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Final Project - BOCR

The coronavirus has impacted every single one of us in some way whether its one of us, or a family member, actually contracting the virus, or having to adjust to a new way of living and working from home, or as a business owner/leader having to make tough decisions as to how to keep the company running through these tough times. Businesses all over the globe have been faced with many important/tough decisions over the past few months and one that comes to mind and one that I have witnessed first hand in my current place of work is whether or not to lay off a number of employees in order to reduce costs and keep the company running. This decision will be analyzed using the BOCR technique. A detailed report presenting the decision, alternatives, strategic criteria, a short background, and the model set up is presented below. We will then go through a full in-depth analysis using the Super Decisions software and analyze the results of the decision to be made and the validity of these results.

Decision/Goal

Decide whether or not to lay off some employees due to the coronavirus pandemic.

Alternatives

1. ***Lay off 50% of employees*** – Reduce the workforce therefore reducing cost to keep profitability up.
2. ***Keep existing workforce and hope for economic upturn –*** Keep the existing workforce and therefore not reduce cost but keep capability up.

Strategic Criteria

1. ***Profitability*** – In order for a company to be successful it needs to be profitable.
2. ***Quality of Work*** – The quality of work produced is important in keeping current clients and attracting new ones.
3. ***Company Image*** – Clients tend to choose companies that have a good image and that they can trust
4. ***Company Growth*** – Companies want to continue to foster growth in order to continue revenue growth.

Control Criteria

Benefits

1. **Economic/Financial**
    a. **Operational**
        i. **Payroll**
        ii. **Insurance**
        iii. **Net Profit**
    b. **Employee**
        i. **Salary**
        ii. **Benefits**
2. **Organizational**
    a. **Company Structure**
        i. **Management**
        ii. **HR**
    b. **Employee**

i. Increased Workload
ii. Employee Growth

Opportunities

1. Economic/Financial
    a. Operations
        i. Budget
        ii. Financial Control
    b. Employee
        i. Wage Raises
        ii. Benefit Increases
2. Organizational
    a. Operations
        i. Management
        ii. New Employees
    b. Employee
        i. Advancement Opportunities
        ii. New/Additional Work

