

D Y Patil University Pune, Ambi

--School of Engineering & Technology's Department of Computer Engineering--

Under-Graduate Program: B. Tech (CE)

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“SALES DASHBOARD AND ANALYSIS USING POWER-BI”

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Abstract:

This project delves into the comprehensive analysis of sales data from Amazon, one of the world's largest e-commerce platforms, utilizing Power BI as the primary analytical tool. The objective is to extract actionable insights from Amazon's vast sales records to drive strategic decision-making and optimize business performance. The analysis encompasses various dimensions, including sales trends, product performance, customer behavior, geographical distribution, and more. Leveraging Power BI's advanced visualization capabilities, the project aims to provide stakeholders with intuitive dashboards and reports for easy interpretation of complex data. Leveraging Power BI's advanced visualization capabilities, the project aims to provide stakeholders with intuitive dashboards and reports for easy interpretation of complex data.

Introduction:

In the fast-paced world of modern business, harnessing data-driven insights is paramount to success. Sales departments play a pivotal role in driving revenue and growth, making it imperative to have robust tools for monitoring, analyzing, and optimizing sales performance.

One such powerful tool is Microsoft's POWER BI, a business analytics solution that empowers organizations to visualize data and share insights across the enterprise seamlessly. Our synopsis delves into the realm of sales dashboard and analysis using POWER BI, exploring how this innovative platform revolutionizes the way businesses understand and leverage sales data.

The Sales Dashboard and Analysis project aims to leverage the capabilities of Power BI to create a comprehensive and interactive dashboard for analyzing sales data. Power BI is a powerful business intelligence tool that allows users to transform raw data into meaningful insights through data visualization, analytics, and reporting.

This solution aims to provide a concise yet powerful tool for businesses to track and understand their sales performance effectively. By integrating data from various sources such as CRM systems, sales databases, and marketing platforms, the dashboard will offer real-time insights into key sales metrics including revenue trends, customer acquisition rates, product performance, and regional sales distribution. Utilizing Power BI's interactive visualization features, users will be able to drill down into specific data points, generate custom reports, and derive actionable insights to optimize sales strategies and improve overall business performance.

Objectives:

The objective of this project is to leverage PowerBI to conduct detailed sales analysis aimed at providing actionable insights into sales performance, customer behavior, and market trends. By integrating various data sources, including sales transactions, customer demographics, and marketing efforts, the project aims to identify key drivers of sales, pinpoint areas for improvement, and forecast future sales trends.

Through interactive visualizations and dynamic dashboards, the project will empower stakeholders to make data-driven decisions, optimize sales strategies, and ultimately drive revenue growth and market competitiveness.

Scope:

The project scope for sales analysis of Amazon using Power BI could include data collection from Amazon's sales records, integration with Power BI for visualization, analysis of sales trends, product performance, customer behavior, geographical sales distribution, and generation of actionable insights for decision-making. It would involve creating interactive dashboards and reports to provide stakeholders with a comprehensive understanding of Amazon's sales performance.

The future scope of the project on sales analysis of Amazon using Power BI could involve incorporating machine learning algorithms for predictive analytics, leveraging advanced visualization techniques for deeper insights, integrating real-time data streams for up-to-date analysis, and expanding the scope to include other aspects such as inventory management, marketing effectiveness, and customer sentiment analysis. Additionally, there may be opportunities to automate reporting processes and explore cloud-based solutions for scalability and flexibility.

Literature Review:

PowerBI:- PowerBI is a powerful business intelligence tool developed by Microsoft. It allows users to visualize and analyze data from various sources, including databases, Excel files, and cloud services, to gain insights into their business performance. PowerBI enables users to create interactive reports and dashboards, perform ad-hoc data analysis, and share insights with stakeholders. Its intuitive interface and robust features make it a popular choice for organizations looking to make data-driven decisions and derive actionable insights from their data.

Data Preparation:

Import or connect to your data sources. PowerBI supports various data sources such as Excel, SQL databases, cloud services like Azure, and many others.

Data Modeling:

Create relationships between tables if working with multiple data sources.

Visualization:

Design interactive visualizations like charts, graphs, maps, and tables using the PowerBI canvas.

