



GOVERNMENT ARTS COLLEGE (AUTONOMOUS), COIMBATORE – 18.

DEPARTMENT OF PHYSICS

A PROJECT REPORT ON

**UNVEILING MARKET INSIGHTS : ANALYSING SPENDING
BEHAVIOUR AND IDENTIFYING OPPORTUNITIES FOR GROWTH**

BASED ON THE COURSE

**FUNDAMENTALS OF DATA ANALYTICS WITH TABLEAU –
SMARTBRIDGE**

SUBMITTED

ABI A	bru001221bph001
DIVYADHARSHINI N	bru001221bph003
KANISHKA B	bru001221bph004
MALARVIZHI S	bru001221bph005
SURYA S	bru001221bph032

TEAM ID – NM2023TMID24818

UNDER THE GUIDANCE OF

Dr.G.KANCHANA M.Sc., Ph.D.

ASSOCIATE PROFESSOR

DEPARTMENT OF PHYSICS

SUBMITTED TO

**NAAN MUDHALVAN – SMART INTERNZ
DATA ANALYTICS UPSKILL PROGRAMING**



**FUNDAMENTALS OF DATA ANALYTICS WITH TABLEAU -
SMARTBRIDGE**

NAAN MUDHALVAN ID:

ABI. A	B025043E4286631BFEF4F2C8764CBC86
DIVYADHARSHINI.N	634BEAE325EA60E81674C099D1512DDC
KANISHKA.B	BF80EFC649B7EC5B5AC47762D83DB991
MALARVIZHI.S	32649B2E993082995A1402032704DE6D
SURYA.S	354E16F0436411095204AE39F6D1F9C2

ACKNOWLEDGEMENT

We express our sincere and profound gratitude to our Principal **Dr.R.Ulagi M.Sc., M.Phil., Ph.D.**, for her guidance and sustained encouragement for the successful completion of this project.

We feel immense pleasure in expressing our humble note of gratitude to our Associate Professor & Head of the Department **Dr.P.Elango M.Sc., M.Phil., Ph.D.**, (Department Of Physics) for his remarkable guidance.

We are thankful to our project guide **Dr.G.Kanchana M.Sc., Ph.D.**, and **Dr.P.Hemalatha M.Sc., M.Phil., MCA., Ph.D.**, for are valuable suggestions and guidance throughout their arise in the course of the project. Besides her positive approach she has offered incessant helps in all possible way from the beginning.

We are grateful for expressing our sincere gratitude to all the **SmartBridge – Smart Internz DA-Mentors** who were associated with the **Naan Mudhalvan Upskill Platform** and other faculty members of Tableau for providing valuable guidance in the part of completing the Data Analytics course.

We also extend our thanks to other faculty members, parents and friends for providing their moral support in successfully completing this project.

Thankyou!

INDEX

S.NO	CONTENTS (PROJECT FLOW)
1	INTRODUCTION 1.1 Over view 1.2 Purpose
2	PROBLEM DEINITION & DESIGN THINKING 2.1 Empathy Map 2.2 Ideation & Brainstorming Map
3	RESULT
4	ADVANTAGES & DISADVANTAGES
5	APPLICATIONS
6	CONCLUSION
7	FUTURE SCOPE

INTRODUCTION

1.1 OVERVIEW

In today's highly competitive business landscape, gaining deep market insights is essential for businesses to thrive and grow. By analyzing customer spending behavior, businesses can identify trends, patterns, and opportunities that can be leveraged to develop new products and services, expand into new markets, and improve their marketing and sales strategies.

This project aims to provide an overview of how data analytics can be used to analyze customer spending behavior and identify opportunities for growth.

1.2 PURPOSE

The purpose of the article "UNVEILING MARKET INSIGHTS: ANALYSING SPENDING BEHAVIOUR AND IDENTIFYING OPPORTUNITIES FOR GROWTH" is to help businesses understand their customers' spending behavior and identify opportunities for growth. The article does this by providing a framework for analyzing spending data, as well as case studies of businesses that have successfully used this framework to grow their businesses.