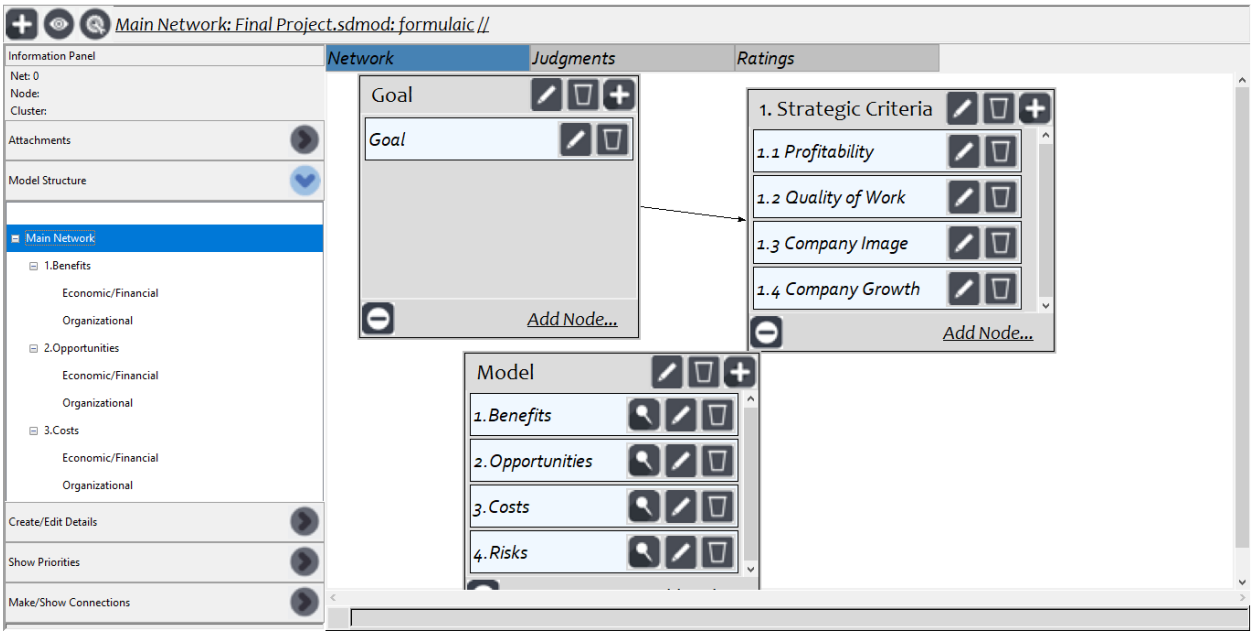
Costs

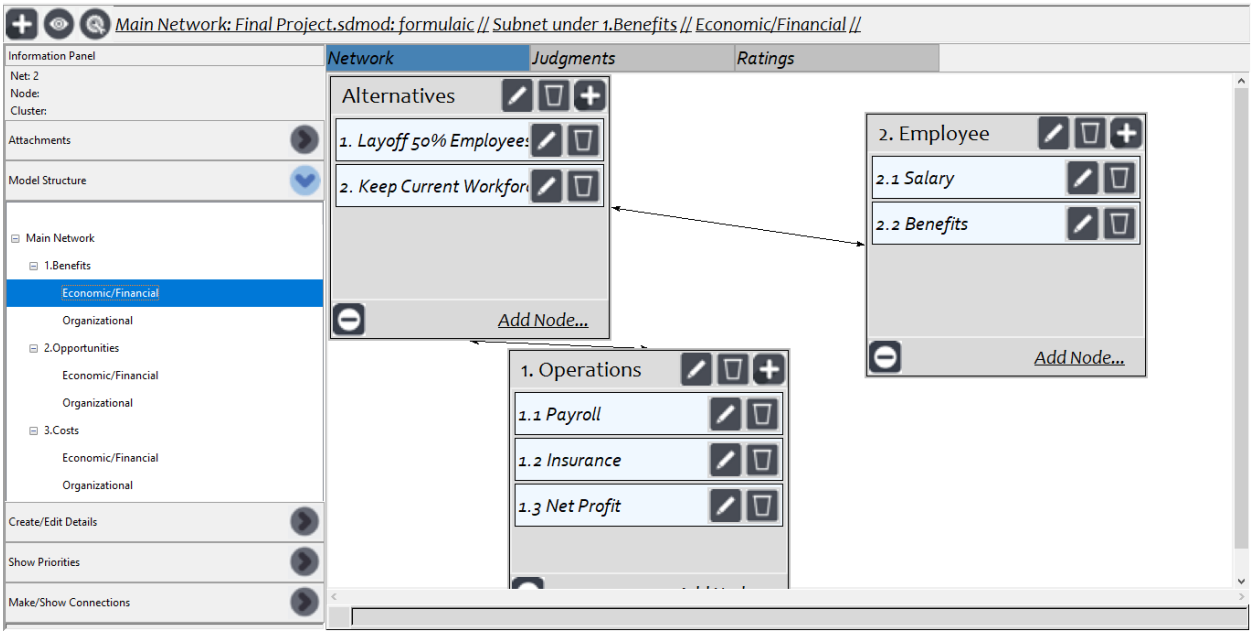
1. Economic/Financial
    a. Operations
        i. Severance and Benefits
    b. Employee
        i. Training
2. Organizational
    a. Operations
        i. Restructuring
    b. Employee
        i. Productivity
        ii. Capability

