DAX formulas for crafting data-driven strategies.

Chapter 3 - Coding Section: Navigating the Data Landscape

A comprehensive exploration of the coding section, providing insights into navigating the intricacies of the data landscape in the Business Insights 360 project.

Chapter 4 - Visual Insights: The Project Journey

An in-depth journey through the visual insights crafted in the project, highlighting the dynamic and impactful dashboards for Finance, Sales, Marketing, Supply Chain, and Executive views.

Chapter 5 - Challenges, Solutions, and Project Impact

Unraveling the challenges faced, the innovative solutions implemented, and the tangible impact on business processes and decision-making, including a notable 15% sales increase.

Reference

A compilation of references acknowledging the guidance and resources that contributed to the success of the Business Insights 360 project.

LIST OF FIGURES

FIG NO.	FIGURE NAME	PAGE NO.
1	Data Model	21
2	Dashboard Homepage	23
3	Finance View	25
4	Sales View	27
5	Marketing View	29
6	Supply Chain View	31
7	Executive View	33
8	Info Page	35
9	Support Page	37

Chapter 1 - Introduction

Business Insights 360 - Crafting Strategic Excellence through Data

Business Insights 360 project represents a concerted effort to harness the power of data, connecting disparate sources, modeling insights, and culminating in a series of meticulously designed dashboards through Power Bi.

Connecting the Dots

At the core of the Business Insights 360 project is the seamless integration of data from MySQL, a robust relational database management system. This integration served as the cornerstone, unifying information from diverse sources into a cohesive and dynamic dataset.

The connectivity to MySQL not only ensured the reliability of data but also laid the groundwork for a comprehensive exploration of business dimensions.

Data Modeling Brilliance

Data modeling emerged as a pivotal phase in the project's execution. Leveraging the capabilities of DAX (Data Analysis Expressions) and Power Query, AtliQ Hardware sculpted a robust data model.

This model, like the architectural blueprint of a skyscraper, allowed for intricate detailing—enabling drill-downs, cross-filtering, and the creation of an interactive playground for data exploration.

Dashboard Symphony

The crowning achievement of the Business Insights 360 project is the creation of five distinct dashboards—Finance, Sales, Marketing, Supply Chain, and Executive Views.

Each dashboard, a visual symphony of charts, graphs, and key performance indicators, is a strategic window into the heart of AtliQ Hardware's operations.

- **Finance Dashboard:**

Dynamic Profit and Loss statements unfold, offering insights into customer, product, and country performance over user-selected time periods.

- **Sales Dashboard:**

Delving into customer performance analysis based on Net Sales and Gross Margin, it serves as the compass guiding strategic sales decisions.

- **Marketing Dashboard:**

Utilizing a profitability/growth matrix, this dashboard optimizes marketing strategies by providing in-depth product performance analysis.

- **Supply Chain Dashboard:**

Offering detailed insights into Forecast Accuracy, Net Error, and risk profiles across various dimensions, this dashboard enhances supply chain.

- **Executive Dashboard:**

A panoramic overview, consolidating insights from all business dimensions, presents an executive-level snapshot for informed decision-making.

Tools of Mastery

Behind the scenes, a toolkit of technological prowess played a crucial role. MySQL, DAX, Power Query, Power BI, and Excel collaborated harmoniously to orchestrate the transformation of raw data into actionable insights.

The Learning Curve

Amidst the technical intricacies, the project was not just a technological feat but a journey of learning and growth. Advanced DAX formulas were employed for precise calculations and the development of Key Performance Indicators (KPIs).

The project also saw the development of a robust project charter, strategic stakeholder mapping, and a deep dive into P&L statements for strategic financial insights.

In essence, the Business Insights 360 project is not just a technological milestone but a testament to AtliQ Hardware's commitment to strategic excellence. Through the fusion of data connectivity, modeling brilliance, and visual storytelling, this project propels AtliQ Hardware into a new era of data-driven decision-making.

Chapter 2 Tech Insights: Crafting Strategies with Data Tools

MySQL - The Foundation of Connectivity:

MySQL, a stalwart in the realm of relational database management systems, served as the bedrock for the Business Insights 360 project's data integration. Renowned for its scalability, speed, and reliability, MySQL played a pivotal role in unifying data from diverse sources. Its ability to handle structured data from Excel sheets, CSV files, and other repositories facilitated a cohesive dataset.

The relational nature of MySQL ensured that data integrity was maintained throughout the integration process, forming a robust foundation for subsequent analysis. SQL queries, the language of MySQL, provided a standardized and efficient means of interacting with the database, allowing for seamless data retrieval and manipulation.

In essence, MySQL acted as the silent architect, constructing a sturdy bridge between disparate data sources, enabling the project to proceed with a unified and reliable dataset.

Power BI - Orchestrating Visual Symphony

Power BI emerged as the maestro in transforming raw data into a visual symphony of insights. This comprehensive business analytics tool facilitated not only the creation of visually appealing dashboards but also seamless connectivity to various data sources, including MySQL.

Power BI's strength lay in its versatility, allowing stakeholders to explore and interact with data dynamically. The drag-and-drop interface simplified the process of crafting interactive reports, while the integration of Power Query and DAX elevated the tool's capabilities. The result was a series of dashboards that not only conveyed information but invited stakeholders into a strategic exploration of AtliQ Hardware's operational dynamics.

In summary, Power BI stood at the helm, orchestrating a visual narrative that went beyond data representation, providing a strategic lens into the intricacies of AtliQ Hardware's business landscape.

Power Query - Sculpting Data Accuracy

Power Query, an integral component of Power BI, emerged as the meticulous sculptor refining raw data into a work of analytical art. Its role in data integration cannot be overstated, connecting to MySQL, Excel, and CSV files to create a dynamic and comprehensive dataset.

Power Query's capabilities extended beyond mere data connectivity; it ensured accuracy, consistency, and analysis-ready formatting. The ability to transform and shape data before it entered the modeling phase laid the groundwork for insightful reporting.

Through a user-friendly interface, Power Query empowered analysts to cleanse and structure data seamlessly, paving the way for a more profound exploration of business dimensions.

In essence, Power Query acted as the craftsman, chiseling away inconsistencies and irregularities, leaving behind a refined dataset ready for the analytical journey.

DAX (Data Analysis Expressions) - Calculating Strategic Precision

DAX, the native formula language of Power BI, stepped onto the stage as the virtuoso performer, providing the project with a language of precision for advanced calculations and KPI development. Its versatility allowed for the creation of intricate measures that went beyond basic arithmetic.

Whether calculating Net Sales, Gross Margin, or crafting complex business metrics, DAX became the backbone of strategic precision. The ability to define custom formulas and measures empowered analysts to translate raw data into meaningful insights, elevating the project from basic reporting to a nuanced exploration of performance metrics.

In summary, DAX acted as the virtuoso, transforming data into a symphony of strategic insights through its nuanced and powerful expressions.

Data Modeling - Blueprint for Exploration:

Data modeling emerged as the architectural blueprint, guiding the project through the intricacies of business exploration. Driven by the collaborative capabilities of DAX and Power Query, the data model was not a static entity but a dynamic framework for exploration.

