

How to Cite:

Dr. Sunil Kumar (December 2018). A Critical Argument of Mahatma Gandhi's Trusteeship Using Game Theory Analysis

International Journal of Economic Perspectives,12(1), 285-294

Retrieved from <https://ijeponline.com/index.php/journal>

A Critical Argument of Mahatma Gandhi's Trusteeship Using Game Theory**Analysis**

Dr. Sunil Kumar, Assistant Professor
Department of Finance and Business Economics
University of Delhi, South Campus, New Delhi, India
dse.sunil@gmail.com

Abstract

Mahatma Gandhi's moral concept of Trusteeship has been criticized for its implementation, vagueness, application, and too much emphasis on the role of the wealthy people. The paper discusses Gandhi's idea of Trusteeship and attempts to present a critical argument using a game theoretic framework. The results of this paper show that Gandhi's Trusteeship idea can only be implemented when every trustee strictly follows altruistic behaviour no matter what other trustees are doing; however, this is a very strict assumption. When trustees are unaware of the behaviour of the other trustees, cooperation to contribute to society is possible only when every trustee starts giving more weight to the other trustees' altruistic behaviour.

Keywords: Strategic Game, Bayesian Nash equilibrium, Cooperation, Trusteeship, Altruism

Introduction

Trusteeship is generally a legal agreement whereby one person, the trustee, owns and manages assets on behalf of another party or the beneficiary. The trustee shall have responsibility for managing the assets in the best interests of beneficiaries, and they may be subject to legal liability where they do not comply. Gandhi's idea of Trusteeship is a social and ethical concept that runs counter to the law on Trusteeships. Gandhi insisted that, instead of coercion from one party to another, true Trusteeship could only be obtained by virtue of a mutually agreed agreement among equals. Gandhi's vision of Trusteeship was based on the principles of non-violence, self-reliance, and cooperation. He believed that all resources and wealth belonged to the community as a whole rather than to individuals or corporations and that it was the duty of those with wealth and power to use their resources to serve the common good. Trusteeship replaces competition with cooperation by encouraging the rich to renounce their wealth for the poor freely.

How to Cite:

Dr. Sunil Kumar (December 2018). A Critical Argument of Mahatma Gandhi's Trusteeship Using Game Theory Analysis

International Journal of Economic Perspectives, 12(1), 285-294

Retrieved from <https://ijeponline.com/index.php/journal>

Gandhi's seems to have a theological concept of Trusteeship, which has been replicated as a saying of Bhagavata Gita [(Majumdar, 1969), (Bhave, 1971), (Chakrabarty, 2017) , (Bakshi, 2016), (Mitra, 2011)]. According to him, God is the owner and the ruler of the entire material universe, and humans are nothing more than trustees[(Parel, 2006)]; they can earn from their labour what they need to support themselves and enjoy not as owners but as trustees (Chakrabarty, 2017).

Gandhian concept of Trusteeship has three dimensions; first, it's a moral assault on those with a disproportionate wealth, which can only be accumulated by stealing from others. Second, in his opinion, with an equal distribution of what Nature produces, poverty will automatically start diminishing, and third, despite his passionate opposition to those who have more than they need, Gandhi opposed their removal, as it would be a departure from the 'non-violence' creed (Chakrabarty, 2017).

Gandhi's concern about economic equality gave rise to the idea of Trusteeship, and he saw Trusteeship as a way to create a more just and equitable society (Chakrabarty, 2017), in which the needs of all people were met and everyone had the opportunity to flourish. Gandhi advocated for a society without classes (Koshal & Koshal, 1973). In Gandhi's opinion, Trusteeship is an "entirely mutual affair"; each one, the trustee and the ward, will feel that their interests are best protected by protecting the interests of the other (Appadorai, 1969).