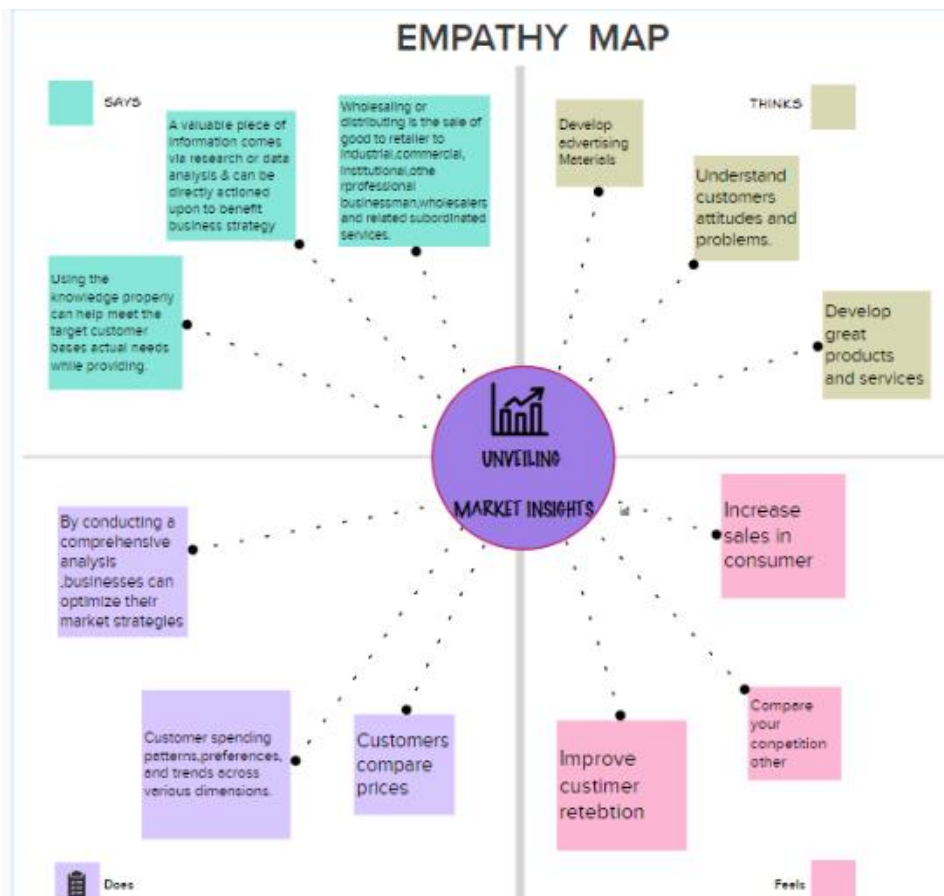
The article begins by discussing the importance of understanding customer spending behavior. It argues that by understanding how customers spend their money, businesses can better identify their target markets, develop more effective marketing strategies, and create products and services that meet their customers' needs.

PROBLEM DEFINITION & DESIGN THINKING

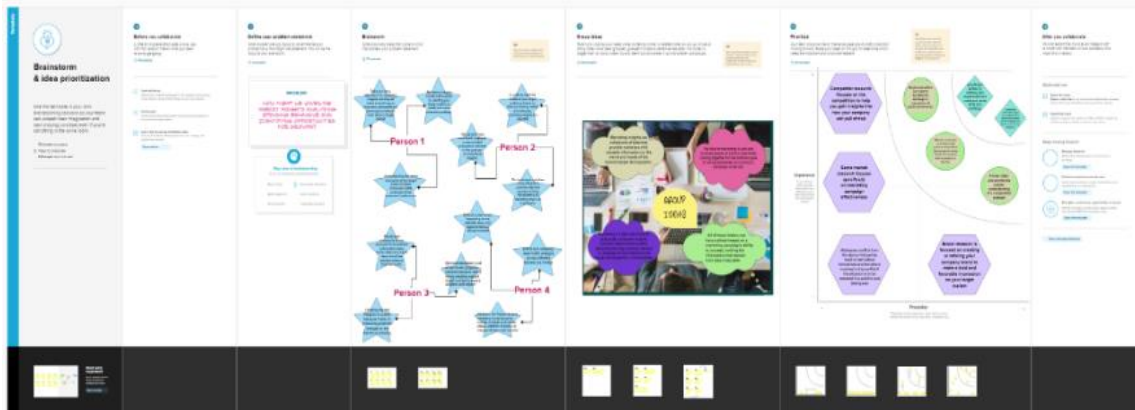
EMPATHY MAP & BRAINSTORMING MAP

In order to fulfil the milestone Empathy map and Brainstorming map was created by group discussions. Those maps are uploaded in github and the links to access those files are hyperlinked here - [Brainstorming](#), [Empathy Map](#)