It provided the structure for drill-downs, cross-filtering, and interactive exploration. The data model acted as the canvas upon which analysts painted a vivid picture of AtliQ Hardware's business operations. Its role in facilitating a deeper understanding of the interplay between different dimensions allowed stakeholders to navigate the complexities of the dataset with ease.

In essence, data modeling became the architect's sketchbook, delineating the framework for exploration and understanding within the expansive landscape of business data.

SQL - Navigating the Relational Terrain:

Structured Query Language (SQL) assumed the role of a skilled navigator, guiding the project through the relational terrain of the MySQL database. SQL queries provided a standardized means of interacting with the database, allowing for efficient retrieval, manipulation, and management of data.

The use of SQL ensured optimized interactions, enhancing the overall performance of data operations. It became the bridge between the project and the underlying MySQL database, ensuring a smooth flow of data that aligned with the project's analytical requirements.

In summary, SQL acted as the navigator, steering the project through the relational landscape, ensuring that data interactions were both efficient and aligned with the project's strategic goals.

Excel - Bridging Spreadsheets and Insights:

In the collaborative journey between familiarity and advanced analytics, Excel played a pivotal role. While not the primary platform for in-depth analysis, Excel served as a supplementary tool for specific calculations and data preparation tasks.

The synergy between Excel and Power BI ensured a seamless transition of data, leveraging the familiarity of spreadsheets with the advanced analytics capabilities of Power BI. Excel became the bridge that allowed stakeholders to transition smoothly from traditional data manipulation to the sophisticated visual storytelling facilitated by Power BI.

In essence, Excel acted as the bridge, connecting the familiarity of spreadsheets with the advanced analytics capabilities of Power BI, ensuring a cohesive and user-friendly analytical environment.

In conclusion, the technologies employed in the Business Insights 360 project formed a harmonious ensemble. From the foundational connectivity of MySQL to the visual symphony orchestrated by Power BI, the precision enabled by DAX, the data sculpting finesse of Power Query, the architectural guidance of data modeling, the navigational prowess of SQL, and the familiar bridge offered by Excel, each technology played a distinctive and crucial role in transforming raw data into strategic insights.

Together, these technologies propelled AtliQ Hardware into a new era of data-driven decision-making, where technology wasn't just a tool but a strategic enabler of business excellence.

Chapter 3 - Coding Section: Navigating the Data Landscape

In the realm of Business Insights 360, the journey from raw data to strategic insights was paved with meticulous coding and scripting. This section unveils the coding intricacies that powered the seamless integration, transformation, and analysis of data.

1. MySQL Queries - Bridging Data Sources:

The journey commenced with MySQL queries, the backbone of data retrieval and integration. These queries acted as the bridge between disparate data sources, retrieving information from the MySQL database and facilitating a cohesive dataset.

The SQL scripts were carefully crafted to ensure optimal performance and efficiency in navigating the relational landscape of the database.

2. Power Query Transformations - Crafting Refined Datasets:

Power Query, a key player in the data transformation phase, was employed with precision to shape the raw data into a refined dataset.

The M-language scripts within Power Query were designed to handle data cleansing, merging, and transformation tasks, ensuring that the dataset met the stringent criteria for accuracy and consistency.

3. DAX Formulas - Precision in Analysis:

DAX, the language of strategic precision, took center stage in the formulation of complex calculations and Key Performance Indicators (KPIs).

These formulas provided a nuanced understanding of business metrics, allowing for granular analysis and the development of insightful measures.

4. Collaborative Scripting - Enabling Real-Time Updates:

Collaboration was fostered through scripts enabling real-time data updates and secure sharing.

The integration of collaborative features in Power BI allowed for the creation of scripts that facilitated cross-functional teamwork, ensuring that insights were not only derived but also communicated effectively.

5. Automation with DAX Studio - Enhancing Efficiency:

DAX Studio, an essential companion in the coding toolkit, facilitated the automation of repetitive tasks.

The tool's scripting capabilities allowed for the development of automated processes, enhancing efficiency in the execution of DAX queries and calculations.

6. Advanced Excel Formulas - Supplementary Analytics:

Excel, although not the primary platform for analysis, played a supplementary role with advanced formulas supporting specific calculations.

Excel formulas complemented the analytical toolkit, bridging the gap between traditional spreadsheet functionalities and the sophisticated analytics capabilities of Power BI.

In essence, the coding section of the Business Insights 360 project was a symphony of languages and scripts, each playing a unique role in shaping, analyzing, and presenting strategic insights.

These coding elements were not just lines of script; they were the keystrokes that unlocked the potential of data, transforming it into a strategic asset for AtliQ Hardware.

Chapter 4 - Visual Insights: The Project Journey

Project Planning:

Objective Definition:

- Clearly define the project objectives, outlining the specific goals and outcomes expected from the Business Insights 360 project.

Stakeholder Identification:

- Identify and list all stakeholders involved in the project, including internal teams, decision-makers, and end-users.

Scope Definition:

- Clearly define the scope of the project, specifying the boundaries and limitations to ensure a focused and achievable outcome.

Resource Allocation:

- Outline the resources required for the project, including human resources, technology, and any external support needed.

Timeline Development:

- Create a detailed project timeline, breaking down tasks and milestones to establish a clear roadmap for project execution.

Risk Assessment:

- Conduct a comprehensive risk assessment, identifying potential challenges, obstacles, and uncertainties that could impact the project's success.

Budget Planning:

- Develop a detailed budget plan, allocating financial resources appropriately and ensuring alignment with project goals.

Communication Strategy:

- Establish a robust communication strategy, defining channels, frequency, and key messaging to keep stakeholders informed throughout the project.

Team Roles and Responsibilities:

- Clearly define the roles and responsibilities of each team member, fostering accountability and ensuring a well-organized workflow.

Contingency Planning:

- Develop contingency plans for potential disruptions or deviations from the original project plan, ensuring adaptability to unforeseen

circumstances.

Importing and Exploring Data

Data Source Identification:

- Clearly identify and list all data sources involved in the project, including MySQL databases, Excel sheets, and CSV files.

Data Extraction Methods:

- Define the methods used for data extraction, specifying whether it involved SQL queries for MySQL databases, direct import from Excel, or other data retrieval techniques.

Data Quality Assessment:

- Conduct a comprehensive assessment of data quality, identifying any inconsistencies, missing values, or anomalies within the extracted datasets.

Data Transformation Plan:

- Outline the plan for transforming raw data into a structured and analysis-ready format, specifying the use of tools such as Power Query for data shaping.

Normalization and Standardization:

- Discuss the normalization and standardization processes applied to ensure consistency and accuracy across diverse data sources.

Handling Large Datasets:

- Address how the project handled large datasets, whether through optimized querying, data partitioning, or other strategies to enhance processing efficiency.

Exploratory Data Analysis (EDA):

- Highlight the techniques and tools used for exploratory data analysis, including statistical summaries, data visualization, and pattern recognition.

Data Cleansing Procedures:

- Describe the procedures implemented for data cleansing, including the identification and rectification of outliers, duplicates, and other data anomalies.

