

# TSWD Project

## PHASE 02: Creative Brief

Project Name: Rossmann Store Sales

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## Overview

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Rossmann operates over 3,000 drug stores in 7 European countries. Currently, Rossmann store managers are tasked with predicting their daily sales for up to six weeks in advance. Store sales are influenced by multiple factors, like location, promotions, competition, school and state holidays, seasonality, and locality.

Foreseeing sales is one of the key difficulties each business faces. It is significant for firms to anticipate client requests to offer the perfect item at the perfect time and at the opportune spot. The significance of this issue is underlined by the way that currently a billion counseling firms are available on the market trying to offer sales forecasting services to businesses of all sizes. Many of these firms rely on advanced data analytics techniques to analyse the data which aren't necessarily understandable to non-technical users.

One of the best methods to bridge the gap between these two roles of a business company is through a business dashboard. A dashboard can simplify complex data sets and provide users from all sectors with, at a glance awareness of the current performance.

In this project, I will be creating an analytical business dashboard visualizing the KPIs (key performance indicators) usually tracked by a business to assess various aspects of performance and the and the consequences of ML models, which were utilized to foresee the store sales of Rossmann Stores.

## Drivers

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Effective dashboard use can have a drastic impact on business performance. Dashboards keep everyone on the same page and highlight the trends of KPIs. It promotes data transparency.

It lets the business analysts strategize on what changes to make in production and marketing to increase their profits for long-term, it lets the managers know the current progress and decide on tactical, short objectives. It helps in decision making.

The best dashboards provide a dynamic experience. Rather than providing static information, it lets the users filter data, interact with charts to see changes over time. That implies you can get a lot or as meager detail on explicit measurements as you need.

In this project I aim to create a transparent, interactive dashboard that will give you an accurate depiction of the current sales and will help make business decisions faster and more efficiently.

## Audience

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Operational - Line of business managers, general workforce

Analytical - Executives, analysts

This dashboard will be designed using inverted pyramid design in mind, in order of diminishing significance: the most important and substantial information is at the top, followed by the significant details that help you understand the overview above them; and at the bottom you have general and background information, which will contain much more detail and allow the reader or viewer to dive deeper.

This will help the audiences from all sectors use the dashboard easily and not be overwhelmed.

In the era where nearly every product is data-driven, people trust you to create the best, most efficient product to make their work more productive. I would like to promote this sense of trustworthiness by making the dashboard as accurate and coherent as possible.

## Tone

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Dashboards are a data visualization tool that allow all users from all sectors to understand the analytics that matter to their business, department or project. It lets everybody participate and understand the analytics process by compiling data and visualizing trends and occurrences. The dashboards have an innate sense of user-friendliness.

In a world overwhelmed with data, providing clear information is one of the most difficult things to accomplish. Presenting only the most relevant and significant data on dashboards is essential—the more information we display, the harder it is for users to find what they need, or what they need to prioritise and this is the reason minimalist dashboards are priced.

In this data visualisation I would like to create a dashboard that is user friendly, containing data visualisations with clear neutral color schemes, with just enough detail in a clearly defined hierarchy.

## Message

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It can be frustrating when we don't have information at our fingertips. With recent times, the pressure to deliver and add value is now more than ever. IT professionals often face the challenge of pulling and manipulating data from various sources manually which can prove to be inefficient, suboptimal and tedious.

This dashboard aims to make this whole process a breeze. It will relay all the necessary data at one cursory glance.

This dashboard will give us monthly reports of Rossmann Stores chain. It will relay all the minute details like which store is performing better, but be flexible enough to let see the bigger picture too, like trendlines.

Using this dashboard the business analysts will know exactly where their business stands, and where they might be in the next few weeks, if the current conditions prevail.

## Details

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This dashboard is used to view the current status of the Rossmann Stores chain as well as the predictions on future Sales made by an Gradient boosted tree (Light GBM). The LGBM model used for the predictions has proven to have an accuracy of 99% .

### Visualisation formats (Tentative)

- Pie chart or Donut chart
- Area chart or line graph
- Stacked Bar chart
- Filled Polygon Map

All the data visualisation will be dynamic and interactive. Most of them will have parameter filtering options, to make the dashboard compact and effective.

### Format parameters (Tentative)

Some of the data visualisations will need additional formatting needs

- An additional geographical data field for store locations derived from an already present State data field in the dataset.
- Accurate representation of predicted values and current state of the Rossmann Stores chain.
- Many of the data visualisations will need additional calculated fields.