2.1 EMPATHY MAP



2.2 BRAINSTORMING MAP



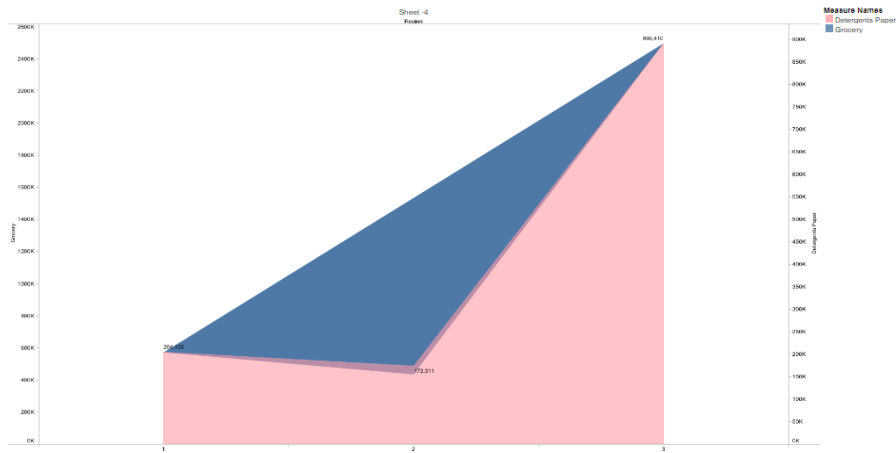
RESULT

VISULIZATIONS OF SHEETS

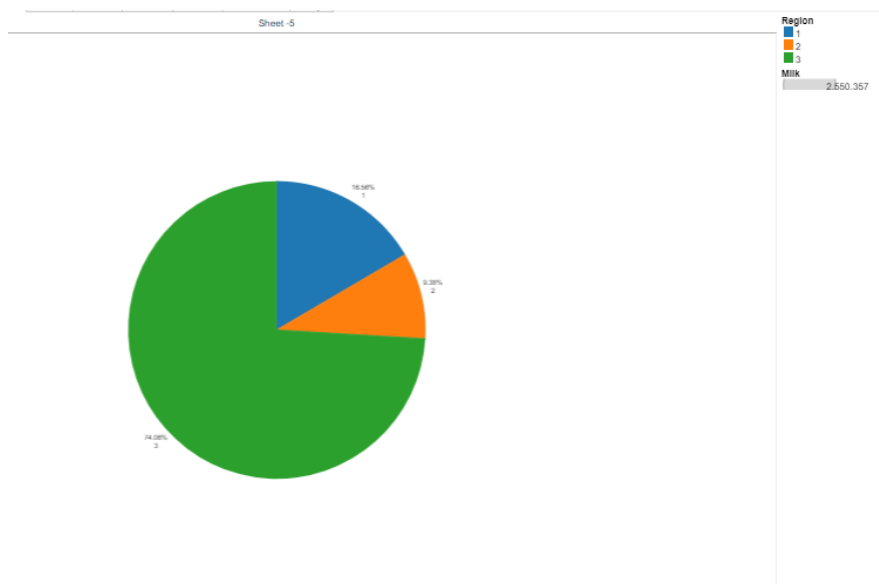
1.KPI's

Sheet - 1	Sheet - 2	Sheet - 3
Milk 2,550,357	Grocery 3,498,562	Fresh 5,280,131

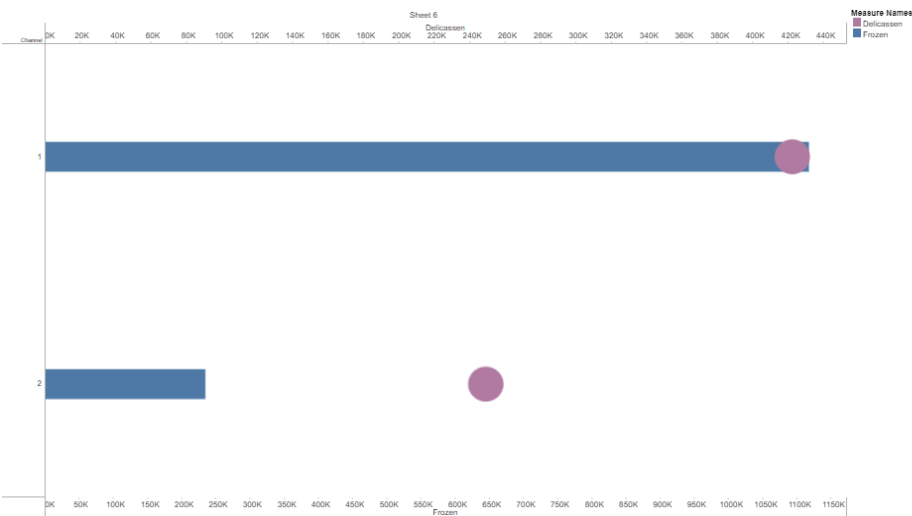
2.Region wise detergent paper and grocery



