

# A4E | Ordering Automation

Case Study – eBag, online FMCG retailer



**Ivan Alexandrov**

eBag CEO

## Quick Facts

Company:



Industry: FMCG retailer,  
entirely online

Size: 15000 households  
served / monthly

Web: <https://www.ebag.bg>

## Use Case

eBag rely on A4E to automate its goods procurement to ensure high stock availability, minimum waste and increased sales.

## Results

Stock Availability: +95%

Waste: 0,6%

eBag is a rapidly growing and entirely online-based FMCG retailer with more than 12 000 SKUs available in stock.

Founded in 2015, eBag is a current leader within the online channel of FMCG retail in Bulgaria. The company operates a warehouse facility of its own to serve the grocery needs of more than 15 000 households every month. Due to the rapid business growth and the aim to serve its customers with fresh goods including but not limited to meat and fruits and vegetables, eBag needed a solution addressing the following issues:

1. Rapid business growth as of 100% per year creating ever-changing environment.
2. High stock availability that keeps consumers served and returning.
3. Food waste reduction to fulfill the company's social responsibility goals.

eBag needed to create an automated process where the category buyers are not involved in daily planning and ordering on an SKU level.

## The Solution

The A4Everyone system automates sales forecasting and stock ordering processes, taking into account various factors like promotional activities, historic sales, inventory levels, weather forecast, forthcoming holidays, delivery time while maintaining high stock availability and minimum spoilage.

A4Retail uses proprietary algorithms based on iterative machine learning and diverse data sources to solve the demand forecast and order strategy optimization problems.

## The Business Goals

After careful evaluation of the existing business data and examination of the business rules based on the current processes, a range of KPIs was set as follow:

- Availability over 95%.
- Waste under 0,6%.
- Optimization of the inventory turnover.

## Technical implementation

The Retail Ordering Automation solution delivered to eBag is AI-as-a-Service, utilizing historical and newly generated sales data via API. Artificial Intelligence and Machine Learning algorithms evaluate and forecast the consumer demand of more than 12 000 SKUs taking to account multiple variables like but not limited to:

- delivery time & schedule
- SKU shelf life
- promotions
- seasonality
- previous sales
- weather impact

The A4Everyone solution is embedded in the EBAG ERP system to allow the front end to deliver projected quantities by SKU and automatically to place orders to suppliers.

## The Outcome

A4Retail is integrated within the EBAG ERP system delivering complete automation of the ordering & purchasing processes resulting in:

- 96,12% availability of 12000 plus SKUs
- Waste limited to 0,57%
- 168% yearly revenue growth

## The Benefits

The solution managing the supply-demand processes in a rapidly growing FMCG retail led to the following key benefits:

- Achieved automation, fulfilling the company strategy
- Waste limitation positively impacting:
  - Financial performance
  - Corporate social responsibility

- System successfully coping with significant growth better and faster than dedicated buyers
- Brief adaptation to the COVID19 business challenges
- Continuously improving system performance due to constant algorithms fine-tuning

## The Feedback

*"The solution of A4Everyone contributed to stock availability augmentation as well to something equally important – human capital and processes optimization. I would definitely recommend you."*

Ivan Alexandrov, EBAG CEO



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A4E is an artificial intelligence as-a-service (AI aaS) platform for hosting and deploying proprietary and third party data science models.

From coffee shops, through restaurants to wholesalers, A4E's vertical-tailored app is a strategic tool in sales forecasting, powered with a customizable reporting. Our on-demand **analytical framework** is tuned to the business specifics of the client.

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