Power BI Bootcamp

case study Microsoft Skateboard Store

v1

Introduction

Microsoft Skateboard Store, has hired SDG Group to create a dashboard in Power BI, which allows the analysis of your sales and returns with the ability to delve into your data and explore the factors with the greatest impact.

To do this, an Excel file has been shared with the relevant data for the object analyzes and that will act as data sources for this project.

The execution time of the project is restricted to one week, and will culminate with a presentation of the painting to an evaluation panel.

In the following slides you will find all the necessary information for the realization of the project.

Data Sources

Within the contents of the bootcamp you will find an Excel file called "Practical case 1 – Data sources". In it you will find all the data related to the company Microsoft Skateboard Store and that are relevant to this use case.

The content of the file is broken down into the following tabs:

- **Sales:** data referring to the company's sales registered with the detail of the product, store, status of the sale, transaction identifier, units, amount and date of the transaction.

- **Stores:** data related to the network of stores from which sales are made with details of the store identifier, name, type of store (external or internal) and its geolocation.

- **Products:** descriptive data of the company's product catalog with details of the name, identifier, category, category identifier, segment, segment identifier, price, product price range and a set of links to images (Image product, category image, color image, and segment image).

- **Issues & promotions:** data related to incidents and promotions applied to a sale. The identifier in this table shows the relationship to the corresponding sales transaction.

- **Segmentation:** descriptive data for each sale with details of the sale transaction identifier, gender, and age range.

Customer Requirements

The company Microsoft Skateboard Store has given us a set of analytical requirements for which we must ensure that the dashboard developed is responsive.

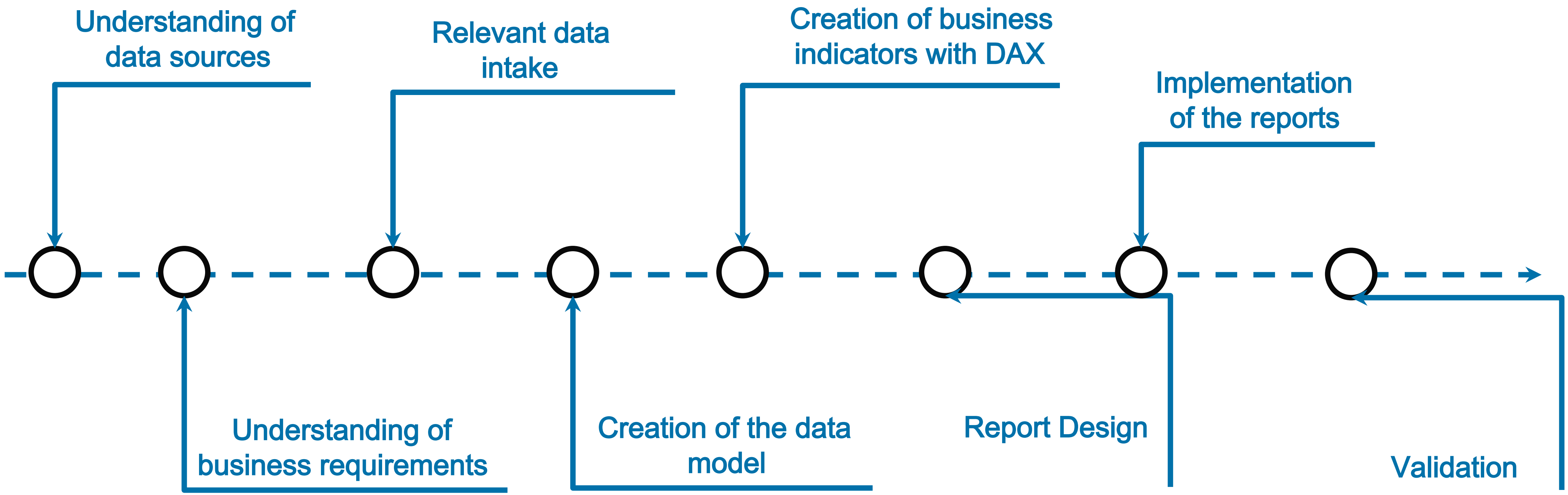
The list of requirements is listed below:

- Being able to assess sales by product, category, segment, store, customer age, and customer gender.
- Being able to evaluate sales incidents along the same axes as sales.
- Being able to discern sales with promotion.
- Being able to assess the evolution over time of sales and sales incidents.
- See the distribution of sales based on the price range.
- Being able to evaluate the indicators for a specific time range.
- Know the sales weight of each product, category and segment.
- Being able to cross the sales volumes per store with the number of incidents.
- Know the amount discounted in promotions.