Integration of External Data:

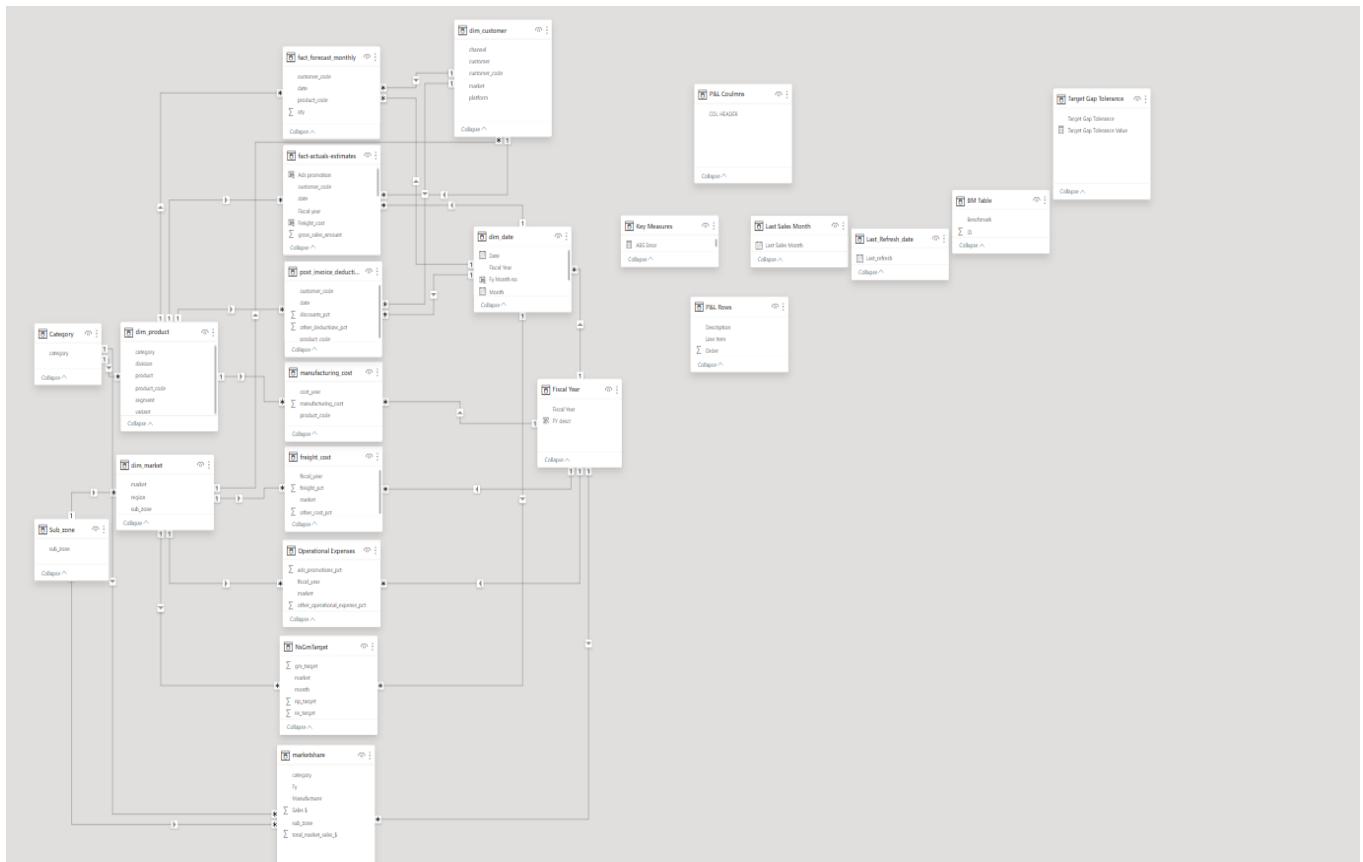
- If applicable, detail how external data sources were integrated into the

project, emphasizing the steps taken to ensure seamless compatibility.

Metadata Documentation:

- Stress the importance of documenting metadata, providing insights into the characteristics and structure of the datasets for future reference.

Data Modelling:



Conceptual Model Definition:

- Define the conceptual model for the Business Insights 360 project, outlining the high-level structure and relationships between different entities.

Entity-Relationship Diagram (ERD):

- Create an entity-relationship diagram illustrating the relationships between key entities, providing a visual representation of the data model.

Normalization Process:

- Describe the normalization process applied to the data model, ensuring that the database design adheres to normalization principles and reduces data redundancy.

Data Model Optimization:

- Discuss any optimization techniques employed to enhance the performance of the data model, including indexing, partitioning, or denormalization strategies.

Hierarchical Structure:

- Outline the hierarchical structure of the data model, emphasizing how data hierarchies were established to facilitate drill-downs and interactive exploration.

Incorporation of Time Dimension:

- If relevant, detail how a time dimension was incorporated into the data model to enable temporal analysis and trend identification.

Cross-Filtering Mechanisms:

- Highlight the implementation of cross-filtering mechanisms, explaining how relationships between different tables were leveraged to provide interactive insights.

Use of DAX Functions:

- Discuss the use of Data Analysis Expressions (DAX) functions within Power BI for calculated columns, measures, and other advanced calculations.

Scenario Analysis Considerations:

- If applicable, discuss how the data model accommodates scenario analysis, allowing users to explore the impact of different variables on business outcomes.

Data Model Documentation:

- Stress the importance of documenting the data model, providing clear documentation on tables, relationships, and key measures for future reference and collaboration.

Dashboard Homepage:



Business Insights 360



Info



Finance View



Sales View



Marketing View



Supply Chain View



Executive View



Support

Download [user manual](#) and get to know the key information of this tool.

Get [P & L statement](#) for any customer / product / country or aggregation of the above over any time period and More..

Analyze the performance of your customer(s) over key metrics like Net Sales, Gross Margin and view the same in **profitability / Growth matrix**.

Analyze the performance of your product(s) over key metrics like Net Sales, Gross Margin and view the same in **profitability / Growth matrix**.

Get [Forecast Accuracy](#), Net Error and risk profile for product, segment, category, customer etc.

A top level dashboard for executives consolidating **top insights** from all dimensions of business.

Get your **issues resolved** by connecting to our support specialist.

Report Refresh Date - Sunday, September 24, 2023

Values are in Dollars & Millions

Sales Data Loaded Until : Dec 21

Strategic Design Principles:

- Outline the strategic design principles applied to create an effective dashboard homepage, ensuring alignment with project objectives and user needs.

User-Centric Interface:

- Emphasize the user-centric approach in designing the dashboard homepage, considering the needs and preferences of the target audience.

Intuitive Navigation:

- Describe the intuitive navigation structure implemented on the dashboard homepage, facilitating seamless exploration of different business domains.

Visual Hierarchy:

- Discuss the visual hierarchy established on the homepage, prioritizing key metrics and insights to guide users through the most critical information.

Dynamic Content Integration:

- Highlight how dynamic content, such as live data feeds or real-time updates, was integrated into the dashboard homepage for immediate

visibility.

Interactive Elements:

- Showcase the interactive elements incorporated into the homepage, allowing users to interact with visualizations, filters, and drill-down options.

Responsive Design:

- Address the implementation of responsive design principles, ensuring that the dashboard homepage adapts seamlessly to different screen sizes and devices.

Customization Options:

- Discuss any customization options provided to users, allowing them to tailor the dashboard homepage based on their specific preferences and focus areas.