Gandhi's idea of Trusteeship was somewhat similar to Karl Marx's notion of equality; however, how they are practiced differs. Gandhi supported non-violence to achieve economic equality, while Marx recommended violent class struggle (Chakrabarty, 2017). Gandhi believed that by practicing Trusteeship, individuals and organizations could cultivate compassion and empathy for others and work together to create a more peaceful and harmonious world. Corporate social responsibility (CSR) in today's world is closely tied to Gandhian Trusteeship [(Chakrabarty, 2017)]. However, the focus of CSR is confined to corporates and businesses; Gandhi's idea of Trusteeship extends beyond the realm of corporate entities and encompasses society as a whole. CSRs are a legal obligation, whereas Trusteeship by Gandhi is based on moral and spiritual principles.

N. Balasubramanian and R. B. Upadhyaya focused on how in the modern business model, Gandhi's concepts of Trusteeship can be linked to ethical management and responsibility. [(Balasubramanian, 2010), (Upadhyaya, 1976)]. Gandhi, in his view, had advocated private entrepreneurs as trustees; after keeping the fair profit, the remainder should distribute for societal benefits. Trusteeship is more than distribution of wealth; it also involves sharing

How to Cite:

Dr. Sunil Kumar (December 2018). A Critical Argument of Mahatma Gandhi's Trusteeship Using Game Theory Analysis

International Journal of Economic Perspectives, 12(1), 285-294

Retrieved from <https://ijeponline.com/index.php/journal>

assets such as knowledge and skills (Moolakkattu, Mathai, Pradhan, Joseph, & Thakkar, 2012). Gandhi expected businesses and society to look after the natural environment (Kolge & Sreekumar, 2011). Gandhi proposed a series of conditions for achieving an ideal Trusteeship, such as equality of opportunities, equal pay, reduction in wage disparities, reorganisation of the production system, redistribution of political and economic power, etc.

Critiques of Gandhi's Idea of Trusteeship

Mahatma Gandhi's concept of Trusteeship is an ethical and economic philosophy that suggests that wealthy or powerful individuals have a moral obligation to use their resources for the betterment of society. Despite being widely praised, his Trusteeship philosophy has also been criticized.

Some critics argue that Gandhi's Trusteeship concept is vague and unclear. They say there is no clear definition of the role of the trustee, nor is there a clear outline of the specific duties that the trustee should undertake. Trusteeship is ambiguous, and how it would be implemented in practice is unclear. Some argue that it would be difficult to ensure that the trustees act in the community's best interests rather than their self-interest [(Pathak, 2008), (Parekh, 1989), (Dantwala, 1945), (Myrdal, 1968)].

Critics argue that the concept of Trusteeship lacks accountability. Trustees are not accountable to the people they are supposed to serve, and there are no clear mechanisms to ensure that they act in the community's best interests. There is no legal or institutional framework to ensure that the trustees carry out their duties, and there is no guarantee that they will not abuse their power.

It is observed that Gandhi's Trusteeship concept places too much emphasis on the part of the rich in society rather than on the importance of democratic decision-making and the participation of ordinary citizens [(Iyer, 1998), (Tidrick, 2013)].

Trusteeship can be viewed as a moral framework for economic decision-making; game theory can help us analyse the various strategies and outcomes involved in such decision-making processes. The paper analyses the behaviour of individuals entrusted with resources by a wealthy benefactor. For example, if a wealthy person establishes a trust fund to benefit a specific community, using game theory models, we are trying to predict how the trustees will manage those resources and whether they will act in the best interests of the community or their self-interest.