Note: the Excel data sources cannot be modified, any operation on the data must be implemented in PowerBI

Metodología de trabajo

In order to focus on the development of the dashboard that is the object of this use case, we recommend that you structure your work in phases and ensure the achievement of each one of them. Below we make a proposal for the division of phases that we believe can serve as a guide:



SDG methodology

Introduction

Within the development of a dashboard it is very important to think about how we offer that data to business users and how that data tells us the story of business processes.

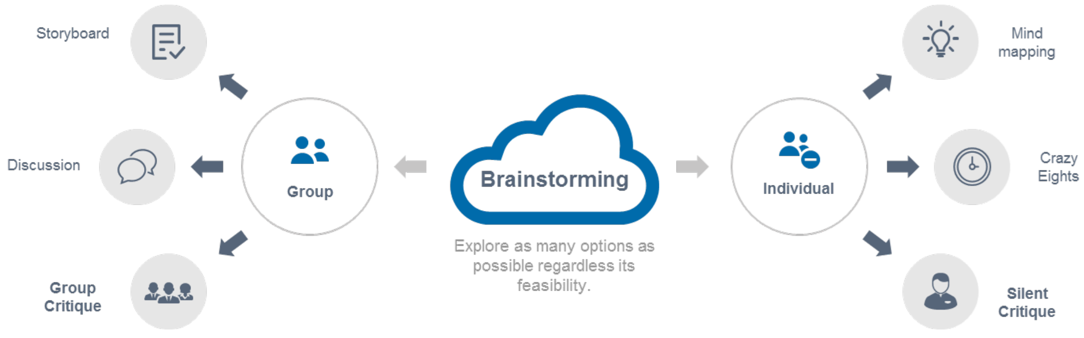
To this end, SDG has defined a design methodology that establishes a set of guidelines within the scope of the design of dashboard reports with the aim of maximizing the user experience.

In the following slides we attach a specific part of SDG's value proposition in terms of dashboard design. We recommend you to read the contents so that you can make the best possible designs in your deliverables.

SDG methodology

UX EXPERIENCE APPROACH TO ASSURE USER ACCEPTANCE

Problem-solving collaborative process with the end users based on visually exercises.



At this stage, we begin to introduce intuitive thinking into our **problem-solving process** so as to further refine the **project requirements**. Through creative thinking exercises and **collaborative** discourse we develop ideas to visually express your core message. Then, the stand-out ideas will be chosen for development.

At this stage we provide:

- **Diverge workshop.** Session along a multidisciplinary team to explore multiple ideas in order to solve the problems identified in the previous phase.
- **Converge workshop.** Session along a multidisciplinary team to select the most remarkable ideas generated in the previous session.
- **Analysis and revision of documentation.** Refinement of requirements based on the results obtained in the previous sessions.

UX EXPERIENCE APPROACH TO ASSURE USER ACCEPTANCE

Through prototypes and sketches the user can be closer to the end solution and proof the requirements.

At this stage, the user experience will be illustrated by creating a **site maps**, and several **prototypes** to sweat the details, ensuring that every element works to aid the communication goal of the project. Once the final design is ready, we proof and refine the **design**, **check**, **double-check**, and **proof** again. We work closely with all vendors to ensure that your finished product meets our (and your) standards of excellence.

At this stage we provide :

Site map. We illustrate the general structure of the site, the navigation tags and the desired functionality.

Sketches. Design sketches and interaction models will be generated based on the ideas generated in the previous stage.

Wireframes. Based on the results obtained in the previous sessions, wireframes will be created to represent in a more functional way the structure of the product; exploring the content architecture and the navigation of the most important pages.

Interactive prototype. Finally, an interactive prototype with applied graphics will be created to represent more visually the structure of the product (content architecture and navigation).

User testing. Prototypes will be tested with end-users and reviewed as necessary.

Stakeholder validation. Prototypes will be validated by interested parties and reviewed as necessary.

SDG methodology

Sales & Activity Reporting Solution is designed to be an application based in Power BI that will be **focus around the commercial process** exposed in the Business Design – Account Profiling, Activity, Execution, Time Registration, Performance.