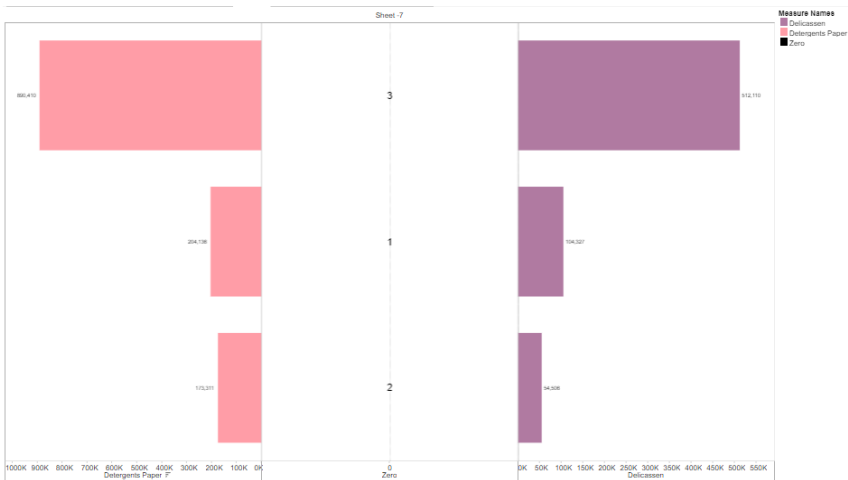
3. Region wise milk



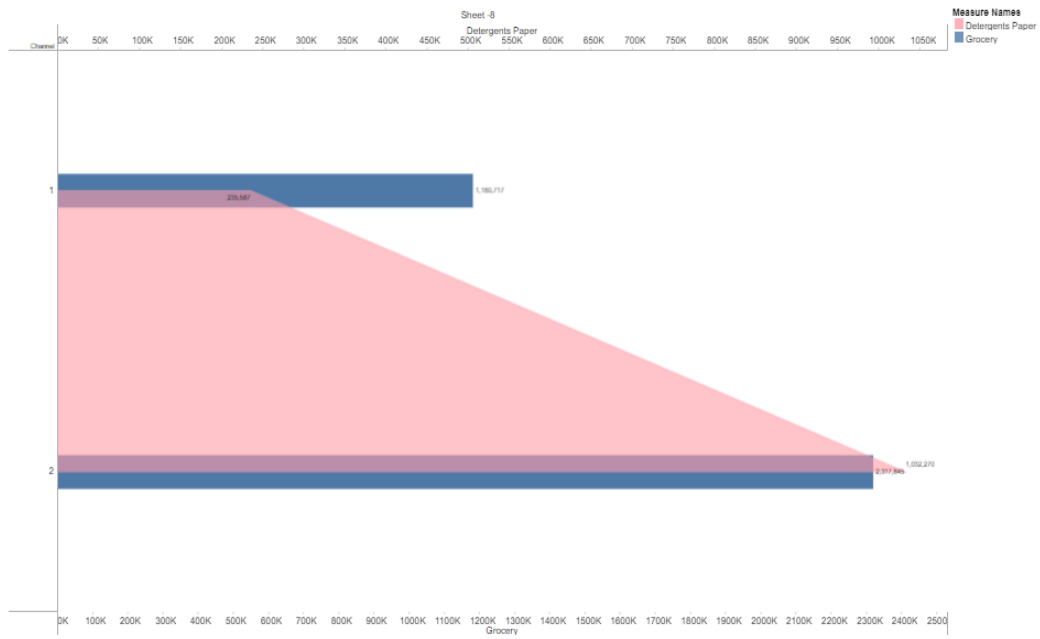
4. Channel wise frozen and delicatessen



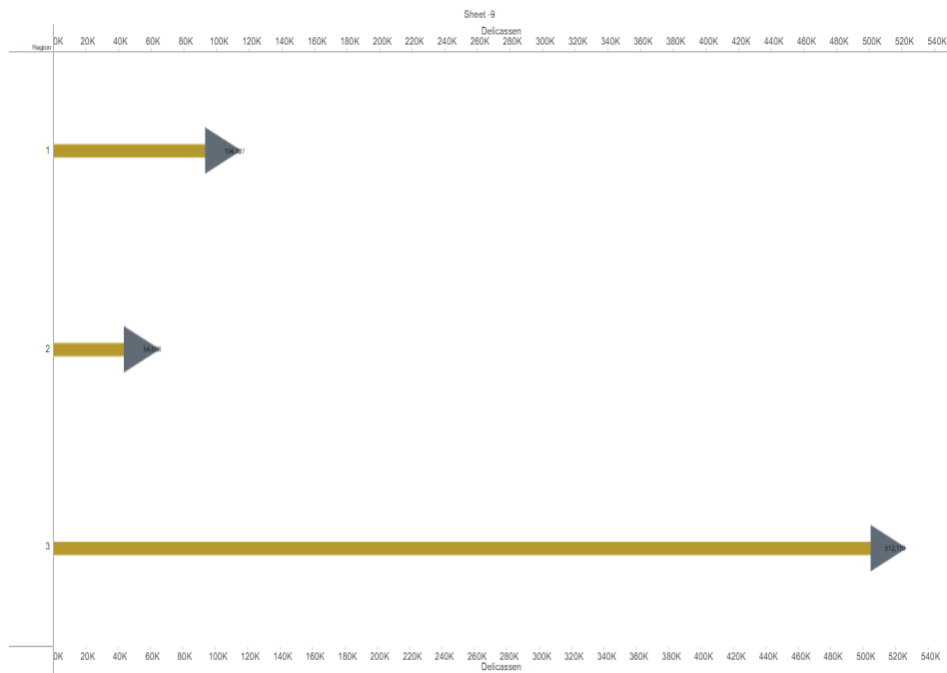
5. Region wise delicatessen and detergent paper



6. Channel wise grocery and detergent paper