How to Cite:

Dr. Sunil Kumar (December 2018). A Critical Argument of Mahatma Gandhi's Trusteeship Using Game Theory Analysis

International Journal of Economic Perspectives,12(1), 285-294

Retrieved from <https://ijeponline.com/index.php/journal>

Strategic Game of Trustees

We assume that there are two trustees (Wealthy Persons), namely T1 and T2. They both have rational behaviour, and try to maximize their payoffs. Trustees have two actions to play; either contribute a portion of their wealth for societal benefit (SB) or use the whole wealth for their private benefit (PB). By contributing to society, their payoff will reduce by the portion they contribute to society; let the contribution be

$$x = \begin{cases} 0 & \text{if the contribution is nil} \\ > 0 & \text{if the contribution is some positive value} \end{cases}$$

Assume that the wealth of the two trustees is equal to $y > 0$ and $y > x$. It is possible that $x = y$, if the particular trustee contributes its whole wealth to the society. The strategic game is defined as:

Player: Two Trustees (T1 and T2)

Actions/Strategies: $T1=T2= \{\text{Social Benefit (SB), Private Benefit (PB)}\}$

Preferences: For T1: $\psi_1(PB, SB) > \psi_1(PB, PB) > \psi_1(SB, SB) > \psi_1(SB, PB)$

For T2: $\psi_2(SB, PB) > \psi_2(PB, PB) > \psi_2(SB, SB) > \psi_2(PB, SB)$

Table 1: Payoff Matrix

		Player: T2	
		SB	PB
Player: T1	SB	$[(y-x_1), (y-x_2)]$	$[(y-x_1), (y)]$
	PB	$[(y), (y-x_2)]$	$[(y), (y)]$

Given the strategy of player T2, say SB or PB, the optimal strategy of player T1 is PB¹; similarly, given the strategy of player T1, say SB or PB, the optimal strategy of player T2 is

¹ If T2 plays SB, then T1 best strategy is to play PB as $y > y - x_1$; if T2 plays PB, then T1 best strategy is to play PB as $y > y - x_1$

How to Cite:

Dr. Sunil Kumar (December 2018). A Critical Argument of Mahatma Gandhi's Trusteeship Using Game Theory Analysis

International Journal of Economic Perspectives,12(1), 285-294

Retrieved from <https://ijeponline.com/index.php/journal>

PB². Both the players have a strict dominant strategy, i.e., PB. Therefore, the Nash equilibrium of the above game is (PB, PB).

Now, if we relax the assumption that both trustees are rational and try to maximize their payoffs, Mahatma Gandhi pointed out that if the trustees have altruistic behaviour rather than caring about their benefits, they care more about society. Then the preference ranking will change to the following

Preferences: For T1: $\psi_1(SB, SB) = \psi_1(SB, PB) > \psi_1(PB, SB) = \psi_1(PB, PB)$

For T2: $\psi_2(SB, SB) = \psi_2(PB, SB) > \psi_2(SB, PB) = \psi_2(PB, PB)$

Table 2: Payoff Matrix:

		Player: T2	
		SB	PB
Player: T1	SB	[(y-x ₁), (y-x ₂)]	[(y-x ₁), (y)]
	PB	[(y), (y-x ₂)]	[(y), (y)]

The payoffs are the same in Table 1 and Table 2, but the players' preference rankings differ. In the above game, where both the players have altruistic behaviour, the dominant strategy for both the players is SB; therefore, the Nash Equilibrium of this game is (SB, SB).

Now we should ask ourselves, is this Nash Equilibrium sustainable? According to Gandhi's idea of Trusteeship, all the players should have altruistic behaviour, which is a very strict assumption; however, there is always an incentive to cheat and increase their payoff. The idea of Trusteeship ideally is impractical unless every trustee cooperates to contribute to society.

Bayesian Game of Trustees

In reality, none of the players knows whether the other player will have selfish (not contributing to society) or altruistic behaviour. We can analyse the following Bayesian game to understand the role of imperfect information.

