

Specification of business processes

1. Business goals of the organization

“Kernel” is a network of kindergartens, that are focused on giving proper care for children of parents in need. Kernel’s main vision is standardized and optimized childcare based on location, facility and specific child needs. As for any other company profit is important, but in this case the company wants to focus on optimizing their resources. CEO’s main idea is to have a clear insight, which locations are most wanted and what programs based on children characteristics (age and so on) should be further expanded. For this case he wants to analyze the prices regarding facilities and the programs used in their care. CEO wants to monitor the metrics of demand of those cases.

The two main goals as metrics for this business process are:

Location and program optimization: The CEO wants to have a clear insight into which locations and programs are in high demand, and which ones are underutilized. One metric to measure this could be the utilization rate of each location and program, which would show how effectively the resources are being used. This metric could be calculated by dividing the number of children enrolled in a location or program by the maximum capacity of that location or program. **The CEO wants to increase utilization rate from 87% to 93%, so a 5% increase in utilization rate.**

Cost optimization: The CEO wants to analyze the prices regarding facilities and the programs used in their care, and monitor the metrics of demand of those cases. One metric to measure this could be the cost per child for each location and program. This metric would show how much it costs to provide care for each child in each location and program, and could be used to identify opportunities for cost savings or to optimize the pricing of the services offered. **Based on that, CEO wants to have a 3% increase in revenues.**

2. Business processes

Child Recruitment Process

a). A general description of the business process and a description of the performance metrics generated by this process, possible current analytical problems.

The child recruitment process for the network of kindergartens involves several steps. First, parents or guardians contact the kindergarten to inquire about enrolment. Then, they are provided with information about the kindergarten and the enrolment process, including available programs, tuition fees, and required documents. If interested, the parents or guardians are invited to tour the kindergarten facilities and meet with staff members to ask any questions they may have. After the tour, the parents or guardians can submit an enrolment application, which includes personal information about the child and the family, as well as the desired start date and program. The application is then reviewed, and if accepted, the parents or guardians are notified of the enrolment and required to pay the enrolment fees.

Performance metrics generated by this process may include the number of inquiries received, the number of applications received, the acceptance rate, and the enrolment rate. Cost per child of each program in each kindergarten location/district and revenue generated by each program. Analytical

problems may include tracking the effectiveness of different marketing and outreach strategies, identifying reasons for low enrolment rates or high rejection rates, and evaluating the impact of different factors (e.g., location, program offerings) on enrolment.

b). Typical questions

- What is the average recruitment fee for each location, taking into account fees for children age?
- Which location has the biggest income?
- Are there any locations where the recruitment fees are significantly higher or lower than the average?
- How does the number of applicants per location relate to the recruitment fees?
- Are there any correlations between the recruitment fees and other variables in the dataset, such as the location size or the number of employees?
- What is the average price admission for each age group?
- What is the average price of admission for time spent in the facility across locations?
- Are there any age groups or time spent in the facility that have significantly higher or lower prices of admission?
- How does the price of admission vary based on other variables in the dataset, such as the location or the number of employees?
- Which location has the highest income within age groups?
- How does the price admission for each age group compare to the national average for similar facilities?
- How much does the price admission differ between full-time and part-time enrolment?
- What is the ratio of children to teachers in each kindergarten location/district, and how does this vary by program?
- How many applications were received for each kindergarten location/district, and what percentage of these applications were accepted?
- What is the cost per child of each program in each kindergarten location/district, and how does this compare to revenue generated by each program?

c). Data

Data for the child recruitment process may include:

- Number of children enrolled in each kindergarten location/district
- Program enrollment data by kindergarten location/district
- Enrollment data for each kindergarten by year
- Age data of children enrolled in each kindergarten location/district by program
- Ratio of children to teachers in each kindergarten location/district by program
- Number of applications received for each kindergarten location/district and percentage accepted
- Cost per child of each program in each kindergarten location/district and revenue generated by each program.

Such data would mainly come from a relational database of facilities with their individual characteristics, and CEO's spreadsheet that covers employment and programmes specification with individual data.

Employees Recruitment Process

a). A general description of the business process and a description of the performance metrics generated by this process, possible current analytical problems.

Recruiting employees process is an activity meant to organize information about an arrival of new workers.

The measures generated in the process are employee: postal code, address, phone number, position, salary, expected salary, facility where they work, date since they work, birthdate, vacation and absences, reference list, education.

Employees recruitment process is as follows. Firstly, the CEO determines what is the company's need and how much budget can they spare. Then the announcement about job availability is published on OLX and LinkedIn account. Next, the volunteers' send their resumes through mail. If a resume gives a clue that the candidate is viable for the job they are invited for an interview. After the interview the references mentioned by potential employee are verified. The information about them is then inserted into the CEOs excel sheet. After a series of interviews an offer is being made to the most capable recruit. If they agree, the information about salary and start of work date is inserted to the excel sheet.

b). Typical questions

- How much money earns a specific employee?
- How much money is spent for salaries in general?
- Which facilities generate the greatest costs? (Salary-wise)
- How many employees are recruited in a given facility?
- How many employees are recruited in a given facility on a given position?
- What is the average age of employees on a given position?
- What salary is expected to be satisfactory for a given group of employees?
- How education affects expected salary?
- How domicile affects education level and competence?

c). Data

All data regarding employed people is extracted from the CEOs excel sheet.