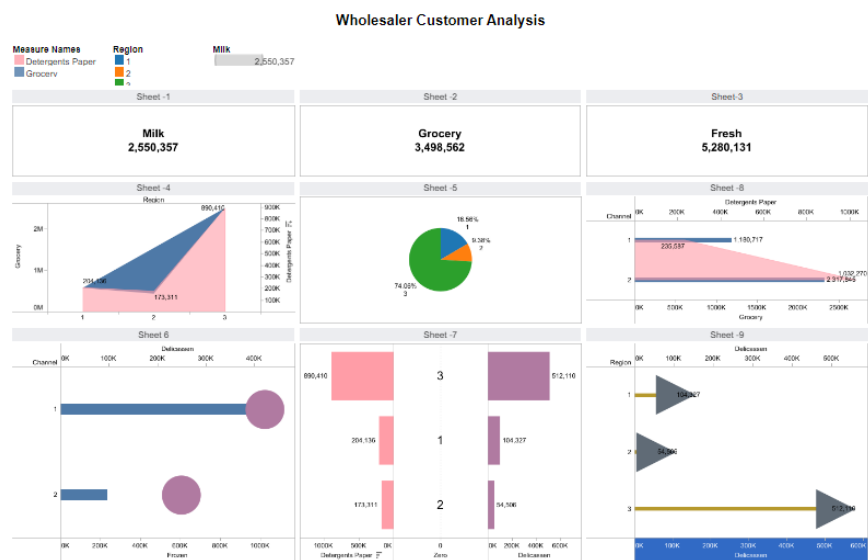


7.Region wise delicatessen



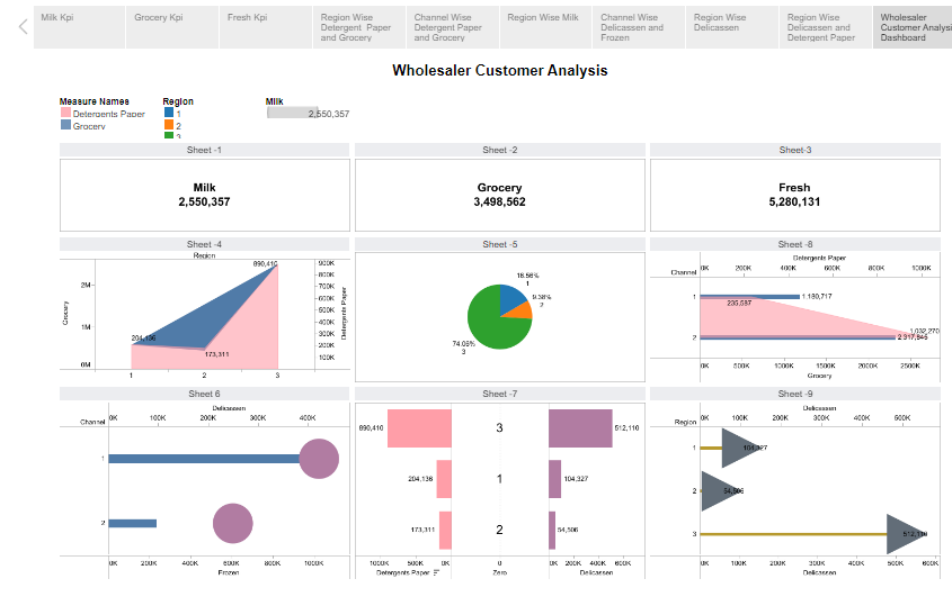
DASHBOARD

DASHBOARD 1



STORY

STORY 1



In the created story line we have a total of 4 scenes showcasing the details of created worksheets.