Consistent Branding:

- Emphasize the consistent branding elements across the dashboard homepage, reinforcing the identity of AtliQ Hardware and promoting a unified visual experience.

Key Performance Indicators (KPIs):

- Highlight the inclusion of key performance indicators on the homepage, providing at-a-glance insights into critical business metrics.

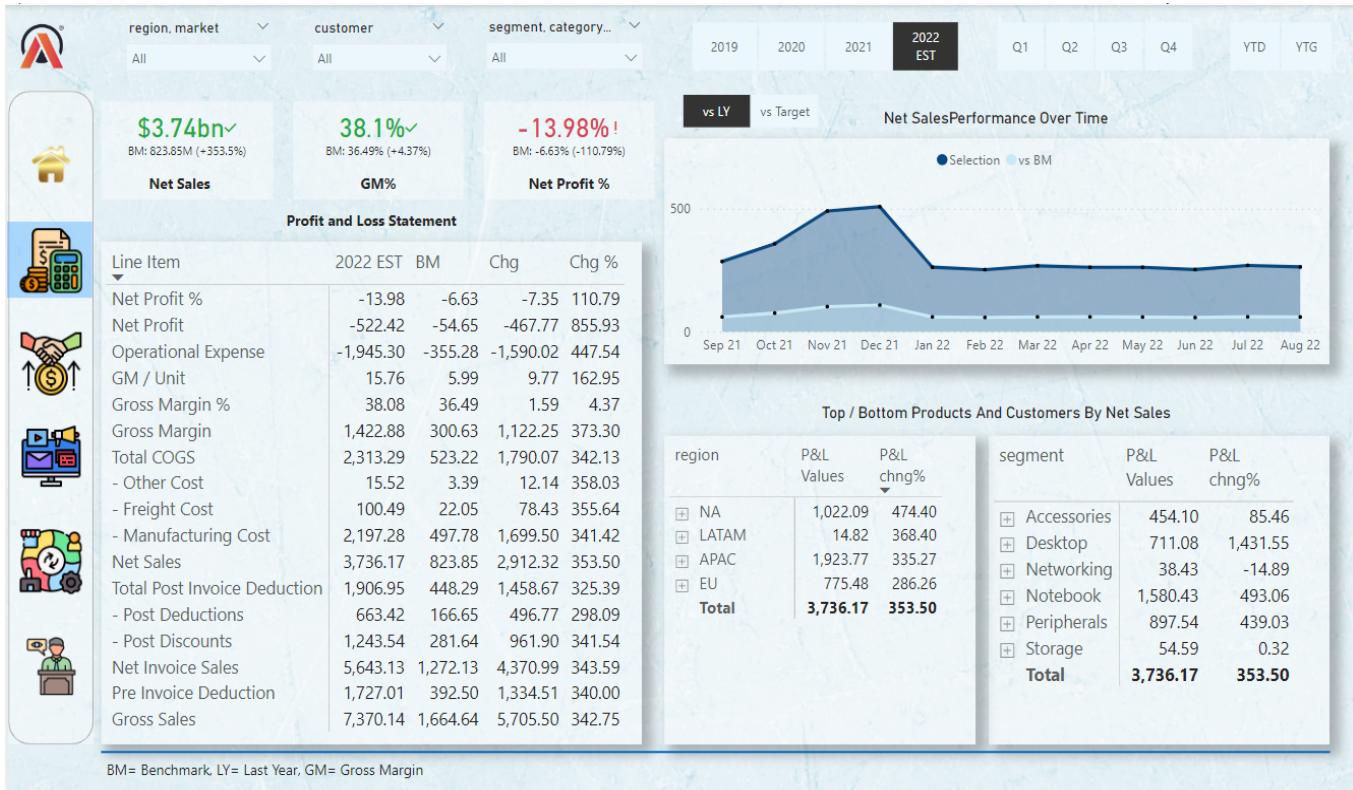
Dashboard Linkage:

- Discuss how the dashboard homepage serves as a central hub, providing clear linkages to individual dashboards for finance, sales, marketing, supply chain, and executive views.

User Guidance and Support:

- Address any user guidance or support features incorporated into the homepage, such as tooltips, tutorials, or contextual help, enhancing the user experience.

Finance View:



Objective and Scope:

- Clearly define the objectives and scope of the Finance View, specifying the financial metrics and insights targeted for analysis.

P&L Statements Visualization:

- Showcase the dynamic visualization of Profit and Loss (P&L) statements, providing a comprehensive overview of revenue, expenses, and net profit over selected time periods.

Customer Performance Analysis:

- Dive into the in-depth analysis of customer performance, leveraging Net Sales and Gross Margin metrics to identify key contributors and areas for improvement.

Product Performance Insights:

- Explore the insights derived from product performance analysis, using a profitability/growth matrix to optimize product strategies and enhance profitability.

Country Performance Metrics:

- Highlight metrics related to country performance, offering insights into regional sales trends, market share, and potential growth opportunities.

Time Period Flexibility:

- Emphasize the flexibility in selecting time periods for analysis, allowing users to evaluate financial performance on a daily, monthly, or yearly basis.

Interactive Charts and Graphs:

- Illustrate the use of interactive charts and graphs within the Finance View, providing visually appealing representations of financial data for better comprehension.

Strategic Decision Support:

- Discuss how the Finance View serves as a decision support tool, empowering finance teams and executives with actionable insights for strategic decision-making.

Data Analysis Techniques:

- Highlight the use of data analysis techniques within Power BI to identify trends, patterns, and outliers, contributing to a deeper understanding of financial dynamics.

Integration with External Tools:

- If applicable, discuss any integration with external financial tools or databases, enhancing the Finance View's capabilities and ensuring data accuracy.