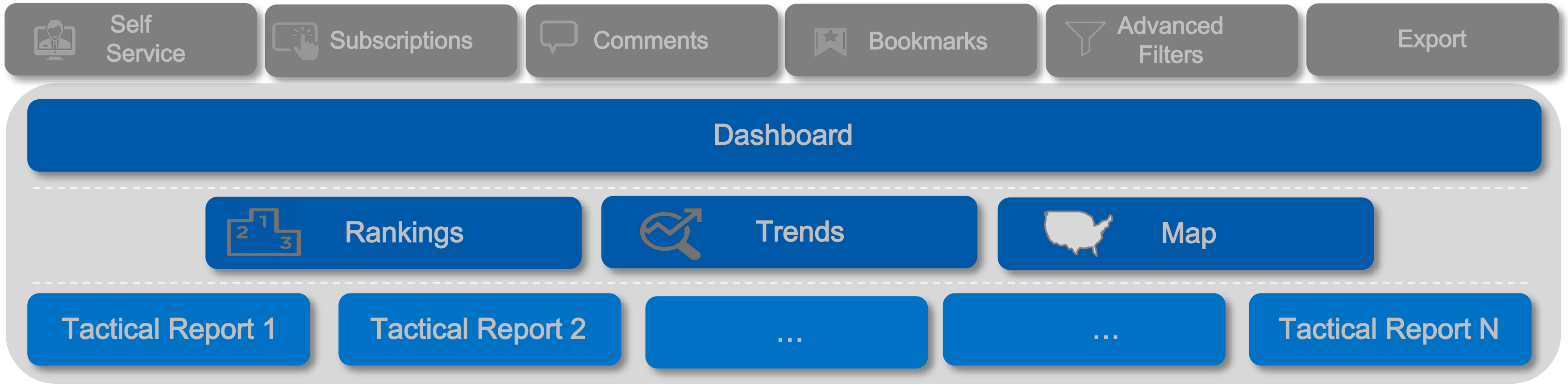
In order to get the most of any device some best practices will be applied to have same look and feel and navigation experience in laptops and tablets.

The **Application Design** will be structured in three layers:

- **Enablers:** Using Power BI functionality to assure a better experience in Self Service, Drilling Up/Down, Filtering, Default Selections and Persuading and Collaborating with analysis around Field Force Reporting Solution
- **General Views:** Strategic views that provide a more general insights that could use KPIs from all the commercial process. Dashboard, Rankings, Trends, Maps
- **Tactical Views:** Process oriented views, focus on the commercial process in Mylan - Account Profiling, Activity, Execution, Time Registration, Performance.

High Level Overview

- Simplify and reduce Sales and Activity Reporting business rules
- Great UX, focus on KPIs, rich interactive visuals
- Easy to use, implement and manage with faster time to deliver



SDG methodology

Proposal

Dashboard

- Main/Home Page in the Sales and activity Reporting Solution, is the first navigation layer
- Structured around the main KPIs from each of the parts of the commercial process: Account Profiling, Activity, Execution, Time Registration and Performance
- Shows current situation on main KPIs compared to objective and trends around it
- Provides direct access to any part of the dashboard, commercial process or trends, rankings, maps

Rankings

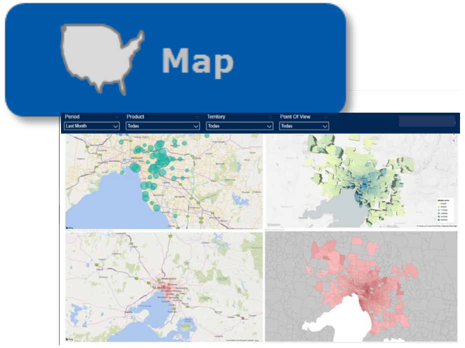
- Together with Trends and Map is a general view and it is transversal in the whole dashboard. It can be Accessed from any page
- Rankings is a view where selected KPIs by Mylan (Parametrised) are analysed at the same time by four dimensions in Parallel – Account, Geography, Territory and Product
- This view allows the user to discover movers or lagers in the data, finding insights and business trends. e.g When a product is selected the impact on the other dimensions is shown immediately
- Rankings provides the weight that each value has for each dimension

Trends

- Together with Rankings and Map is a general view and it is transversal in the whole dashboard. It can be Accessed from any page
- In the same way, like Rankings, Trends is a view where the same selected KPIs by Mylan (Parametrised) are analysed through the time
- This view allows to analyse if the company, product, territory is improving through the time and if the trend is positive

SDG methodology

Proposal

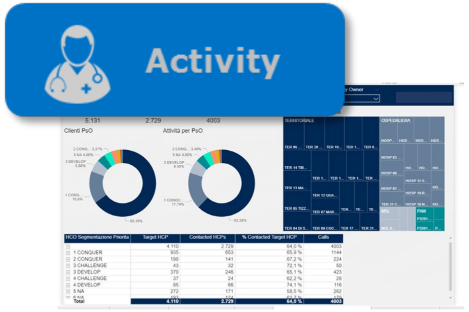


Map

- Together with Rankings and Trends is a general view and it is transversal in the whole dashboard. It can be Accessed from any page
- In the same way, like Rankings and Trends, Map is a view where the same selected KPIs by Mylan (Parametrised) are analysed using Maps

Account Profiling

- This tactical view provides a view on the Account, analysing data quality and main KPIs
- Segmentation, Customer trade class, Sub category, Specialty, COT, Target Universe
- It provide a direct link to the Account in the CRM
- It can be seen Subcategory code/COT inclusions and Specialty/COT exclusions
- Corporatized Affiliations/Grouping of Phy/Acct and Group Practice