The visualisation of sheets,story & dashboard are published in the tableau public server.

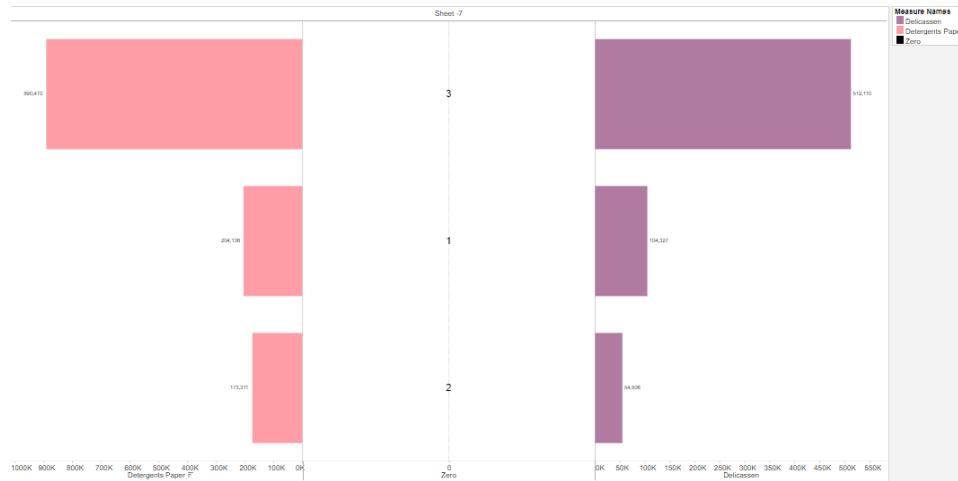
NUMBER OF VISUALIZATIONS/ GRAPHS

1. KPI's
2. Region wise detergent paper and grocery
3. Region wise milk
4. Channel wise frozen and delicatessen
5. Region wise delicatessen and detergent paper
6. Channel wise grocery and detergent paper
7. Region wise delicatessen

PUBLISHING

Publishing helps us to track and monitor key performance metrics, to communicate results and progress. help a publisher stay informed, make better decisions, and

communicate their performance to others. The story and dashboard are published in the tableau public server. The link for visiting the site is hyperlinked here – [Unveiling market insights: analysing spending behaviour and identifying opportunities for growth](#)



LINKS TO ACCESS PROJECT FILES :

1. [Github Repository](#)
2. [Brainstorm Map](#)
3. [Empathy Map](#)
4. [Dashboard](#)
5. [Tableau Public Server -Unveiling Market Insights](#)
6. [Story](#)
7. [Visualisation of sheets](#)

ADVANTAGES

1. **Advantages of unveiling market insights:** analysing spending behaviour and identifying opportunities for growth
2. Market insights are valuable pieces of information that can help businesses understand their customers, competitors, and the overall market landscape. By analyzing spending behavior and identifying opportunities for growth, businesses can make informed decisions that lead to success.
3. Analyzing spending behavior
4. By analyzing spending behavior, businesses can gain a deeper understanding of their customers' needs, wants, and preferences. This information can be used to develop new products and services, improve existing offerings, and create more targeted marketing campaigns.
5. For example, a clothing retailer might analyze spending data to identify which products are most popular with different customer segments. This information could then be used to design new clothing lines, target specific promotions, and allocate inventory more effectively.
6. Identifying opportunities for growth
7. Market insights can also help businesses identify opportunities for growth. By understanding the current market landscape, businesses can identify underserved customer segments, emerging trends, and new markets to expand into.
8. For example, a technology company might analyze market data to identify new industries that are adopting its products. This information could then be used to develop new sales and marketing strategies to reach these new customers.
9. Overall advantages of unveiling market insights
10. Overall, unveiling market insights can provide businesses with a number of advantages, including:
11. **Improved decision-making:** Market insights can help businesses make more informed decisions about product development, marketing, and other key areas.
12. **Increased competitive advantage:** By understanding the market and their customers better than their competitors, businesses can gain a competitive advantage.