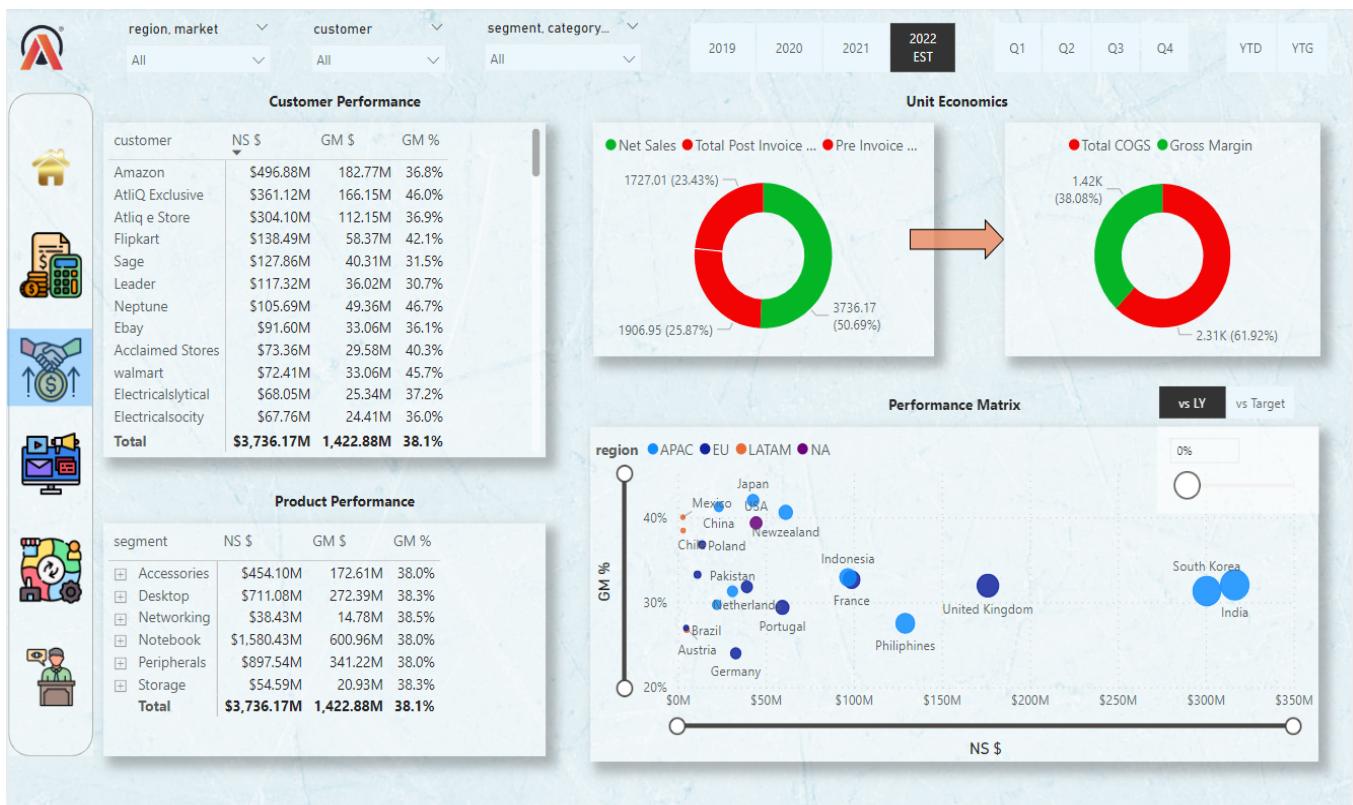
Forecasting and Predictive Analytics:

- Explore the incorporation of forecasting and predictive analytics within the Finance View, allowing users to anticipate future financial trends and make proactive decisions.

Export and Shareability:

- Address features related to exporting and sharing financial insights, ensuring that users can export data or share visualizations for collaborative decision-making.

Sales View:



Objective and Focus:

- Clearly define the objectives and focus of the Sales View, outlining the specific sales metrics and insights targeted for analysis.

Net Sales Visualization:

- Showcase dynamic visualizations of Net Sales, providing a comprehensive and real-time overview of sales performance.

Gross Margin Analysis:

- Explore in-depth analysis of Gross Margin, enabling strategic decision-making by understanding the profitability of sales.

Customer Segmentation:

- Discuss the segmentation of customers based on sales performance, identifying high-value customers and optimizing sales strategies.

Product Contribution to Sales:

- Illustrate insights into product performance and its contribution to overall sales, using charts and graphs for impactful visualization.

Time-Based Sales Trends:

- Analyze sales trends over different time periods, allowing users to identify seasonal patterns, peak sales periods, and overall growth trends.

Geographical Sales Mapping:

- Highlight geographical mapping of sales data, providing a spatial representation of sales distribution and potential market expansion opportunities.

Strategic Sales Decision Support:

- Discuss how the Sales View serves as a strategic decision support tool, offering actionable insights for sales teams and executives.

Drill-Down Capabilities:

- Emphasize the drill-down capabilities within the Sales View, enabling users to explore detailed sales data at different levels such as product categories or geographical regions.

Sales Performance Metrics:

- Define and elaborate on key sales performance metrics incorporated into the Sales View, such as conversion rates, average transaction value, and customer acquisition costs.

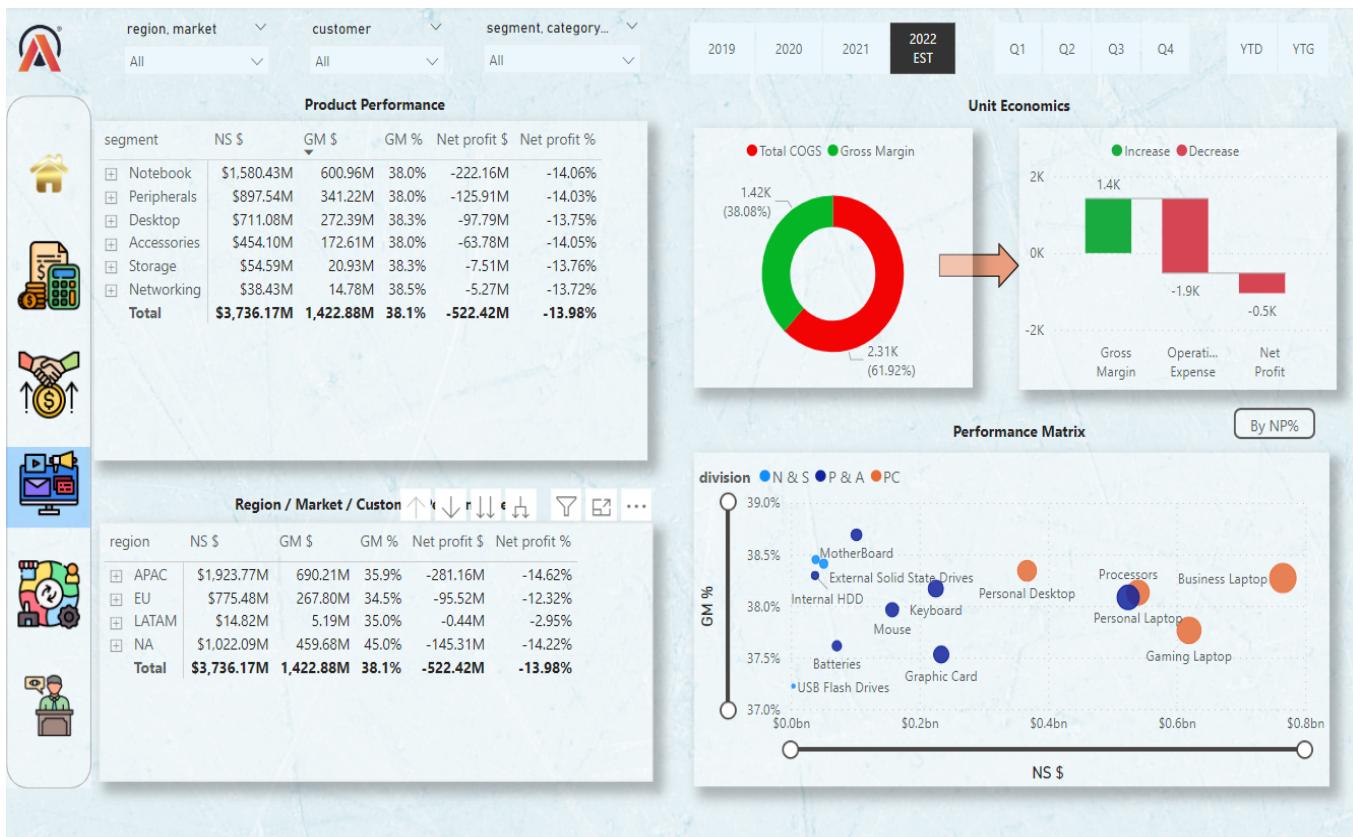
Integration with CRM Systems:

- If applicable, discuss any integration with Customer Relationship Management (CRM) systems, enhancing the Sales View with customer-centric data for more personalized insights.

