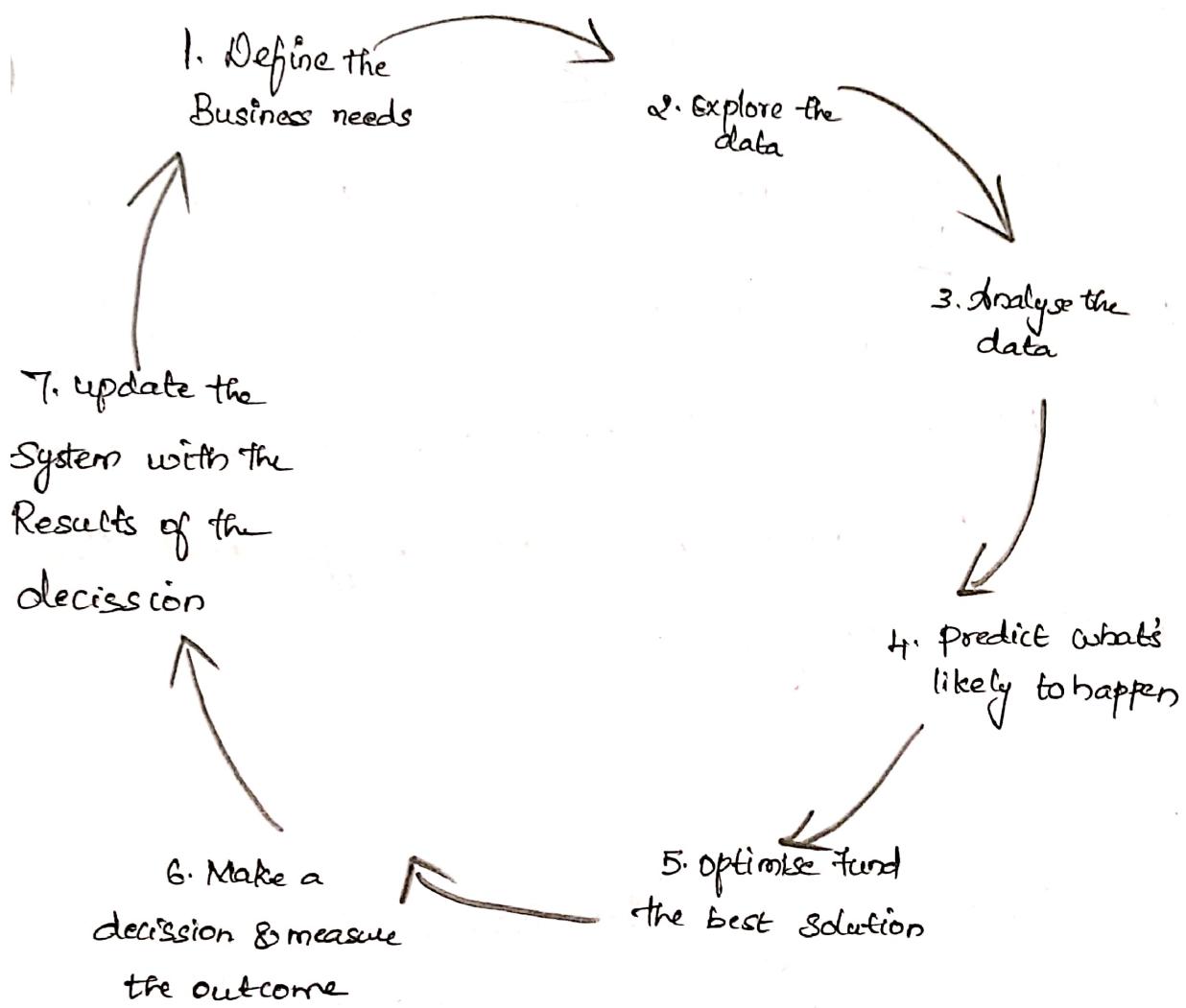


3. PROCESS OF BUSINESS ANALYTICS



STEP 1: Defining the Business Needs

→ The first stage in the business

analytics process involves understanding what the business would like to improve or fix the problem it wants solved.

→ Relevant data needed to solve these business goals are decided upon by the business stakeholders, business users with the domain knowledge and the business analyst.

Step 2: Explore the Data

This stage involves cleaning the data, making computations for missing data, removing outliers and transforming combinations of variables to form new variables.

→ The removal of outliers from the

~~database~~^{set} is important task as outliers often affect the accuracy of the model if they are allowed to remain in data set

→ Once the data has been cleaned, the analyst will try to make better sense of the data.

Step 3: Analyse the data

At this stage, using statistical analysis methods such as correlation analysis and hypothesis testing, the analyst will find all factors that are related to target variable

Step 4: Predict what is likely to happen:

Business analytics is about being

Proactive in decision making. At this stage, the analyst will model the data using predictive techniques that include decision trees, neural networks and logistic regression.

→ The analyst will then compare the predictive models are run and the best performing models selected based on model accuracy and outcomes.

Step 5: Optimise (Find the Best solution)

At this stage the analyst will apply the predictive model coefficients and outcomes to run "what-if" scenarios using targets set by managers to determine best solution.

Step 6: Make a decision and measure the outcome

The analyst will then make decisions and take action based on the derived insights from the model and the organisational goals. An appropriate period of time after this action has been taken; the outcome of the action is measured.

Step 7: Update the System with the results of the decision.

Finally the results of the decision and action and the new insights derived from the model are recorded and updated into the database.