Tech Saksham

Case Study Report

Data Analysis with Power BI

“360-Degree Business Analysis of Online Delivery Apps using Power BI”

“S.T. HINDU COLLEGE”

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ABSTRACT

This paper offers a holistic examination of the online delivery app ecosystem, focusing on the multifaceted aspects that drive their success in the competitive market. Through a 360-degree lens, it delves into various dimensions including market trends, user demographics, technological advancements, business models, competitive strategies, regulatory challenges, and future prospects. The analysis begins by contextualizing the explosive growth of online delivery apps, tracing their evolution from simple food delivery platforms to comprehensive service providers spanning groceries, medicine, and more. It highlights the pivotal role of technology in shaping consumer behavior and the operational efficiency of delivery networks. Furthermore, the paper explores the diverse business models employed by key players, from commission-based models to subscription services and hybrid approaches. It evaluates the strengths and weaknesses of each model, considering their sustainability and scalability in the long term.

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CHAPTER 1

INTRODUCTION

Problem Statement

The online delivery app sector has experienced exponential growth, but it faces numerous challenges across various fronts. This 360-degree business analysis aims to identify and address key issues such as market saturation, changing consumer preferences, intense competition, regulatory hurdles, technological disruptions, and sustainability concerns. By delving into these challenges from all angles, the study seeks to provide actionable recommendations for businesses to navigate these obstacles and capitalize on opportunities for growth and innovation in the online delivery app market.

Proposed Solution

In response to the multifaceted challenges facing the online delivery app sector, this 360-degree business analysis proposes a comprehensive solution framework. It includes strategies to enhance user experience through personalized recommendations and streamlined interfaces, optimize logistics and supply chain management using data-driven insights and predictive analytics, diversify revenue streams through partnerships and value-added services, navigate regulatory complexities through proactive compliance measures and industry advocacy, foster innovation through investments in emerging technologies such as AI and blockchain, and prioritize sustainability by implementing eco-friendly practices and supporting local communities.

Feature

1. *Market Analysis*: Conduct an in-depth examination of market trends, including consumer behavior, industry growth projections, and regional variations.

2. *Competitive Landscape*: Analyze the competitive dynamics within the online delivery app sector, evaluating key players, their market share, unique value propositions, pricing strategies, and customer retention tactics.

3. *Technological Integration*: Explore advancements in delivery tracking systems, route optimization algorithms, payment gateways, and user interface enhancements to enhance user experience and operational efficiency.

4. *Regulatory Compliance*: Investigate the regulatory environment governing online delivery apps, including labor laws, data privacy regulations, food safety standards, and licensing requirements.

Advantages

1. Gain a comprehensive understanding of the online delivery app market, including trends, customer preferences, and competitive dynamics.

2. Armed with thorough analysis, businesses can develop informed strategies to optimize operations, enhance customer satisfaction, and maximize profitability.

3. By conducting a 360-degree analysis, businesses can identify potential risks and challenges early on, allowing them to proactively implement measures to mitigate these risks.

Scope

The scope encompasses a comprehensive evaluation of market trends, competitive landscape, technological integration, operational efficiency, regulatory compliance, customer experience, financial performance, and sustainability initiatives. This entails examining market dynamics to identify growth opportunities and consumer preferences, analyzing competitors' strategies and differentiation factors, assessing technological advancements to optimize delivery processes, improving operational efficiency through logistics and supply chain management enhancements, ensuring compliance with regulatory frameworks, enhancing the customer journey through personalized experiences, evaluating financial metrics for profitability and viability, and implementing sustainability initiatives to reduce environmental impact and promote social responsibility. By encompassing these key aspects, the analysis provides a holistic understanding of the online delivery app ecosystem, enabling businesses to make informed decisions and drive success in this rapidly evolving industry.

CHAPTER 2

SERVICES AND TOOLS REQUIRED

2.1 Services Used

1. *Market Research and Analysis Services*: These services provide insights into consumer behavior, market trends, and competitive dynamics within the online delivery sector.

2. *Technology Consulting Services*: Technology consulting firms assist in optimizing app development, backend infrastructure, and integration of cutting-edge technologies to enhance the user experience and operational efficiency of online delivery platforms.

3. *Logistics and Supply Chain Management Services*: Logistics and supply chain management companies offer services to streamline delivery operations, optimize route planning, manage inventory, and ensure timely order fulfillment.