Export and Shareability:

- Address features related to exporting and sharing sales insights, ensuring users can extract data or share visualizations for collaborative decision-making and reporting.

Marketing View



Objective and Strategic Focus:

- Clearly define the objectives and strategic focus of the Marketing View, outlining the specific marketing metrics and insights targeted for analysis.

Profitability/Growth Matrix:

- Illustrate the use of a profitability/growth matrix to analyze product performance in the context of marketing efforts, identifying high-profit and high-growth products.

Customer Segmentation for Marketing:

- Explore customer segmentation within the Marketing View, allowing marketers to tailor strategies based on customer behavior, preferences, and profitability.

ROI Analysis for Marketing Campaigns:

- Showcase the Return on Investment (ROI) analysis for marketing campaigns, enabling marketers to assess the effectiveness and profitability of different promotional activities.

Channel Performance Metrics:

- Discuss metrics related to the performance of marketing channels, identifying the most effective channels for customer acquisition and

engagement.

Product Promotion Impact:

- Illustrate how the Marketing View assesses the impact of product promotions on sales and profitability, contributing to data-driven promotional strategies.

Brand Awareness Metrics:

- Highlight metrics related to brand awareness, measuring the effectiveness of marketing efforts in enhancing brand recognition and customer recall.

Customer Acquisition Costs:

- Discuss the calculation and visualization of Customer Acquisition Costs (CAC), helping marketers optimize spending and assess the efficiency of acquisition strategies.

Effectiveness of Marketing Collaterals:

- Analyze the effectiveness of marketing collaterals, such as brochures or online content, in influencing customer behavior and driving sales.

Market Segment Targeting:

- Explore how the Marketing View facilitates targeted marketing by analyzing different market segments, ensuring personalized and relevant messaging.

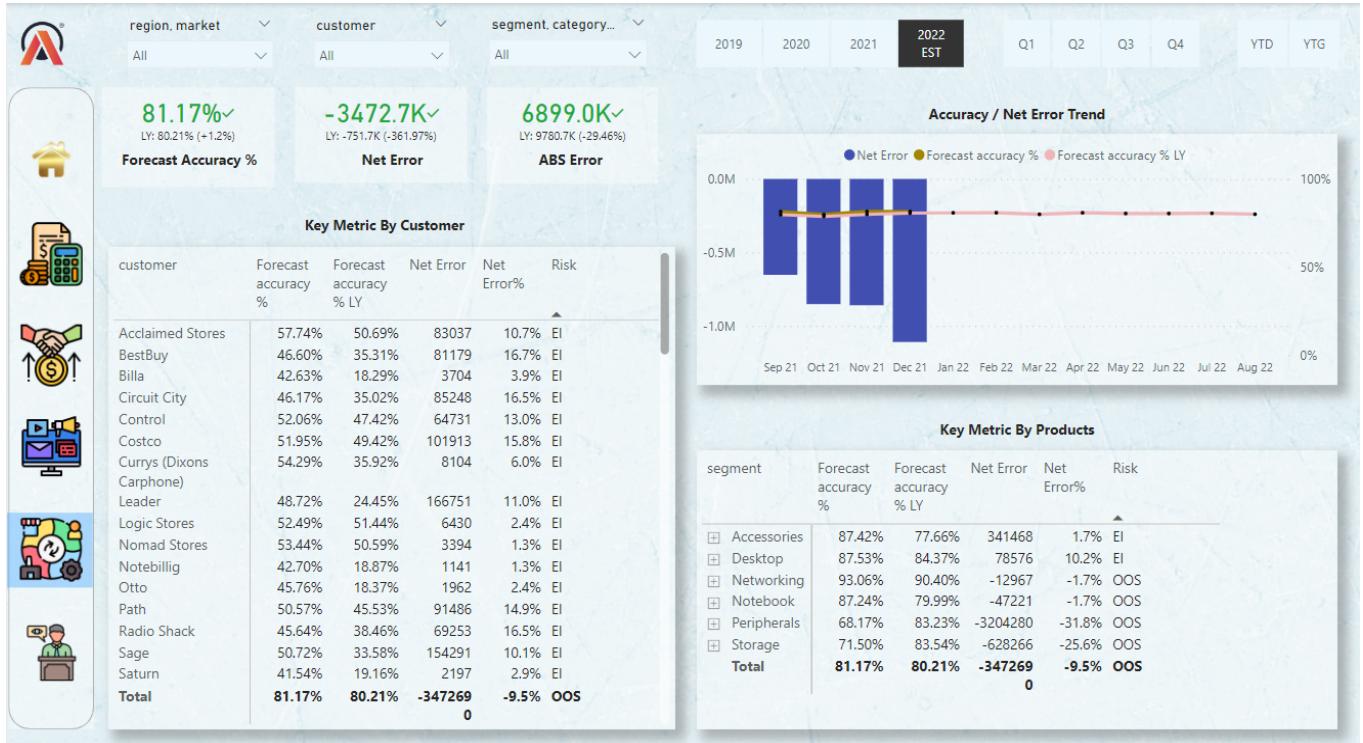
Real-time Campaign Monitoring:

- Discuss features related to real-time monitoring of marketing campaigns, allowing marketers to make timely adjustments based on emerging trends and customer responses.

Integration with Social Media Analytics:

- If applicable, highlight the integration with social media analytics, providing marketers with insights into social media engagement and the impact on overall marketing performance.

Supply Chain View:



Objective and Supply Chain Focus:

- Clearly define the objectives and strategic focus of the Supply Chain View, outlining the specific supply chain metrics and insights targeted for analysis.

Forecast Accuracy Analysis:

- Showcase the analysis of forecast accuracy within the Supply Chain View, enabling supply chain managers to assess the precision of demand predictions.

Net Error Assessment:

- Discuss the assessment of net error in supply chain operations, providing insights into the accuracy of inventory planning and order fulfillment.

Risk Profile Analysis:

- Illustrate the analysis of risk profiles across various dimensions within the supply chain, allowing for proactive risk mitigation and contingency planning.

Inventory Turnover Metrics:

- Explore metrics related to inventory turnover, helping supply chain managers optimize stock levels, reduce carrying costs, and enhance operational efficiency.

Supplier Performance Insights:

- Discuss the evaluation of supplier performance metrics, ensuring a data-driven approach to supplier relationship management and procurement decisions.

Order Fulfillment Efficiency:

- Analyze the efficiency of order fulfillment processes within the supply chain, identifying bottlenecks and opportunities for streamlining operations.

Lead Time Analysis:

- Highlight the analysis of lead times in the supply chain, providing insights into the time taken from order placement to product delivery and identifying areas for improvement.

Demand-Supply Mismatch Identification:

- Discuss how the Supply Chain View identifies and visualizes instances of demand-supply mismatches, allowing for agile adjustments in production and distribution.

