

Game theory, Public choice model and Institutional model

Game theory

The game theory is the formal study of the conflict and the corporation. The concepts of game theory can relate whenever the actions of two or several players are interdependent. These players can be individuals, teams, businesses, organization or any combination of these. Game theory is an abstract and logical approach of decision making. The options are displayed in a matrix representing the alternative options of all players and all possible outcomes of the game. The actual result depends on the choice of players (Hermans, Cunningham, and Slinger 2012).

Game theory provides a method for formulating, structuring, analyzing and understanding strategic scenarios. The game theory is mainly used for the strategic planning of companies. However it can be used for policy making too. This theory can be apply for politics too. Decision making in national or international politically conflict situation is all about weighting the odds. Politician need to understand the reactions, actions and decisions of other politicians and need to react based on that. Since it is not sure the reaction of other side, game theory can be apply to this (Turocy and Stengel 2001). The best example for game theory in real political situation is Cuban missile crisis.

Example for game theory – Cuban Missile crisis

Cuman missile crisis was started in 1962 when Soviet Russia attempted to install nuclear armed ballistic missiles in Cuba which had ability to target United State of America. USA wanted to remove Soviet missiles immediate effort and US higher level decision makers seriously concerned two strategies to face this conflict situation.

1. A naval Blockade (B) - Prevention of the shipment of more missiles, possibly followed by stronger measures to persuade the Soviet Union to withdraw the missiles already installed.
2. A "surgical" air attack (A) - wiping away the missiles already installed as quickly as possible, perhaps followed by an invasion of Cuba.

The options available for Soviet Union.

1. Withdrawal of the missiles. (W)
2. Maintain the missiles (M).

Soviet Union

		Withdrawal (W)	Maintenance (M)
United state	Blockade (B)	Compromise (3,3)	Soviet victory, U.S defeat (2,4)
	Air strike (A)	U.S victory, Soviet defeat (4,2)	Nuclear war (1,1)

Key: (x,y) = (payoff to US, Payoff to SU)

4 = Best, 3 = Next best 2= next worst 1= worst

Finally, both parties wanted to move away from the worst outcome (1,1) that is nuclear war. This issue was ended up by compromising by both side in (3,3).

Strengths

- Game Theory provides insight into some lesser-known issues that arise in situations of conflict of interest. For example, the phenomena of collective bargaining and coalition formation are described and explained.
- Game Theory develops a framework for analyzing decision-making in circumstances that players' interdependence is taken into account.
- At least in two-person zero-sum games, game theory outlines a scientific quantitative technique that allows players to achieve optimal strategy (Turocy and Stengel 2001).

Weaknesses

- The assumption that players have the knowledge of their own and other payoffs is impractical.
- The techniques for solving mixed strategy games, especially with a large payoff matrix, are very complicated.
- Game theory can't use for solve all complicated issues (Turocy and Stengel 2001).

Public choice model

Public choice model can be applied to the methods and theories of economics to the analysis of political behavior. Public choice has been significantly change the research and studies of democratic decision making process.

Public choice is based on the same principles that economists use to study the activities of people in the market, and apply them to people's activities in collective decision-making. Economists who investigate behavior in the market believe that mainly people are driven by self-interest. While some people choose their actions on their concern for others, the prevailing motive of people's actions is a concern for them in the market whether they are employees, employers or customers. Economist apply same assumption for political arena that although people who are in the political arena are concerned about others, their main intention is self-interest whether they are politicians, voters, lobbyists or officials. It simply means that first they try to maximize their self-interests and produce goods for others as a by-product (Mariotti, 2017). According to Buchanan (2003), the theory replaces "romantic and illusory ... ideas about the functioning of governments ... with concepts that embody more skepticism.

Example for public choice model

According to Levy (1975), voting pattern of Americans for the Agricultural labor Relations Act had been revealed the public choice model. The people who worked for government agencies voted against the Agricultural labor Act since they would not directly benefit them and workers who worked for private sector voted for it. Generally people voted according to their self-interest.

Strengths

- Public choice theory support to understand why politicians and officials commonly fail to provide clear policies in their election campaigns.

- Public choice theory improve understanding of interest groups and their effects on public policy.
- It can applies to economic logic to the problems of public services distribution.

Weaknesses

- The theory of collective choice can explain only some undetermined fraction of collective action
- Public choice theory ignores the political influence of the disorganized majority, it could not accurately predict legislative responses to the issue.

Institutional model

Governmental institutions formulate, implement and enforce public policies. A policy does not become a public policy until it is approved and implemented by the governmental institutions. There can be identified three main characteristics of the public policies associated to the government institutions (Azis, 2011).

- Legitimacy and legality of public policies are mainly due to those are enforced by the government.
- Public policies are relevant to all the citizens of that particular country.
- Coercive element is involved in public policies.

According to the Intuitional model, there is a close relationship between governmental institution and public policies. This institutional approach has become one of the themes of public policy analysis and it studies the interactions of institutions created by the government, legislature and the constitution e. g. Members of Parliament, Prime Minister or Cabinet etc (Azis, 2011).

Example for institutional model

Few decades ago in Sri Lanka, smoking in public places such as public buses, film halls was very common thing. People continued this behavior even though they knew that this is ethically wrong. However once government prohibited smoking in public places and enforced the law, people obey it. Now no one can find a people who smoke public places such as public bus or a film hall.

Strengths

- Government has the ability to command the obedience of all its people

- This model provides procedures and methods for attaining or solving a specified problem.
- This is strengthen the law and order.

Weaknesses

- The institutional model is not supported by any systematic analysis about the impact of these institutional characteristics on public policy decisions. Therefore the study of linkage between government structures and policy outcomes, remained largely unanalyzed and neglected.
- Rules and institutional arrangements are usually not neutral in their impact.

References

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