² If T1 plays SB, then T2 best strategy is to play PB as $y > y - x_2$; if T1 plays PB, then T2 best strategy is to play PB as $y > y - x_2$

How to Cite:

Dr. Sunil Kumar (December 2018). A Critical Argument of Mahatma Gandhi's Trusteeship Using Game Theory Analysis

International Journal of Economic Perspectives, 12(1), 285-294

Retrieved from <https://ijeponline.com/index.php/journal>

Figure 1: Bayesian Game of Trustees

		q ————— Player 2: T2 ————— $1-q$			
		p ————— Player 1: T1 ————— $1-p$			
		Player 2		Player 2	
		SB	PB	SB	PB
Player 1	SB	$[(y-x_1), (y-x_2)]$	$[(y-x_1), (y)]$	$[(y-x_1), (y-x_2)]$	$[(y-x_1), (y)]$
	PB	$[(y), (y-x_2)]$	$[(y), (y)]$	$[(y), (y-x_2)]$	$[(y), (y)]$
		Selfish Behaviour (RB)		Altruistic Behaviour (AB)	

Or

		q ————— Player 2: T2 ————— $1-q$			
		p ————— Player 1: T1 ————— $1-p$			
		Player 2		Player 2	
		SB	PB	SB	PB
Player 1	SB	$[(y-x_1), (y-x_2)]$	$[(y-x_1), (y)]$	$[(x_1-y), (x_2-y)]$	$[(x_1-y), (-y)]$
	PB	$[(y), (y-x_2)]$	$[(y), (y)]$	$[(-y), (x_2-y)]$	$[(-y), (-y)]$
		Selfish Behaviour (RB)		Altruistic Behaviour (AB)	

Players: Two trustees (T1 and T2) and four types: Player T1 has two types T1 with Selfish Behaviour and T2 with Altruistic Behaviour. Player T2 has two types T2 with Selfish Behaviour and T2 with Altruistic Behaviour.

States: The set of states is {Selfish Behaviour (RB), Altruistic Behaviour(AB)}

Actions: Player T1 has two actions SB and PB. Player T2 also has two actions SB and PB

How to Cite:

Dr. Sunil Kumar (December 2018). A Critical Argument of Mahatma Gandhi's Trusteeship Using Game Theory Analysis

International Journal of Economic Perspectives,12(1), 285-294

Retrieved from <https://ijeponline.com/index.php/journal>

Signals: Player T1 receives a single signal say Z, his signal function φ_1 satisfies $\varphi_1(RB) = \varphi_1(AB) = Z$. Player T2 also receives a single signal say H, his signal function φ_2 satisfies $\varphi_2(RB) = \varphi_2(AB) = H$.

Beliefs: Player T1 assigns probability p and 1-p to the two states (RB and AB) after receiving the signal Z, and Player T2 assign probability q and 1-q to the two states (RB and AB) after receiving the signal H.

Payoffs: The payoffs $\mu_i(a_{T1}, a_{T2})$ for each ith player for all possible action pairs and states given in Figure 1.

Expected payoffs of both the player, when neither player knows the state as follows

Table 3: Expected payoff of trustees T1 and T2

		Player: T2	
		SB	PB
Player: T1	SB	$[(2py - y) + (x_1 - 2px_1)],$ $[(2qy - y) + (x_2 - 2qx_2)]$	$[(2py - y) + (x_1 - 2px_1)]$ $[2qy - y]$
	PB	$[2py - y],$ $[(2qy - y) + (x_2 - 2qx_2)]$	$[2py - y],$ $[2qy - y]$

The expected payoff of player T1

1. When he plays SB in both the states (RB and AB)

$$E(SB, SB)_{T1} = p(y - x_1) + (1 - p)(x_1 - y) = py - px_1 + x_1 - y - px_1 + py$$

$$= 2py - 2px_1 + x_1 - y = (2py - y) + (x_1 - 2px_1)$$

$$E(SB, PB)_{T1} = p(y - x_1) + (1 - p)(x_1 - y) = py - px_1 + x_1 - y - px_1 + py$$

$$= 2py - 2px_1 + x_1 - y = (2py - y) + (x_1 - 2px_1)$$

2. When he plays PB in both the states (RB and AB)

How to Cite:

Dr. Sunil Kumar (December 2018). A Critical Argument of Mahatma Gandhi's Trusteeship Using Game Theory Analysis

International Journal of Economic Perspectives, 12(1), 285-294

Retrieved from <https://ijeponline.com/index.php/journal>

$$E(PB, SB)_{T1} = p(y) + (1 - p)(-y) = py - y + py = 2py - y$$

$$E(PB, PB)_{T1} = p(y) + (1 - p)(-y) = py - y + py = 2py - y$$

The expected payoff of player T2

1. When he plays SB in both the states (RB and AB)

$$\begin{aligned} E(SB, SB)_{T2} &= q(y - x_2) + (1 - q)(x_2 - y) = qy - qx_2 + x_2 - y - qx_2 + qy \\ &= 2qy - 2qx_2 + x_2 - y = (2qy - y) + (x_2 - 2qx_2) \end{aligned}$$

$$\begin{aligned} E(PB, SB)_{T2} &= q(y - x_2) + (1 - q)(x_2 - y) = qy - qx_2 + x_2 - y - qx_2 + qy \\ &= 2qy - 2qx_2 + x_2 - y = (2qy - y) + (x_2 - 2qx_2) \end{aligned}$$

2. When he plays PB in both the states (RB and AB)

$$E(SB, PB)_{T2} = q(y) + (1 - q)(-y) = qy - y + qy = 2qy - y$$

$$E(PB, PB)_{T2} = q(y) + (1 - q)(-y) = qy - y + qy = 2qy - y$$

Bayesian Nash Equilibrium

From Table 3, we can deduce that

If $x_1 - 2px_1 > 0$, then strategy SB will dominate PB for T1.

We know that $0 < p < 1$, therefore

- if $p < 1/2$ then $x_1 > 2px_1 \Rightarrow$ SB dominates PB for T1
- if $p = 1/2$ then $x_1 = 2px_1 \Rightarrow$ Indifferent between SB and PB for T1
- if $p > 1/2$ then $x_1 < 2px_1 \Rightarrow$ PB dominates SB for T1

Similarly,

If $x_2 - 2qx_2 > 0$, then strategy SB will dominate PB for T2.

How to Cite:

Dr. Sunil Kumar (December 2018). A Critical Argument of Mahatma Gandhi's Trusteeship Using Game Theory Analysis

International Journal of Economic Perspectives, 12(1), 285-294

Retrieved from <https://ijeponline.com/index.php/journal>

We know that $0 < q < 1$, therefore

- if $q < 1/2$ then $x_1 > 2px_1 \Rightarrow$ SB dominates PB for T2
- if $q = 1/2$ then $x_1 = 2px_1 \Rightarrow$ Indifferent between SB and PB for T2
- if $q > 1/2$ then $x_1 < 2px_1 \Rightarrow$ PB dominates SB for T2

Therefore, we conclude that Bayesian Nash Equilibrium (SB, SB) is only possible only if

$p \leq 1/2$ and $q \leq 1/2$.

Conclusion

Gandhi's concept of Trusteeship is being mocked as a utopian idea with limited practicality; it can only inspire those who believe in a just and equitable world [(Dwivedi, 1982), (Koshal & Koshal, 1973) (Sen, 1991) (Moolakkattu, Mathai, Pradhan, Joseph, & Thakkar, 2012)]. Bidyut Chakrabarty has written that the success of Trusteeship is based on trust; every stakeholder should believe in their trustees (Chakrabarty, 2017).

Critics of Gandhi's Trusteeship have pointed out that practical implementation of true Trusteeship is impossible. This paper tried to see the possibility of implementing the idea of Trusteeship in society through a game theoretical model. The Nash equilibrium (Private benefit, private benefit) of the two-player (trustees) strategic game shows that every trustee is selfish and prefers personal benefit over society's benefit. Nash equilibrium (Social Benefit, Social Benefit) is only possible if both the players have altruistic behaviour and do not cheat; however, it's a very strict assumption, and there is always an incentive to cheat.