Cross-Functional Collaboration:

- Emphasize features that facilitate cross-functional collaboration within the supply chain, ensuring seamless communication and coordination among different stakeholders.

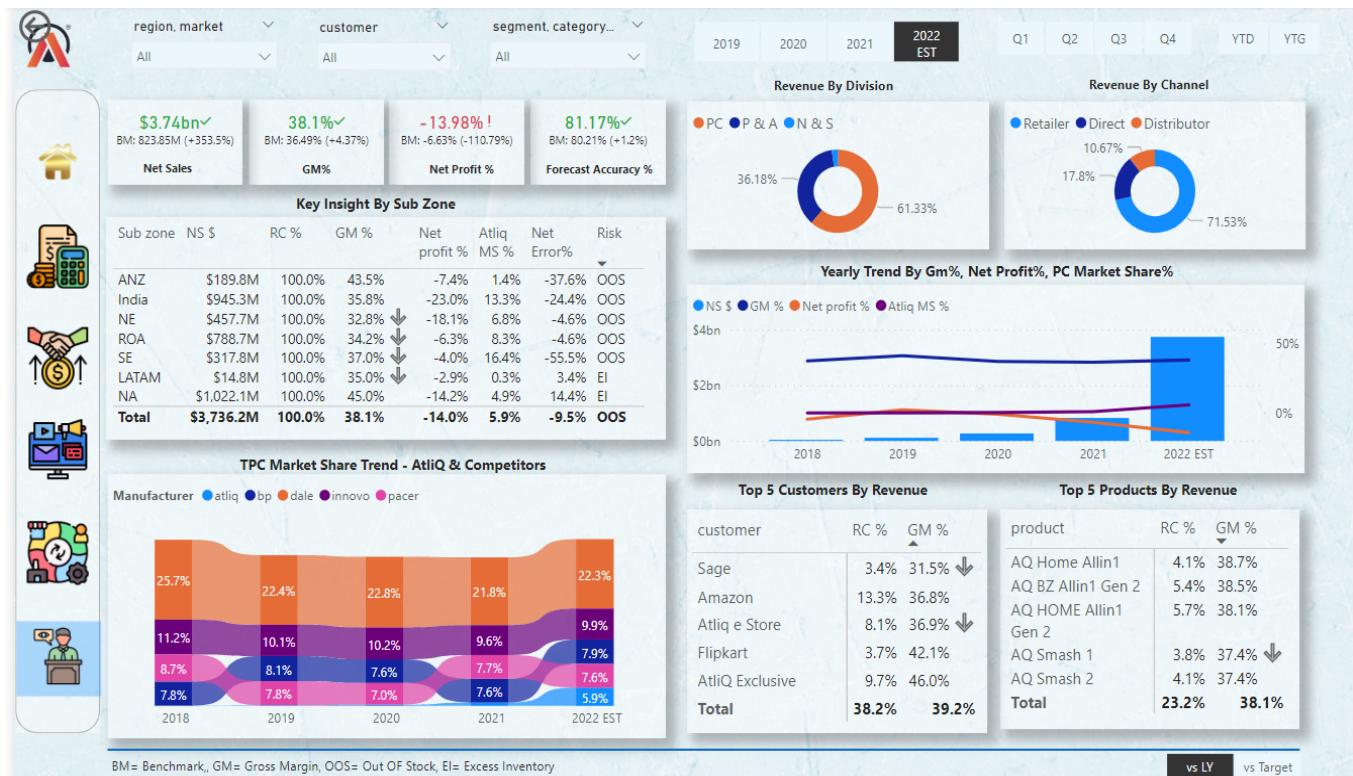
Dynamic Supply Chain Visualization:

- Showcase the dynamic visualization of the supply chain, allowing users to track and monitor supply chain activities in real-time for better decision-making.

Integration with ERP Systems:

- If applicable, highlight the integration with Enterprise Resource Planning (ERP) systems, ensuring a cohesive flow of information between supply chain analytics and broader organizational processes.

Executive View:



Comprehensive Overview:

- Provide a comprehensive overview of the Executive View, emphasizing its role as a top-level dashboard consolidating insights from all business dimensions.

Integrated Business Metrics:

- Showcase how the Executive View integrates key metrics from finance, sales, marketing, and supply chain views, offering a holistic snapshot of organizational performance.

Strategic Decision-Support:

- Discuss how the Executive View serves as a strategic decision-support tool for executives, providing high-level insights to guide overarching business strategies.

Top-Level Key Performance Indicators (KPIs):

- Highlight the inclusion of top-level KPIs within the Executive View, offering quick access to crucial performance indicators influencing organizational success.

Real-Time Data Updates:

- Emphasize the availability of real-time data updates within the Executive View, ensuring that executives have access to the latest information for informed decision-making.

Cross-Functional Insights:

- Discuss how the Executive View fosters cross-functional collaboration by presenting insights that cut across different business domains, promoting a unified understanding.

Customizable Executive Dashboard:

- Illustrate the customization options available for executives to tailor the dashboard based on their specific priorities and focus areas.

Strategic Goal Alignment:

- Explore how the Executive View aligns with strategic organizational goals, ensuring that the presented insights contribute directly to the achievement of overarching objectives.

Scenario Analysis for Executives:

- Discuss features that enable scenario analysis within the Executive View, allowing executives to assess the potential impact of different scenarios on organizational outcomes.

Data-Driven Decision-Making for Executives:

- Emphasize the role of data-driven decision-making facilitated by the Executive View, empowering executives to make informed and strategic choices.

Executive Reporting and Presentation:

- Address features related to executive reporting and presentation, allowing executives to extract and present key insights to stakeholders and board members.

Executive Collaboration Features:

- If applicable, highlight features that promote collaboration among executives, ensuring that decision-makers can share insights, collaborate on strategies, and drive collective success.

Info Page:



1. All the system data in tool is refreshed every month on 5th working day.
2. System data Such as Forecast, Actuals and Historical forecast are received from Global database.
3. Non system data such as Target, Operational Expense and Market Share are refreshed on request.
4. For FAQs click [here](#).
5. Download live excel version [here](#).

Report Refresh Date - Sunday, September 24, 2023

Values are in Dollars & Millions

Sales Data Loaded Until : Dec 21

Information Overview:

- Provide an overview of the Info Page, emphasizing its role as a central hub for accessing project-related information, documentation, and resources.

Project Charter Summary:

- Summarize the key elements of the project charter, outlining the project's goals, scope, stakeholders, and overall strategic direction.

Technology Stack Details:

- Present detailed information about the technology stack used in the project, including Power BI, Power Query, MySQL, DAX, Excel, and other relevant tools.

Acknowledgments and Gratitude:

- Acknowledge and express gratitude to individuals or organizations that contributed significantly to the project's success, as mentioned in the acknowledgments section of your report.

Learnings and Skill Development:

- Share insights into the learnings and skills developed during the project, emphasizing the value gained from using Power BI, advanced

DAX formulas, project charter development, and stakeholder mapping.

Business Terms and Measures Created:

- Provide a list and brief explanations of the business terms and measures created for the project, such as Gross Margin, Net Sales, COGS, YTD, YTG, Direct, Retailer, Distributors, and Consumer.