- 13.**Boosted growth:** Market insights can help businesses identify new opportunities for growth and expand their reach.
- 14.How to unveil market insights
- 15.There are a number of ways to unveil market insights, including:
- 16.**Market research:** Market research can be used to collect data about customers, competitors, and the overall market landscape. This data can then be analyzed to identify key trends and insights.
- 17.**Customer surveys:** Customer surveys can be used to collect direct feedback from customers about their needs, wants, and preferences. This feedback can then be used to develop new products and services, improve existing offerings, and create more targeted marketing campaigns.
- 18.**Competitive analysis:** Competitive analysis can be used to identify the strengths, weaknesses, and opportunities of competitors. This information can then be used to develop strategies to differentiate your business and gain a competitive advantage.
- 19.**Industry reports:** Industry reports can provide insights into the latest trends and developments in your industry. This information can be used to stay ahead of the curve and make informed decisions about the future of your business.
- 20.By unveiling market insights, businesses can gain a better understanding of their customers, competitors, and the overall market landscape. This information can then be used to make informed decisions that lead to success.

DISADVANTAGES

While there are many benefits to unveiling market insights, there are also some potential disadvantages, particularly when it comes to analyzing spending behavior and identifying opportunities for growth.

One disadvantage is that market insights can be expensive and time-consuming to gather. This is especially true for businesses that are new to market research or

that need to collect data from a large or diverse sample. Additionally, it is important to hire qualified market researchers and data analysts to ensure that the data is collected and analyzed accurately.

Another disadvantage is that market insights can be misinterpreted or misused. For example, if a business does not fully understand the data or the context in which it was collected, they may make decisions that are not in their best interests. Additionally, some businesses may use market insights to manipulate or exploit their customers.

Finally, market insights can be outdated or irrelevant. This is because consumer behavior and market trends can change rapidly. As a result, it is important for businesses to regularly update their market research and insights.

Here are some specific disadvantages of unveiling market insights related to analyzing spending behavior and identifying opportunities for growth:

1. Competitors may learn your trade secrets. If you reveal too much information about your customers' spending habits, your competitors may be able to use this information to gain an advantage. For example, if they know what products your customers are buying and how much they are spending, they may be able to offer lower prices or more attractive promotions.

2. Customers may feel their privacy is being invaded. Some consumers may be uncomfortable with the idea of businesses collecting and analyzing their spending data. If you reveal this information to the public, it could damage your reputation and lead to lost customers.

3. You may be tempted to make decisions based on incomplete or inaccurate data. Market research can be a valuable tool, but it is important to remember that it is not perfect. The data you collect may be biased or outdated, and it is important to carefully consider all of the factors involved before making any decisions.

Overall, it is important to weigh the pros and cons of unveiling market insights before making a decision. If you do decide to reveal this information, it is important to do so in a way that protects your customers' privacy and that does not give your competitors an unfair advantage.

Here are some tips for mitigating the disadvantages of unveiling market insights:

1. Only reveal the information that is absolutely necessary. You don't need to share every detail about your customers' spending habits. Instead, focus on revealing the information that will be most helpful to your customers and that will not give your competitors an unfair advantage.
2. Aggregate the data before revealing it. This means combining the data from multiple customers so that it is not possible to identify any individual customers.
3. Use the data to make informed decisions, but don't rely on it solely. Market research is a valuable tool, but it is important to consider all of the factors involved before making any decisions.
4. Be transparent about how you collect and use customer data. Let your customers know what kind of data you collect, how you use it, and who you share it with. This will help to build trust and loyalty with your customers.

APPLICATIONS

Unveiling market insights can be used to analyze spending behavior and identify opportunities for growth in a number of ways.

Analyzing spending behavior

Market insights can be used to understand how customers are spending their money, what factors influence their spending decisions, and where they are spending their money. This information can be used to develop more effective marketing and sales strategies, as well as to create products and services that better meet the needs of customers.

For example, a company that sells clothing could use market insights to understand which demographics are spending the most on clothing, what types of clothing they are buying, and where they are buying it from. This information could then be used

to develop targeted marketing campaigns, to open new stores in areas where there is a high demand for clothing, and to design and produce clothing that is more likely to appeal to target customers.

Identifying opportunities for growth

Market insights can also be used to identify new market opportunities and to develop strategies for expanding into new markets. For example, a company that sells coffee could use market insights to identify new countries where there is a growing demand for coffee. The company could then develop a strategy for expanding into these markets, such as by opening new stores or by partnering with local businesses.

Market insights can also be used to identify new ways to grow existing markets. For example, a company that sells smartphones could use market insights to identify new features and services that customers would be willing to pay for. The company could then develop these new features and services and market them to customers.

Overall, unveiling market insights can be a valuable tool for businesses of all sizes. By understanding how customers are spending their money and what factors influence their spending decisions, businesses can develop more effective marketing and sales strategies, create products and services that better meet the needs of customers, and identify new market opportunities.