Activity

- It is a tactical view part f the commercial process
- Provides a view on the customer activity, Call / Field Activity
- KPIs like Calls, Group Calls, E-Detail, Approved emails are shown in this screen

SDG methodology

Proposal

Execution

- Shows how the activity and action plans are being executed by the Field Force
- Tactical view, part of the commercial process
- Some KPIs are Contact rate, call frequency, CPA calculations/average calls on targets/non-targets by week
- Are analysed different Plan of Action for each sales cycle

Time Registration

- Time Registration is a tactical view that provides the Field Force productivity / Occupation
- It analysed Field time codes: Days In Field, Non In Field, Working Day, Coaching Day, Training Day, Vacations
- This view as a primary axis, the employee, it is important the nominal user

Performance

- The result we are looking for with the effort invested in the commercial process
- Covers performance achieved by each territory, showing Sales, Variance, Budget and Forecast
- Comparison Views by product/market/geography/time period and segment
- Markets defined, default market by sales force and Default measure by market
- Incentive Compensation Reports might be delivered in a separate application due to security reasons

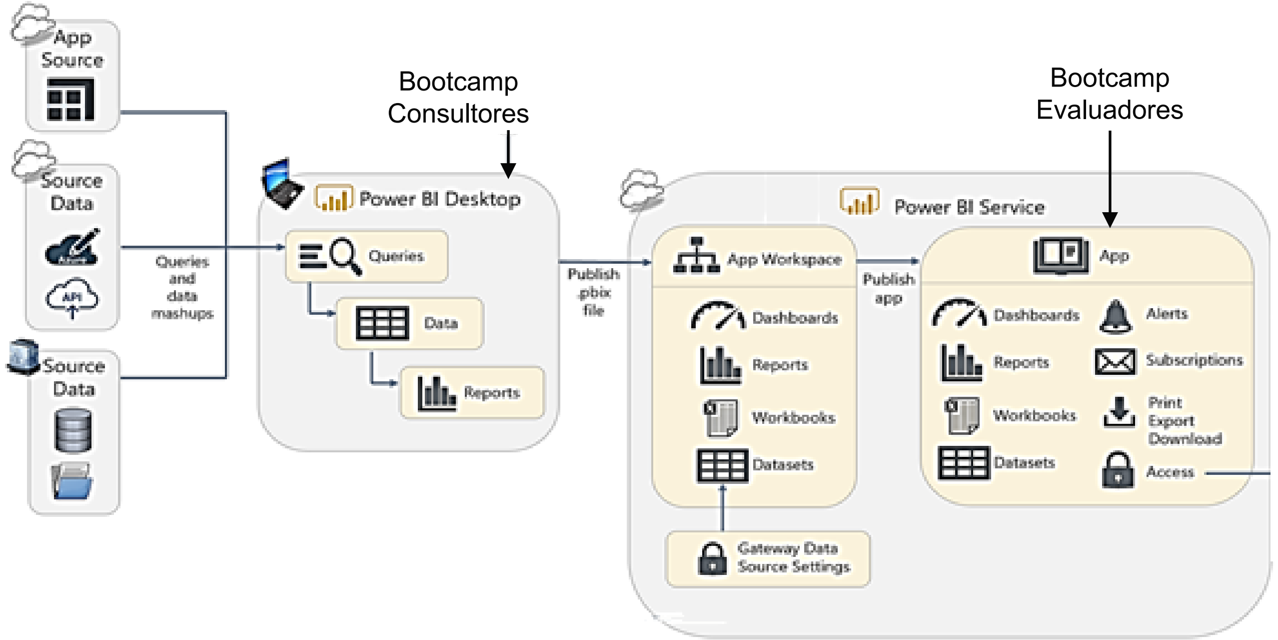
Delivery and evaluation

The delivery of the project must be done by publishing a Power BI application in the service, to which the Bootcamp testers must be given access (the Bootcamp testers will be communicated in the first session of the Bootcamp).

In the first session of the Bootcamp you will also be given a user within the Microsoft SDG environment on which you can activate a Power BI evaluation license to deliver. In turn, you will be given access to a WS on which you can publish the application to materialize said delivery.

On the last day of Bootcamp, you must make a presentation where the report made is explained to the evaluators and compliance with all the requested requirements is proven, as well as a satisfactory user experience in the usability of the report.

The image on the right shows a typical Power BI architecture and locates the data consumption channels and their consumers that are the object of this project.



Scoring

Scoring from 1 to 5 where 1 would be the most negative and 5 the most positive.

Model
DAX metrics
Requirements compliance
storytelling
UX
Design

Analytics-Driven Decisions.