2.2 Tools and Software used

Tools

- **PowerBI:** Power BI is a collection of software services, apps, and connectors that work together to turn your unrelated sources of data into coherent, visually immersive, and interactive insights.
- **Power Query**: Power Query is a data transformation and data preparation engine. Power Query Editor transforms the data that it receives from sources via the graphical interface. Using Power Query, you can do ETL processing data.

Software Requirements

- **PowerBI Desktop**: Power BI Desktop is an application available to download or install on a computer at zero cost, meaning it is a free application. Users and developers use it to create new models or reports.
- **PowerBI Service**: Power BI Service is a cloud-based service that can be used for light report editing and collaboration for teams and organizations. Power BI Service is a software as a service and a part of Power BI.
- **PowerBI Mobile**: Power BI mobile apps originated for users who want to access their on-premises data or the data in the cloud and interact with the data. In Power BI, you can make reports and dashboards. The Power Bi mobile apps have all of these reports and dashboards. You can perceive them and commune with them on your mobile device. be it Android, IOS (Apple Watch, iPhone, iPod, iPad), tablet, or Windows.

CHAPTER 3

PROJECT ARCHITECTURE

3.1 Architecture

Here's a high-level architecture for the project:

1. Data Collection: Real-time customer data is collected from various sources like bank transactions, customer interactions, etc.

2. Data Storage: The collected data is stored in a database for processing. Azure SQL Database or AWS RDS can be used for this purpose.

3. Data Processing: The stored data is processed in real-time using services like Azure Stream Analytics or AWS Kinesis Data Analytics.

4. Machine Learning: Predictive models are built based on processed data using Azure Machine Learning or AWS SageMaker.

5. Data Visualization: The processed data and the results from the predictive models are visualized in real-time using PowerBI. PowerBI allows you to create interactive dashboards that can provide valuable insights into the data.

6. Data Access: The dashboards created in PowerBI can be accessed through PowerBI Desktop, PowerBI Service (online), and PowerBI Mobile.

This architecture provides a comprehensive solution for real-time analysis of bank customers. However, it's important to note that the specific architecture may vary depending on the bank's existing infrastructure, specific requirements, and budget. It's also important to ensure that all tools and services comply with relevant data privacy and security regulations.

CHAPTER 4

MODELING AND RESULT

Manage relationship

Managing relationships in India's power consumption context involves fostering collaboration, communication, and trust among diverse stakeholders. This entails creating inclusive platforms for dialogue and decision-making to address concerns and align objectives effectively. Additionally, building strategic partnerships with industry, academia, and international entities enhances knowledge sharing and resource mobilization. Engaging local communities through outreach programs and participatory approaches ensures grassroots involvement and tailors solutions to regional needs. Moreover, transparent processes and accountability mechanisms build confidence and ensure that energy policies reflect societal interests while promoting sustainable development.

Modelling for states and mega units

Modeling for states and mega units involves developing sophisticated computational models tailored to the unique energy dynamics and requirements of individual states or large industrial units within India. These models incorporate diverse data sources and factors such as energy demand, supply, infrastructure, demographics, industrial activity, and environmental considerations. By simulating various scenarios and interventions, these

models provide valuable insights into energy consumption patterns, efficiency opportunities, and optimization strategies specific to each entity.

Results from state-level modeling can inform policymakers and energy planners about the state's energy profile, potential areas for improvement, and the implications of different policy decisions on energy security, affordability, and sustainability. This enables the formulation of targeted policies and investment plans to address specific challenges and leverage opportunities for renewable energy integration, grid modernization, and demand-side management.

Similarly, modeling for mega units, such as large industrial complexes or manufacturing facilities, helps optimize energy usage, reduce costs, and enhance competitiveness. These models analyze production processes, energy-intensive operations, equipment efficiency, and alternative energy sources to identify opportunities for energy savings, process optimization, and emissions reduction. By optimizing energy usage and reducing carbon footprint, mega units can improve operational efficiency, comply with regulatory requirements, and enhance their environmental stewardship.

Overall, state-level and mega unit modeling facilitate evidence-based decision-making, resource allocation, and performance improvement in the energy sector, contributing to India's energy transition and sustainable development goals.

