## Data driven offer creation

## BAKERY & CO.

## Pilot



## 1.- Business problem and business goal

Bakery & Co. is a **national bakery** **company** that started as a family business twenty years ago in Madrid. Since last ten years the company has experienced a **large growth** with the opening more that **50 new stores** at a national level. Each store operates individually from each other and reports to the central offices in Madrid.

Bakery & Co. Wants to develop a **new data driven approach for managing the offers** that it applies in each store and had request a proposal for applying offers in each store based on the sells that each one has. The main offices of Bakery & Co. Are located in Madrid. From there they receive:

* Monthly incomes from each of the different stores
* Materials requests
* Incidents

At this moment each store responsible decide what offers to apply to each product/group of products and this information is difficult to be tracked from the central office of the company. Bakery & Co. Wants to establish a centralized revenue model and a centralize-managed offers model.

In order to achieve this, the company has started to install a centralize ERP system, and wants to stablish a centralize model based on sells information for the definition of different offers

The stores are managed by managers depending of its location and are separated in North (12) – Center (24) – South (14) and Mediterranean divisions (21). Each store has a store responsible. Bakery & Co. needs to centralize offer manage process, in order to increase the effect of these offers, the number of sells and to facilitate the logistics between its shops. Each shop operates individually, but there is a project aiming to centralize all stores in a single ERP.

We propose a three stage project in order to achieve the goal of apply a model to each store and a global model for the company. Based on our previous experience, usual effects of this approach offers the following ROI:

* Increase in sales around 10-30%
* Reduce in the logistics cost by 15%
* Increase the information available to manage the stores.

## **Stage 1 – Individual Bakery shop model (Pilot):**

## Stablish a pilot model in one bakery in Madrid.

## Obtain records of transactions in the new ERP model format.

## Create a model and monitorize it in order to apply it to.

## The data will be processed offline, one first model will be applied to historic data

## **Stage 2 – Implementation of the model:**

## Implementation of the model by geography.

## Analysis of the results.

## **Stage 3 – Centralized model:**

## Stablish an aggregate company model with each individual model.

## Stablish a second model, which Will include new data generated and which offers are stablished.

## Manage logistics and offers.

The goal of this document is to explain the results of the pilot, detail the work performed and set the basis for the following stages of the project in case Bakery & Co. is interested.

## 2.- Business understanding and input data

We have performed four meetings with company personnel previously to gather the data necessary for the project:

* **Central offices sales responsible**
* **Company CIO**
* **Center geography manager**
* **Shop responsible**

After performing the interviews, we have decided to establish a generic query based on the new ERP of the company for extracting the data that we need with the following format:

|  |  |
| --- | --- |
| **Field** | **Format** |
|  |  |
|  |  |
|  |  |
|  |  |

We have chosen this format because…

## 3.- Data pre-processing

Once the query was calculated, we have received the following dataset:

INSERT DATASET

We have applied the following analysis:

* Summary
* Average items per transaction
* Sales by date
* Sales by time
* Sales by weekday
* Most sold products

We have realized that…

## 4.- Algorithm application

After the first analysis, we have decided to apply a priori algorithm

Explicacion del a priori

In order to make the process replicable, we have created an app for performing the analysis

Explicacion de la app

Based on our interviews with company personnel and our analysis, we have decided to apply the algorithm to the following subsets

* Weekends
* Weekdays at lunch time
* All data,

## 5.- Algorithm results

Based on the results of the algorithm, we can conclude the following:

* Weekends
* Weekdays at lunch time
* All data,

All the results have been validated with company personnel and we have decided together the parameters to use.

## 6.- KPIs analysis

In order to perform a follow – up during the following months, we propose some KPIs that can be completed with the ones that the company could consider:

* Most sold products
* ….
* Nº de productos (tuplas) vendidos previo algoritmo / Nº de productos después oferta (<1)

## 7.- Next steps

The follow up will be done by scheduling a monthly meeting during the next three months in order to check KPIs