I am trying to write an article about the politics and political parties of Bangladesh could you please do me a favour, can you check my game theory explaining why parties use armed cadre in politics. I will be indebted to you.

- 1. In Bangladesh there are two main parties or more accurately saying two main poles of political hegemony. One hegemony is roughly led by Awami League (AL) and another is roughly led by Bangladesh Nationalist Party (BNP).
- 2. The activists of both party carries deadly fire arms.
- 3. Legal system of the country is politicized so there is no justice for the assassinated. Political killer almost always escape even investigations. When another party comes back in alternative term, it is always too late for a fair investigation for the murder. In order to simplify the matter I assume there is no justice at all.

## The Payoff Matrix:

There are total 10 votes in a country of which 2 votes are partisan vote for each party. If Awami League (AL) carries gun but Bangladesh Nationalist Party (BNP) doesn't carry the AL will die and as the only contester BNP will get all 10 votes and vice versa, if both carry guns or none carry guns the votes will be divided into equal (5, 5). Assume if both carry gun they don't kill each other because the killer can get killed because the guns are carried by the body guard.

|       |          | AL     |          |
|-------|----------|--------|----------|
|       |          | Armed  | Disarmed |
| DIVID | Armed    | (5, 5) | 2, 0     |
| BNP   | Disarmed | 0, 2   | 5, 5     |

In this scenario the absolute choice is the circled 5, 5, the upper-left cell. Now say for example if A gets killed there is punishment for the partis and that is they will loose their candidacy.

|       |          | AL     |          |
|-------|----------|--------|----------|
|       |          | Armed  | Disarmed |
| DIVID | Armed    | (5, 5) | 0, 0     |
| BNP   | Disarmed | 0, 0   | 5, 5     |

Still BNP will choose the upper row in order to avoid death and AL will choose left hand column in order to avoid death. So the solution remains the same.

Say now there is a 50 % chance of death instead of sure death.

|   |          | A              |                |
|---|----------|----------------|----------------|
|   |          | Armed          | Disarmed       |
| В | Armed    | 5, 5           | (0or2), (0or8) |
|   | Disarmed | (0or8), (0or2) | 5, 5           |

There is a chance that B will get killed if lower row is chosen because A is not winner anyway and for A the same reasoning.

## **Administrative action:**

Say there is legal environment now and there is 50% chance that the arms holder will get serious punishment including losing the candidature and there is no more escape of punishment for killing.

|   |          | A              |           |
|---|----------|----------------|-----------|
|   |          | Armed          | Disarmed  |
| В | Armed    | (5or0), (5or0) | (0or2), 8 |
|   | Disarmed | 8, (0or2)      | 5, 5      |

Now party B will choose lower/disarmed row in order to avoid being punished and for the same reason party A will choose right hand column.

## Partisan:

Say party A never win regardless she carries arms or not, party A only has vote no more than 4.

|   |          | А              |           |
|---|----------|----------------|-----------|
|   |          | Armed          | Disarmed  |
| В | Armed    | (6or0), (4or0) | (0or6), 4 |
|   | Disarmed | 8, (0or2)      | 6, 4      |

Still party A will choose right side column in order to avoid punishment.

Conclusion: Political violence can be more effectively controlled by fixing legal system.

If there is not any major error I will develop the game theory further and include some probability concept such as probability of outcome from using violence in politics.

Thank you, best regards. MD. FAISAL