Risks

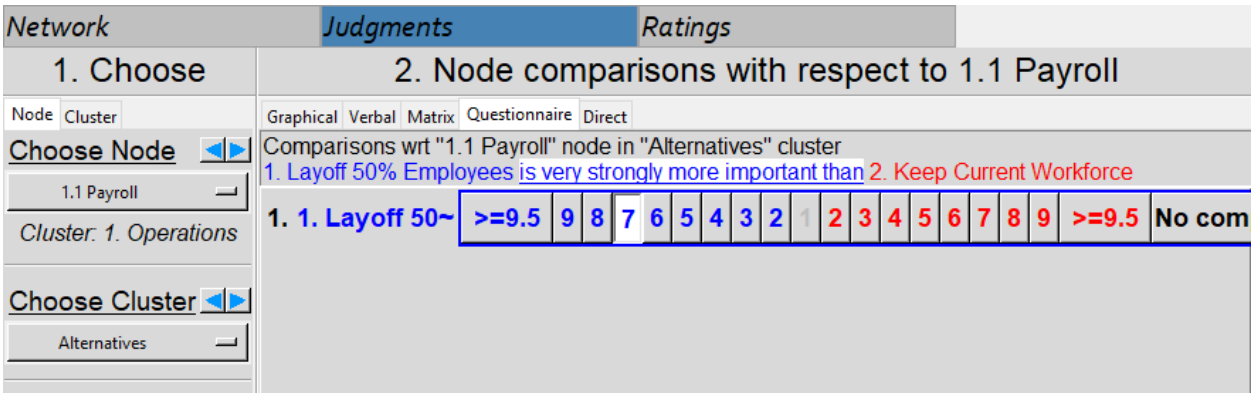
1. Economic/Financial
    a. Operations
        i. Training Costs
        ii. Marketing Costs
        iii. Operational/Restructuring Costs
2. Organizational
    a. Employee
        i. Productivity
        ii. Capability
3. Social
    a. Operations
        i. Image
        ii. Network

An ANP model will now be used because we want to see how each alternative affects/relates or provides for each factor. The below images show examples of the model setup in Super Decisions. They show the macro view of the entire model along with an example of a subnetwork.

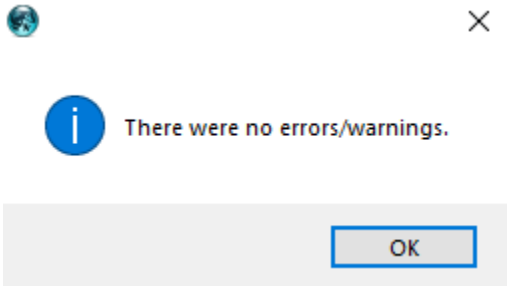




After the model was setup (all connections were made) and all high level and low level networks were completed we then prioritize the alternatives and perform pairwise comparisons rating each criteria and alternative based on the four control criteria i.e which alternative/factor provides the most benefit, which alternative/factor provides the most/least opportunity, which alternative contains the most cost, and which alternative presents the biggest/least risks. Below shows an example of the pairwise comparisons that were performed. All pairwise comparisons were evaluated as to stay under 10% inconsistency.

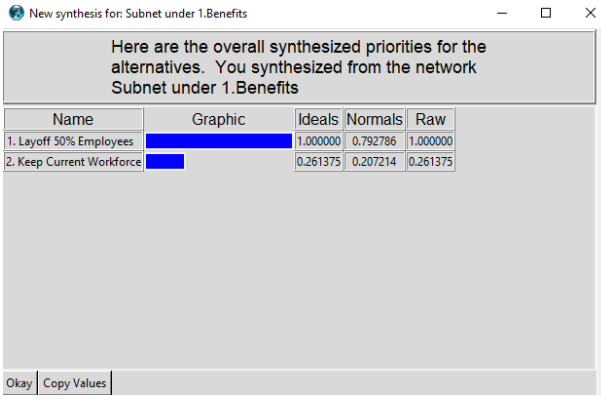


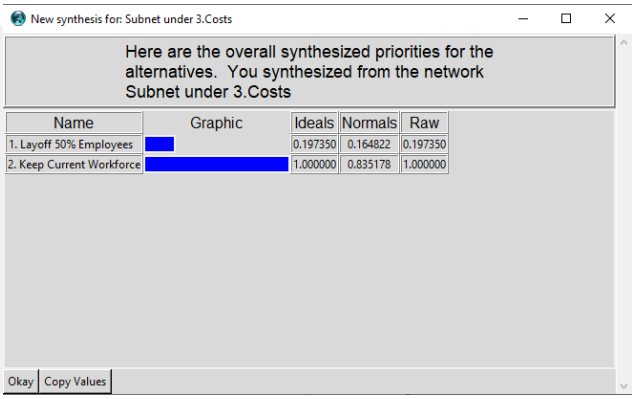
Once all pairwise comparisons were completed, I then ran a sanity check in order to make sure there were no outstanding issues.