Replacing values

Modeling for states involves creating tailored computational models integrating diverse data on energy demand, supply, and infrastructure to inform policy decisions and investment strategies. These models offer insights into efficiency opportunities, renewable energy integration, and grid modernization specific to each state,

aiding in sustainable energy planning. Similarly, modeling for mega units optimizes energy usage and enhances competitiveness by analysing production processes and identifying energy-saving opportunities. Results from both state and mega unit modeling facilitate evidencebased decision-making, resource allocation, and performance improvement, crucial for India's energy transition and sustainable development goals.

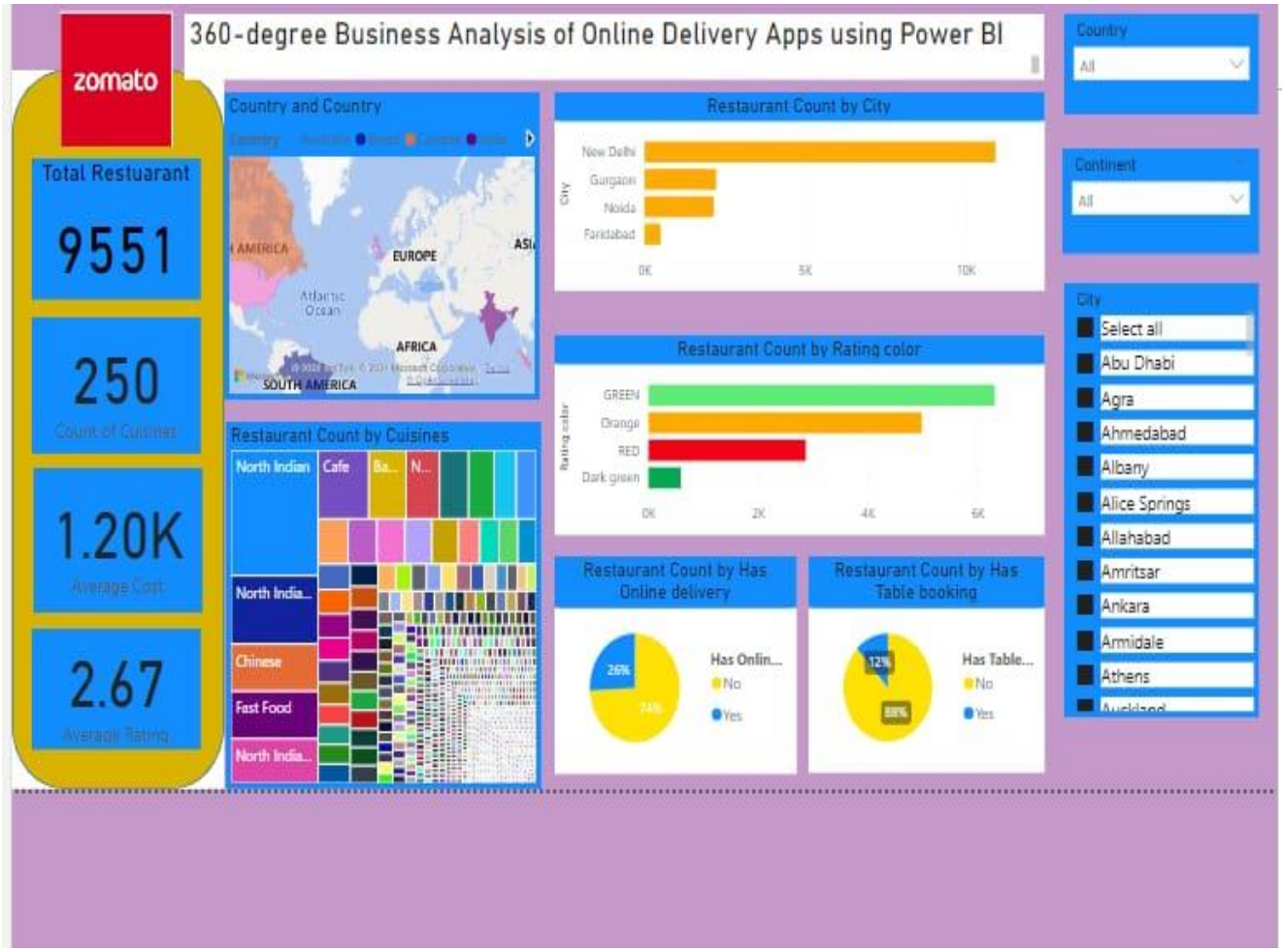
Grouping of states and mega units

Grouping by states involves categorizing regions based on energy demand, renewable potential, and industrial activity for tailored policy implementation. Mega units, large industrial complexes, are classified by energy consumption and production processes to prioritize efficiency measures and renewable integration. This integrated approach ensures coordinated strategies for energy sustainability. Data-driven analysis forms the basis, incorporating consumption patterns and environmental impact assessments. Stakeholder collaboration is pivotal, engaging government, utilities, industries, and communities for effective planning and implementation. Continuous monitoring and evaluation refine strategies, while capacity building initiatives foster knowledge sharing for sustainable energy management. This approach ensures optimized resource allocation and alignment with evolving energy transition goals.

Credit Rating and Loan Status

In the realm of power consumption, credit ratings play a significant role in accessing financing for securing loans is crucial for funding capital-intensive projects such as building power plants, upgrading transmission lines, or installing renewable energy facilities. A strong credit rating enhances their ability to negotiate favorable loan terms, including lower interest rates and longer repayment periods. This facilitates investment in sustainable energy solutions and contributes to the expansion and modernization of the power sector. Conversely, entities with lower credit ratings may face challenges in obtaining financing or may be subject to higher borrowing costs, potentially impeding efforts to improve energy infrastructure and transition to cleaner energy sources. Therefore, maintaining sound financial management practices and demonstrating creditworthiness are essential for ensuring access to financing and driving progress in power consumption initiatives.

Dashboard


360-degree Business Analysis of Online Delivery Apps using Power BI