The result of the Bayesian Game, where both the trustees are unaware of the behaviour of the other (selfish or altruistic), shows that Trusteeship is only possible if every trustee gives more weight to the altruistic behaviour of the other trustees. Thinking that the other trustee will behave unselfishly or give more weight to the altruistic behaviour of the other trustee is again a very strict supposition, and we should also think that if the game is repeated for a limited or infinite time, then cooperation is possible.

How to Cite:

Dr. Sunil Kumar (December 2018). A Critical Argument of Mahatma Gandhi's Trusteeship Using Game Theory Analysis

International Journal of Economic Perspectives, 12(1), 285-294

Retrieved from <https://ijeponline.com/index.php/journal>

References

- Appadorai, A. (1969). Gandhi's Contribution to Social Theory. *The Review of Politics*, 31(3), 312-328.
- Bakshi, R. (2016). *Trusteeship: business and the economics of well-being*. Gate Way House.
- Balasubramanian, N. (2010). Governing the socially responsible corporation: A Gandhian perspective. In A. Gupta (Ed.), *Ethics, business and society: Managing responsibly* (pp. 157-181). New Delhi: SAGE Publications India Pvt. Ltd.
- Bhave, V. (1971). *Introduction in K. G. Mashruwala, Gandhi and Marx*. Ahmedabad: Navajivan Trust.
- Chakrabarty, B. (2017). *Gandhi's Doctrine of Trusteeship: Spiritualizing Interpersonal Relationship*. Working Paper No. 67, Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar, Odisha.
- Dantwala, M. L. (1945). *Gandhism Reconsidered*. Bombay: Padma Publications.
- Dwivedi, R. S. (1982). The Gandhian trusteeship system with special reference to labour relations. *Indian Journal of Industrial Relations*, 17(3), 429-439.
- Iyer, R. (1998). *The Essential Writings of Mahatma Gandhi*. India: Oxford University Press.
- Kolge, N., & Sreekumar, N. (2011). *Gandhi's Criticism of Industrialization and Modernity; An*. Taylor & Francis, Ltd.
- Koshal, R. K., & Koshal, M. (1973). Gandhian Economic Philosophy. *The American Journal of Economics and Sociology*, 32(2), 191-09.
- Majumdar, B. (1969). Gandhi and Socialism. *Indian Literature*, 12(3), 5-13.
- Mitra, M. (2011). *It's Only Business! India's Corporate social Responsiveness in a Globalized World*. Oxford.
- Moolakkattu, J. S., Mathai, M. P., Pradhan, R. C., Joseph, S. K., & Thakkar, U. (2012). *Contextualising Gandhian Thought: Eassay in Honour of and by Ravindra Verma*. (S. K. Joseph, Ed.) Wardha: Institute of Gandhian Studies.
- Myrdal, G. (1968). *Asian Drama: An Inquiry into the Poverty of Nations*. New York: Panteon.
- Parekh, B. (1989). *Gandhi's Political Philosophy*. London: Palgrave Macmillan London. doi:<https://doi.org/10.1007/978-1-349-09248-2>
- Parel, A. J. (2006). *Gandhi's philosophy and the quest for harmony*. Cambridge: Cambridge University Press.
- Pathak, S. K. (2008). GANDHI AND CIVIL SOCIETY. *The Indian Journal of Political Science*, 69(2), 269-278.
- Sen, R. (1991). In the name of trusteeship. *Indian Journal of Industrial Relations*, 26(4), 412-424.
- Tidrick, K. (2013). *Gandhi: A Political and Spiritual Life*. Verso Books.
- Upadhyaya, R. B. (1976). *Social responsibility of business and the trusteeship theory of Mahatma Gandhi*. New Delhi: Sterling Publishers.