Here are some specific examples of how companies have used market insights to analyze spending behavior and identify opportunities for growth:

1.**Netflix** uses market insights to understand what types of movies and TV shows its subscribers are watching. This information is used to develop new content and to recommend content to subscribers.

2.**Amazon** uses market insights to understand what products its customers are buying and what they are searching for. This information is used to develop new products, to improve the customer experience, and to target customers with relevant advertising.

3.Starbucks uses market insights to understand what types of coffee and food its customers are buying and what they are looking for in a coffee shop experience. This information is used to develop new products and services, to improve the customer experience, and to expand into new markets.

These are just a few examples of how companies can use market insights to analyze spending behavior and identify opportunities for growth. By using market insights effectively, businesses can make better decisions about their products, services, and marketing strategies.

CONCLUSION

Conclusion of unveiling market insights: Analysing spending behaviour and identifying opportunities for growth

By analyzing customer spending behavior, businesses can gain valuable insights into their target market and identify opportunities for growth. This analysis can be used to inform a variety of decisions, including product development, marketing strategy, and pricing.

Some of the key insights that can be gained from analyzing spending behavior include:

1.Popular products and services: By identifying the products and services that customers are spending the most money on, businesses can focus on developing and promoting these offerings.

2.Emerging trends: By tracking changes in spending patterns over time, businesses can identify emerging trends and develop new products and services to meet these needs.

3.Customer segments: By understanding the different segments of their customer base and their spending habits, businesses can tailor their marketing and sales strategies accordingly.

4.Pricing opportunities: By analyzing how customers are responding to different price points, businesses can identify opportunities to optimize their pricing strategy.

By leveraging these insights, businesses can make more informed decisions and position themselves for success in the marketplace.

Here are some specific examples of how businesses can use market insights to identify opportunities for growth:

1.A retailer might identify that customers are spending more money on organic food products. This insight could be used to develop a new line of organic products or to expand the selection of organic products that are already offered.

2.A software company might identify that businesses are increasingly investing in cloud-based solutions. This insight could be used to develop new cloud-based software products or to improve the existing cloud-based products that are offered.

3.A travel agency might identify that families are traveling more frequently than ever before. This insight could be used to develop new family-friendly travel packages or to offer discounts on family travel.

Overall, analyzing customer spending behavior is a powerful tool that businesses can use to gain valuable insights into their target market and identify opportunities for growth. By leveraging these insights, businesses can make more informed decisions and position themselves for success in the marketplace.

FUTURE SCOPE

The future scope of unveiling market insights by analyzing spending behavior and identifying opportunities for growth is very promising. This is due to a number of factors, including:

- 1.The increasing availability of data. The amount of data that is collected about consumer spending is growing exponentially. This data comes from a variety of sources, including credit card transactions, loyalty programs, and social media.
- 2.The rise of artificial intelligence (AI) and machine learning. AI and machine learning can be used to analyze this data to identify patterns and trends that would be difficult or impossible to spot manually.
- 3.The growing importance of customer experience. Businesses are increasingly realizing that customer experience is essential for success. By understanding how customers spend their money, businesses can develop products and services that better meet their needs.

Here are some specific ways in which businesses can use market insights to analyze spending behavior and identify opportunities for growth:

- 1.Identify customer segments. Market insights can be used to identify groups of customers with similar spending habits. This information can then be used to develop targeted marketing campaigns and product offerings.
- 2.Predict customer behavior. Market insights can be used to predict how customers are likely to behave in the future. This information can be used to make better decisions about inventory, pricing, and promotions.
- 3.Identify new markets. Market insights can be used to identify new markets for existing products and services. For example, a business that sells clothing might use market insights to identify new countries in which to expand its operations.

Overall, the future scope of unveiling market insights by analyzing spending behavior and identifying opportunities for growth is very bright. As businesses continue to invest in data analytics and AI, they will be able to gain a deeper understanding of their customers and make better decisions about their businesses.

Here are some specific examples of how businesses are using market insights to analyze spending behavior and identify opportunities for growth:

- 1.Retailers are using market insights to personalize the shopping experience for each customer. For example, Amazon uses market insights to recommend products to customers based on their past purchase history.

2. Financial services companies are using market insights to develop new products and services that meet the needs of their customers. For example, banks are using market insights to develop new mobile banking apps and credit card rewards programs.

3. Technology companies are using market insights to develop new features and products that appeal to their users. For example, Netflix uses market insights to recommend movies and TV shows to users based on their viewing history.

These are just a few examples of how businesses are using market insights to analyze spending behavior and identify opportunities for growth. As businesses continue to invest in data analytics and AI, we can expect to see even more innovative and effective ways to use market insights to drive growth.