

## 1. *What metrics/KPI's will you measure for Food Rocket's operations?*

There are 4 main parties in Operations of FoodRocket:

1. Category managers – along with ordering and stocking the warehouse, I suppose they also handle budget on goods purchasing, work with suppliers and search for new ones. So the KPIs could be:
  - To keep on budget – a measure of financial performance for the manager.
  - Avg % of product markup (difference between product cost and price sold) - can motivate to find best prices\cheaper suppliers or optimize logistics.
  - % of SKUs not sold from all SKUs for the reporting period (e.g. month or quartal) – can indirectly suggest under performance in choosing the SKU or indicate some sort of change in e.g. customer behavior.
  - % of wasted SKU – to track possible fraud and also indirectly measure performance in SKU choosing.
2. Pickers:
  - Picking Time KPI – company approved time range for picking order.
  - On-time release - % of orders transferred to riders within KPI on order picking.
  - Picking accuracy = % of orders without mistakes from all orders of this picker, measured real-time.
  - Avg picking time per hour/day
  - Total amount of picked orders per hour/day
3. Riders:
  - Delivery time KPI – company approved time range for order delivery.
  - On-time delivery - % of orders delivered within KPI
  - Avg delivery time per hour/day
  - Total amount of delivered orders per hour/day
4. Customer service:
  - Regular contact center metrics: Service level, % of abandoned customer calls\messages, avg speed of answer time, maybe % of FCR.
  - Avg handling time for an issue.
  - % of unresolved issues from total issues.

I can also suggest some group KPIs/metrics:

1. Problems rate = % of customer contacts regarding problems with their order. This could be a group KPI for category managers, pickers and riders (as well as be more granular if needed).
2. Total monetary loss from order issues (refunds, coupons etc.) – also group KPI for category managers, pickers, riders.
3. Product availability accuracy – does the documented amount of products equals the real amount in the warehouse? This can be applied to category managers and/or pickers.
4. Customer satisfaction with the order (e.g. CSAT or NPS) – can be applied to all Operations

However, this is just a suggestion, to finish this task I would talk to business and involved parties to choose the right performance measures.

2. Design a functional operations dashboard that you will create for the leadership team.

Same as mentioned before, it would be a great idea to interview the business customers of dashboard to better grasp their needs, however I suppose leadership team is interested in more aggregated data and overall view on the operations, than individual level, so I can suggest for the dashboard:

- Facts for the period grouped by warehouses:
  - Total # of orders,
  - Total revenue,
  - Total expenses,
  - Avg pick time,
  - Avg picking accuracy (from suggested KPIs above),
  - Avg delivery time,
  - On-time deliveries (from suggested KPIs above)
  - Total product in stock,
  - Customer satisfaction rate
  - top 10 best selling products
- Time series:
  - orders per month/week + forecast

Also I would add an ability drill down/up to more granular level (e.g. order statuses: open, picked, delivered).

### 3. In your opinion, what do you think are the main Costs of Food Rocket's operations? What will your approach be to track and optimize these costs?

I think the main costs of operations are, assuming you're purchasing all products:

1. products,
2. employees salaries and taxes,
3. warehouse rent, utilities costs
4. e-bikes, uniforms, thermal bags for riders - rent\purchase and maintenance
5. mistakes in orders, wasted products, fraud

To optimize these costs, I'd start with points 1, 4, and 5, first understanding how everything's working now (e.g. interviewing process owners as subject experts). Next researching these points and looking for patterns in data, stating hypotheses and checking them, communicating the findings to the interested parties.