Sharing and Collaboration:

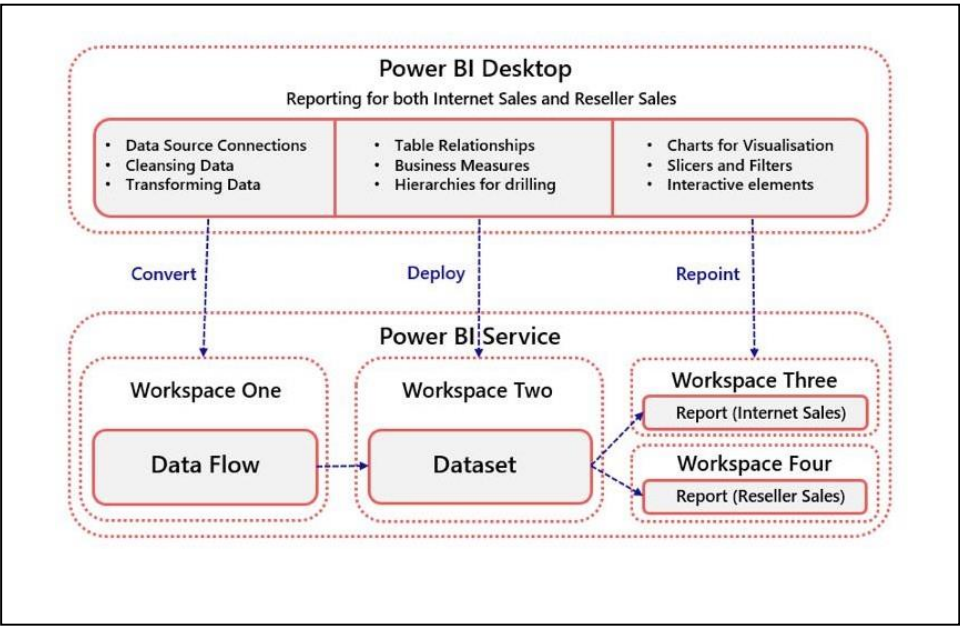
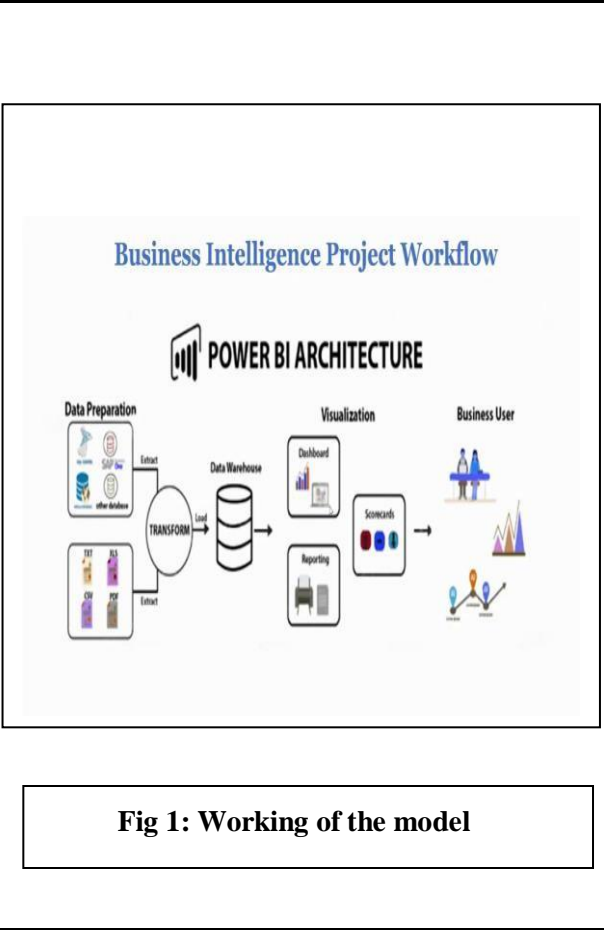


Figure 2: Detailed Working Architecture of Model

Conclusion:

- Summary of key points covered
- Reinforcement of the benefits of using Power BI for sales analysis
- Encouragement for further exploration and adoption
- Reiterate the value of using Power BI for sales analytics.
- Encourage further exploration and utilization of data-driven insights.

References:

- <https://community.fabric.microsoft.com/t5/Desktop/Best-book-to-learn-Power-BI-Power-Query-and-Dax-book-for-expert/td-p/3550312>
- https://www.reddit.com/r/PowerBI/comments/12wcjxd/what_power_bi_books_would_you_recommend/?rdt=65106

"Data Visualization for Business: A Handbook for Data Driven Design" by Jared L. Decker (This book provides a comprehensive guide to creating effective data visualizations, including sales dashboards, using various tools and techniques.)