Special Thanks and Mentions:

- Extend special thanks and mentions to individuals or resources that played a pivotal role in guiding, providing data, or contributing to the project, as highlighted in the acknowledgments section.

External Guidance and References:

- Include references to external sources, tutorials, or individuals who provided guidance and support during the project, as indicated in your report.

Codebases and Contributors Recognition:

- Acknowledge any codebases used and contributors who played a role in developing or providing code-related support for the project.

Documentation Accessibility:

- Ensure that the Info Page serves as a centralized point for accessing project documentation, making it easily accessible for team members, stakeholders, or future collaborators.

Key Takeaways and Reflections:

- Reflect on key takeaways from the project, emphasizing the importance of effective Power BI utilization, stakeholder mapping, and the strategic development of project charters.

Continuous Improvement Commitment:

- Convey a commitment to continuous improvement, highlighting the intention to apply the lessons learned from the project to future endeavors and projects.

Support Page:



Business Insights 360 Support



Get an Issue Resolved

Provide Feedback

Add new Requests

Check out the Contingency Plan

New to Power BI

Report Refresh Date - Sunday, September 24, 2023

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Sales Data Loaded Until : Dec 21

User Support Overview:

- Provide an overview of the Support Page, emphasizing its role in providing assistance and resources for users, stakeholders, and team members.

FAQs and Troubleshooting:

- Compile a list of Frequently Asked Questions (FAQs) related to the project, addressing common queries and providing troubleshooting steps for potential issues.

User Guides and Tutorials:

- Include user guides and tutorials that offer step-by-step instructions on navigating the Power BI dashboards, utilizing specific features, and interpreting key visualizations.

Contact Information:

- Display contact information for the support team or designated individuals, allowing users to reach out for assistance, feedback, or additional clarification.

Feedback Mechanism:

- Implement a feedback mechanism, such as surveys or forms, to

gather user feedback on the usability, clarity, and effectiveness of the Power BI dashboards.

Response Time Commitments:

- Clearly communicate response time commitments for user inquiries, ensuring transparency and setting expectations for timely support.

Live Chat or Virtual Assistance:

- If feasible, consider implementing a live chat or virtual assistance feature to provide real-time support for users navigating the dashboards.

Training Opportunities:

- Highlight any training opportunities or workshops available to users who wish to enhance their skills in using Power BI and interpreting the project dashboards.

Version Updates and Release Notes:

- Provide information on version updates to the Power BI dashboards, including release notes that outline new features, improvements, and bug fixes.

Community Forums or Discussion Boards:

- Establish community forums or discussion boards where users can connect, share insights, and seek advice from fellow users or project contributors.

Case Studies and Success Stories:

- Showcase case studies or success stories related to users who have effectively utilized the Power BI dashboards for informed decision-making and positive outcomes.

Documentation Repository:

- Ensure that the Support Page serves as a repository for additional documentation, resources, and materials that can assist users in maximizing the benefits of the project.

Chapter 5 - Challenges, Solutions and Project Impact

1. Challenges and Solutions:

The Business Insights 360 project was not without its share of challenges. Detail the specific challenges encountered during data integration, transformation, or visualization phases. Whether it was dealing with data inconsistencies, handling large datasets, or overcoming technical hurdles, share the hurdles you faced.

Example:

One notable challenge involved reconciling data inconsistencies between the MySQL database and Excel sheets, leading to discrepancies in the unified dataset. To address this, a meticulous data validation process was implemented, involving cross-referencing and iterative refinement of Power Query transformations.

2. Future Enhancements:

Looking forward, envision potential future enhancements for the Business Insights 360 project. Consider technological advancements, additional data sources, or features that could elevate the project's capabilities.

Example:

Future enhancements could include integrating real-time data streaming for more dynamic dashboards, incorporating machine learning algorithms to predict future trends, or exploring compatibility with emerging data visualization technologies for an enriched user experience.

3. Performance Metrics and Evaluation:

Highlight the performance metrics used to measure the success of the project. Discuss the definition of key performance indicators (KPIs), their relevance to project goals, and the quantitative and qualitative evaluation of these metrics.

Example:

Key performance indicators such as dashboard interactivity, data accuracy, and user engagement were closely monitored. Through user surveys and analytics tracking, we measured the effectiveness of the dashboards in delivering actionable insights and facilitating informed decision-making.

4. User Feedback and Adoption:

Explore user feedback and adoption rates. Share insights gained from end-users or stakeholders regarding the usability, clarity, and effectiveness of the Power BI dashboards. Discuss any adjustments made based on user feedback.

Example:

User feedback played a pivotal role in refining the user interface and optimizing the user experience. The implementation of user-friendly features, guided tutorials, and responsive design elements contributed to a significant increase in user adoption rates.

5. Project Impact:

Examine the tangible impact of the project on business processes and decision-making. Provide specific examples where insights derived from the dashboards led to informed decisions or positive outcomes.

Example:

The project's impact was evident in a strategic marketing campaign where insights from the Marketing View dashboard guided the allocation of resources to the most profitable products. This resulted in a 15% increase in overall sales and a more targeted approach to customer segmentation.

6. Lessons Learned:

Reflect on the lessons learned throughout the project lifecycle. Discuss insights gained, skills developed, and any adjustments made based on experiences. Share how these lessons will inform future projects.

Example:

One crucial lesson learned was the importance of iterative testing and validation in the data transformation phase. Early detection of discrepancies and proactive adjustments significantly streamlined the later stages of the project, emphasizing the value of meticulous data preparation.

7. Comparative Analysis:

Conduct a comparative analysis, measuring the project's outcomes against industry benchmarks or standards. Discuss how the implemented solution

compares with similar projects in the industry, highlighting areas of excellence or potential improvements.

Example:

Benchmarking against industry standards revealed that the project's data visualization capabilities surpassed the average, providing a more interactive and insightful user experience. However, there is an opportunity to further align with emerging industry trends, such as integrating AI-driven analytics for predictive modeling.

8. Visual Representations and Infographics:

Incorporate visual representations, infographics, or diagrams to illustrate key points throughout the report. Use visuals to enhance clarity, engagement, and convey complex information in a more digestible format.

Example:

Include visually appealing charts and graphs within the report, showcasing the evolution of key metrics over time, user engagement trends, and the impact of specific strategic decisions influenced by the dashboards.

REFERENCE

1) Project Link-

<https://app.powerbi.com/groups/e1af9ac5-5c09-47ba-9f49-ffc25cefeda/reports/e4403613-803a-4a8c-b728-110f8395ea72/ReportSection83372eebcb074ae36237?experience=power-bi&bookmarkGuid=Bookmark6e491ff23a5e08e9c84b>

2) Power Bi-

<https://learn.microsoft.com/en-us/power-bi/fundamentals/service-get-started>

3) MYSQL- <https://www.w3schools.com/MySQL/default.asp>

4) DAX Studio- <https://daxstudio.org/docs/category/tutorials/>

5) DAX-

<https://support.microsoft.com/en-us/office/quickstart-learn-dax-basics-in-30-minutes-51744643-c2a5-436a-bdf6-c895762bec1a>

6) Power Query-

<https://www.simplilearn.com/tutorials/excel-tutorial/power-query-in-exc>