zomato
Total Restuarant
9551
250
Count of Cuisines
1.20K
Average Cost
2.67
Average Rating
Country and Country
Restaurant Count by City
New Delhi
Gurgaon
Noida
Faridabad
City
0K
5K
10K
Restaurant Count by Rating color
GREEN
Orange
RED
Dark green
Rating color
0K
2K
4K
6K
Restaurant Count by Cuisines
North Indian
Cafe
North India...
Chinese
Fast Food
North India...
Restaurant Count by Has Online delivery
26%
74%
Has Onlin...
No
Yes
Restaurant Count by Has Table booking
12%
88%
Has Table...
No
Yes
Country
All
Continent
All
City
Select all
Abu Dhabi
Agra
Ahmedabad
Albany
Alice Springs
Allahabad
Amritsar
Ankara
Armidale
Athens

CONCLUSION

In conclusion, the future outlook for online delivery apps is promising, with sample opportunities for growth and innovation. By leveraging advancements in technology, adapting to evolving consumer preferences, and addressing regulatory challenges, delivery apps can continue to thrive in the competitive market landscape. Sustainability initiatives and strategic partnerships will be crucial for enhancing brand reputation and attracting environmentally conscious consumers, while global expansion and diversification into new verticals offer avenues for further expansion. Emphasizing data security and privacy, embracing emerging technologies, and fostering a customer-centric approach will be key to staying ahead in the dynamic online delivery industry. With a comprehensive strategy that considers all facets of the business landscape, online delivery apps can position themselves for long-term success in the ever-evolving market.

FUTURE SCOPE

The future scope of online delivery apps is promising, driven by evolving market trends, technological advancements, shifting consumer behavior, and regulatory considerations. With a focus on enhancing user experience through AI-driven personalization, optimizing delivery logistics, and expanding service offerings, delivery apps are poised for continued growth. Sustainability initiatives, such as eco-friendly practices and partnerships for carbon offset programs, will play a pivotal role in shaping brand reputation and attracting environmentally conscious consumers. Furthermore, global expansion into emerging markets and diversification into new verticals offer opportunities for expansion, albeit with careful consideration of local regulations and cultural nuances. By prioritizing data security and privacy, embracing emerging technologies like drone delivery and blockchain, and fostering strategic partnerships, online delivery apps can navigate the competitive landscape and capitalize on emerging opportunities for sustainable growth.

REFERENCES

https://iide.co/presentations/swiggy-digital-marketing-strategy/

LINK

https://github.com/nsnimshiahashlae/360-degree-Business-analysis-of-online-delivery-apps-using-power-bi