

**Problem Chosen**

**CEF**

**2023**

**MCM/ICM  
Summary Sheet**

**Team Control Number**

**000000**

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**OUR TITLE**

**Summary**

**Keywords:**

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# 1 Introduction

## 1.1 Background

## 1.2 Restatement of the Problem

problem 1 text

## 1.3 Our Work



Here's our work:

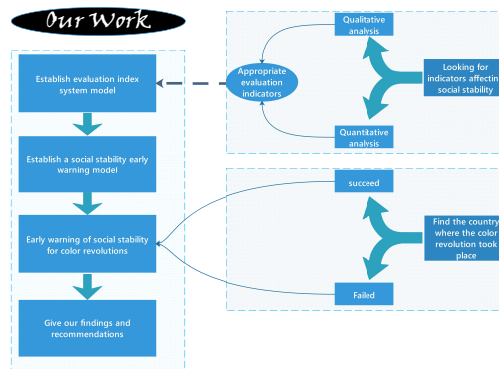


Figure 1: Our Work

# 2 Assumptions and Notations

## 2.1 Assumptions

To simplify our model, this paper makes following basic assumption, each of which is properly justified.

- We assume that  
 $\hookrightarrow$  **Justification:** Justification

## 2.2 Notations

Notations that we use in the model are shown in the Table 2:

Table 1: Notations

Symbol	Description	Unit
$A_i$	Level 1 indicators	-

Table 2: Notations

Symbol	Description	Unit
$r$	index of unfairness	-

### 3 Establishment of Our Model

#### 3.1 Model I

Step 1

### 4 Solution For Problem One

## **5 Analysis and Promotion of Our Model**

### **5.1 Sensitivity Analysis of Our Model**

### **5.2 Strengths and Weaknesses**

Our research is basically based on the predecessors, and there are some improvements and shortcomings as follows:

#### **5.2.1 Strengths**

#### **5.2.2 Weaknesses**

### **5.3 Future Work**

# M E M O

**To:** MCM/ICM organizing committee

**From:** Team 000000

**Date:** February 8, 2023

**Subject:**

THE

- *Keep a firm grip on the local media to prevent public opinion from getting out of control. There is no substitute for the role of the media in regime change, and its entry into and occupation of a country's position of public opinion can help to bring down that country's regime. For the ruling party, therefore, to give ground. That means the beginning of the loss of power, public opinion out of control, not much time.*

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## Algorithm 1: Simulation-optimization heuristic

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**Data:** current period  $t$ , initial inventory  $I_{t-1}$ , initial capital  $B_{t-1}$ , demand samples

**Result:** Optimal order quantity  $Q_t^*$

```

1  $r \leftarrow t$ ;
2  $\Delta B^* \leftarrow -\infty$ ;
3 while  $\Delta B \leq \Delta B^*$  and  $r \leq T$  do
4    $Q \leftarrow \arg \max_{Q \geq 0} \Delta B_{t,r}^Q(I_{t-1}, B_{t-1})$ ;
5    $\Delta B \leftarrow \Delta B_{t,r}^Q(I_{t-1}, B_{t-1}) / (r - t + 1)$ ;
6   if  $\Delta B \geq \Delta B^*$  then
7      $Q^* \leftarrow Q$ ;
8      $\Delta B^* \leftarrow \Delta B$ ;
9   end
10   $r \leftarrow r + 1$ ;
11 end
```

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