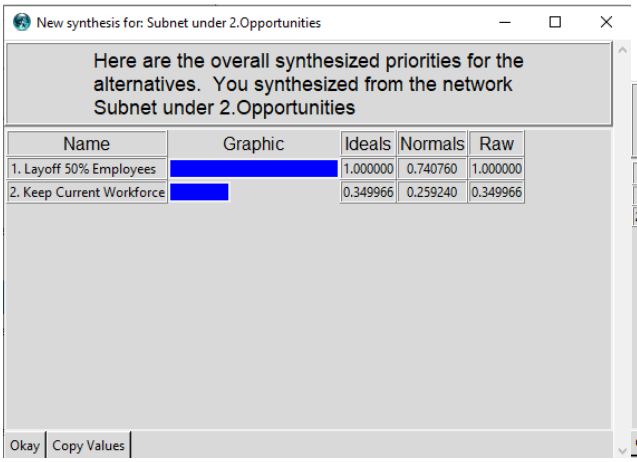


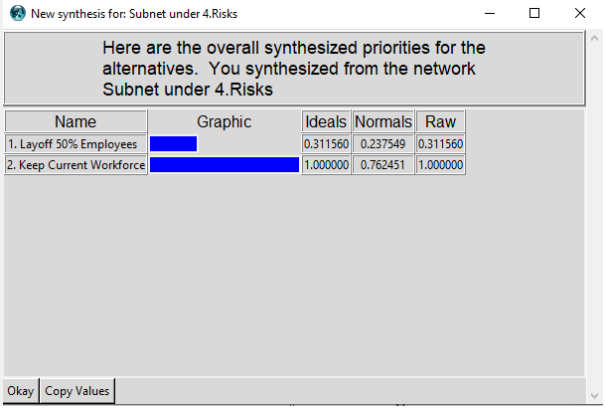
After this was completed the model was synthesized at each of the model criteria: Benefits, Opportunities, Costs, and Risks. The results can be seen below. In analyzing these numbers, we can see that Laying off 50% of the employees results in the greatest Benefits and Opportunities and also comes

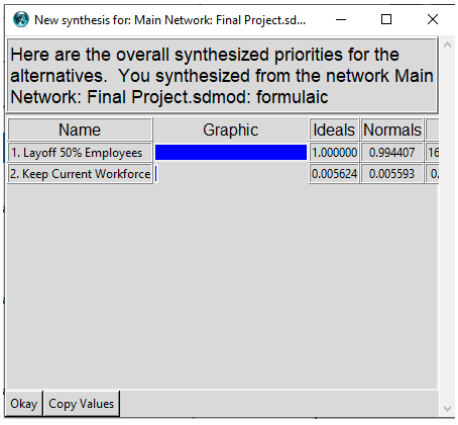
with the lowest Cost and Risk. The overall results show that laying off employees is the route/decision of choice by a wide margin.



