# **ERP Simulation Project**

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## **The Project:**

In this project, our team was a cereal company called ERP Meusli, located in Germany. Our job was to choose what products to produce and sell based on our manufacturing capabilities, supply and demand, and which markets we were targeting.

There were 4 rounds of "the game" each consisting of 20 days. Within these rounds, we had to procure materials, manufacture the products, and sell to the markets available.

The team had to make decisions such as what products we were going to produce, how many materials to order in, deciding how to pay off the initial bank loan, and choosing to upgrade our manufacturing facilities for a more optimal manufacturing process.

In the end, the goal was to be the team with the highest overall company valuation at the end of the four rounds.

#### **Product Design**













Nut si-ret 40% wheat 40% out 20% nut.

40% wheat 40% oat 20% bleeberry 1 box / 1 bag 40% wheat 40% cat 20% strawberry 1 box / 1 bag 40% wheat 40% cat 20% raisins 1 box / 1 bag Original 1 50% wheat 50% oat 1 box / 1 bag Mixed 55166 3536 min wheat 3576 min oat 3076 fruits & nuts\* 1 biox / 1 bag 1076 mat, 3% blademe.

#### Customers



## **Team Dynamics**

## Decision-Making Process

- Collaborative decisions made before and during each round
- Initial Strategy: focus on hypermarkets and grocery chain, produce only 1 kg packages

## Adaptations

- Shifted from strict roles to a flexible workflow to address urgent needs (e.g. stockouts, overproduction)
- Strong communication enabled quick responses and task completion

## Impact of SAP

- Real time data improved decision making
- Challenges: understanding fluctuations in company valuation and navigating extra steps for insights

## **Business Strategy**







Hypermarkets

**Grocery Chains** 

### Initial Strategy

Sell to only hypermarkets and grocery stores via exclusively 1kg boxes, slight investment in increasing our setup time, outsell other groups by paying close attention to market prices and leveraging our products pricing, invest in marketing for all 1kg Muesli whether in stock or not.

### Evolving Strategy

Heavy investments into reducing our setup time seemed to increase our company valuation. Also, as the game progressed, we did not invest in marketing for the 1kg cereals until they were in stock. Similarly, we kept our prices well above the average so that we would have a higher profit margin.

#### Data Used to Adjust

The market prices report, inventory report, and marketing expenses, data allowed us to adjust our strategies during the game, whether it was changing our prices, increasing/decreasing marketing, or creating more product due to low inventory.

#### Was it Successful?

Yes, overall, our strategy was successful. The strategy was ever evolving throughout the rounds, but we stuck to our original strategy of focusing our efforts on 1kg Muesli products only towards hypermarkets and grocery stores, while decreasing the set-up time. Overall, this helped us with our company valuation and product turnover. Our communication and data analysis with sales, market prices, marketing expenses, and inventory all allowed us to be successful and end up finishing in 2nd place in the class competition.

## **Process Execution**

### Rounds 1 and 2

- In Round 1, our team planned to produce 72,000 units of 1 kg Muesli over 3 days, estimating it would take 20 days.
- However, production was faster than expected, and by day 4 of Round 2, we ran out of stock to sell.
- We recognized the shortage too late and couldn't order materials in time, leading to stock-outs on days 4 and 5 of Round 2. This caused financial losses and a drop in company valuation, which took over 10 steps to recover.

### Company Valuation and Inventory for Rounds 1 and 2

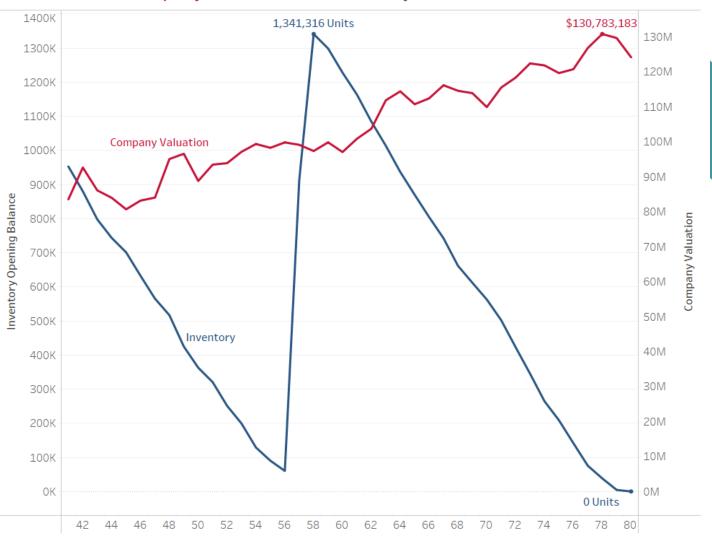


## **Process Execution**

## Rounds 3 and 4

- To address the issue, we began ordering materials for new production before running out of orders, preventing stock-outs in Round 3.
- In Round 4, we adjusted our strategy by producing 96,000 units of each product instead of 72,000. This reduced the need for restocking during the round and allowed us to focus on optimizing prices to fit the market.

### Company Valuation and Inventory for Rounds 3 and 4



## **Process Execution**

## End Game

- We ran out of products on the last day of the final round as a strategic move in the game. However, if the business had continued, this stock-out could have hurt our company valuation long-term.
- The ERP system was invaluable, allowing us to manage finances, inventory, and production in one place. It enabled our team to make real-time decisions as data became available, avoiding delays from inter-departmental communication.

## Company Valuation and Inventory