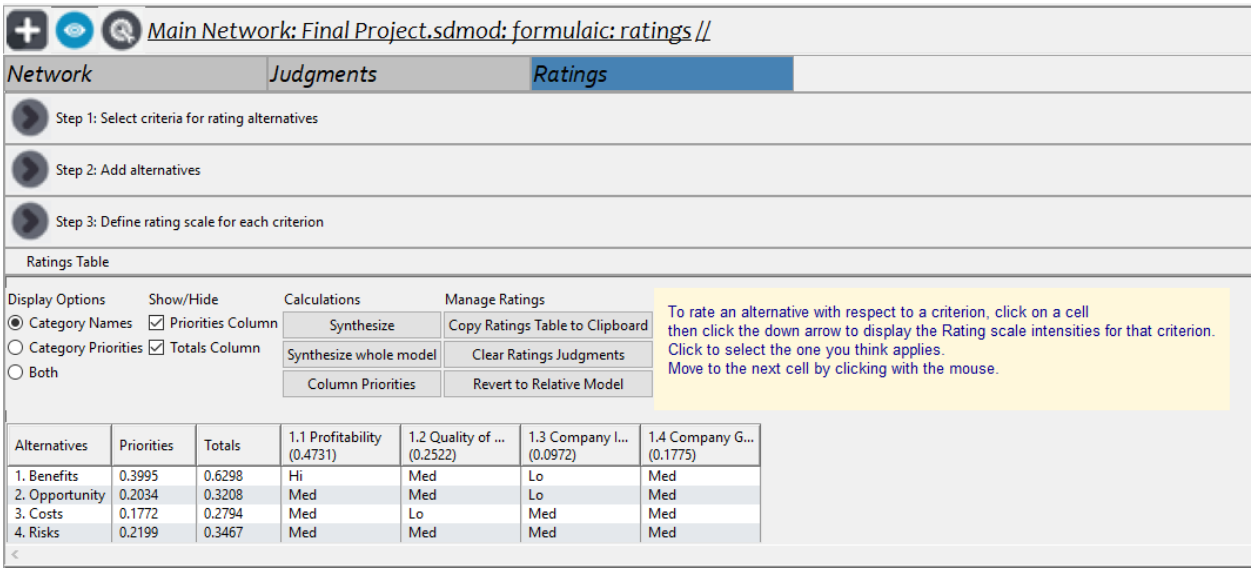


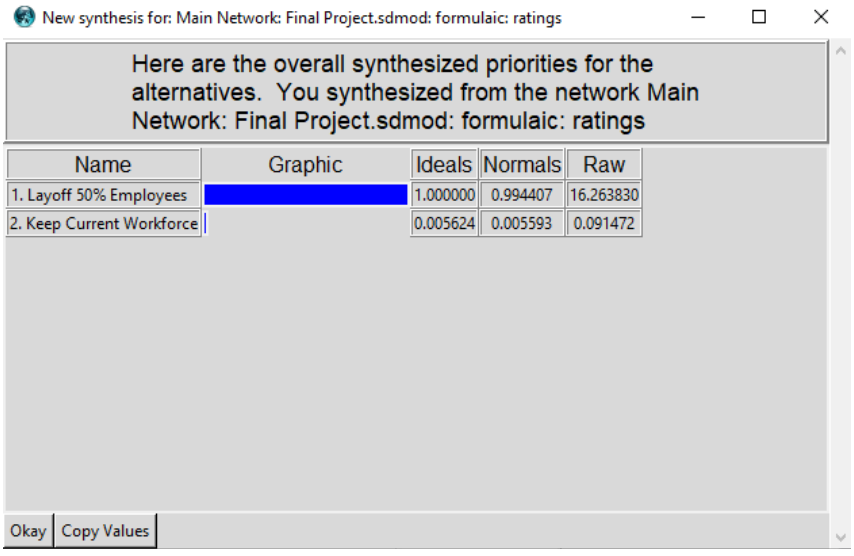




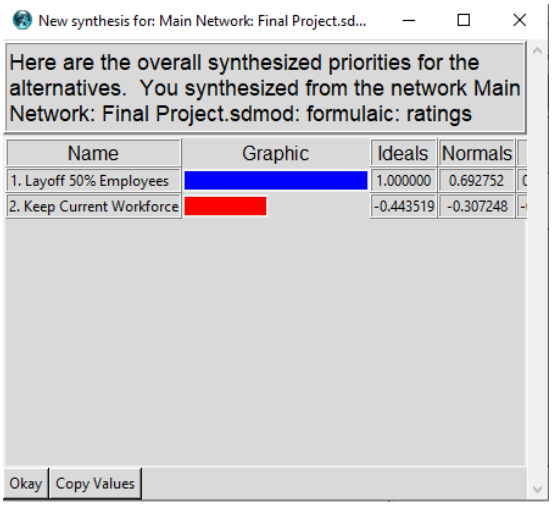


We then take the Alternative with the highest priority for each criterion and apply a rating table to it. In order to do so we go to the ratings page in Super Decisions. In selecting the criteria for rating alternatives, we select our four strategic criteria. Once this is done, we add the alternatives (in this case Benefits, Opportunities, Cost, and Risk). We next select a ratings table for each criterion, and we evaluate the alternative with the highest priority at each of these criteria (i.e. just how much benefit does it give? or just how costly is it on a ratings scale?) Once this was entered, we then synthesize the whole model using the multiplicative formulas from the design drop down in order to get our short-term results/selection.

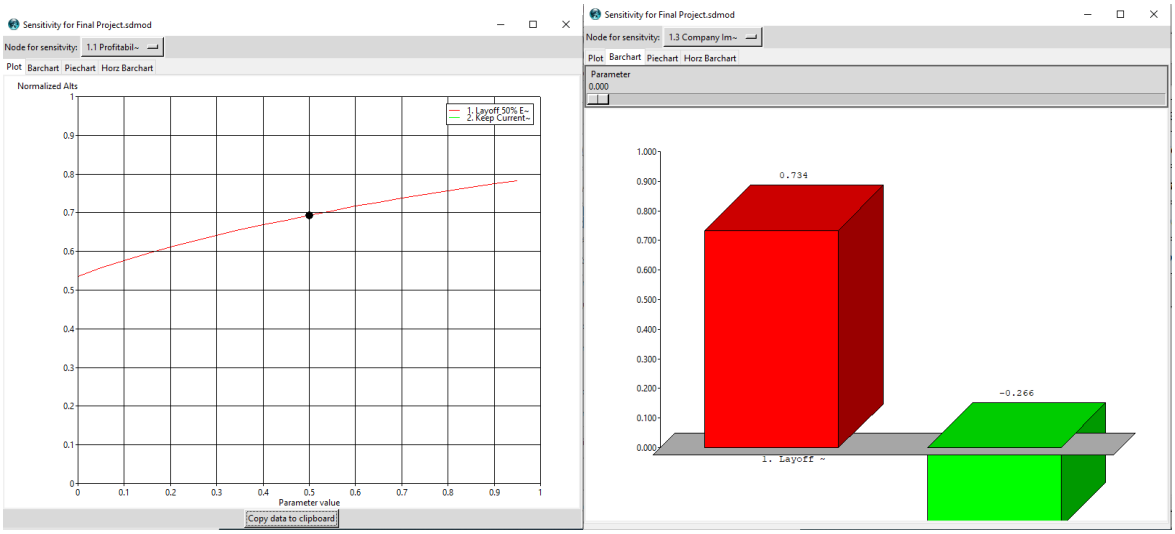




We lastly run the model again but using the additive (negative) formulas in order to get the long-term decision/priorities. The results can be seen below.



Once the model was completed and ran, we then perform an ANP sensitivity analysis as the higher-level network is indeed an ANP model. An example of the results can be seen below. In looking at these results we see that no matter how the variables are changed the alternative of choice will be to layoff employees. Although this is likely the best choice in most cases, as it shows here, it seems that the model is not the best. Pairwise comparisons need to be analyzed for incorrectness and possibly the lower level networks will need to be tweaked.



Results/Analysis/Recommendations

As we can see from the model, we should choose to Layoff 50% of the employees. Although we developed a solution to the decision, it is evident that the model needs to be adjusted. We can see that the margin between Laying off employees and not is very wide which should not be the case. We can also see that there is a negative value or priority for the long term in the Keeping current employee case. In retrospect different sub criteria should have been chosen and pairwise comparisons should be adjusted to better the model. If I had more time this model would have been adjusted to show more valid/realistic results.