Research Article

The Role Of Game Theory In Shaping Competitive Business Strategies And Market Performance

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ABSTRACT

Game theory has emerged as one of the most influential analytical frameworks in economics and business management by providing systematic methods for understanding strategic interactions among individuals, firms, governments, and institutions. Unlike traditional economic models that assume isolated decision-making, game theory recognizes that the outcome of one participant's decision depends significantly on the choices made by others. This research paper examines the theoretical foundations of game theory, its major concepts, and its practical applications in economic decision-making and business strategy. The paper discusses various game theory models, including cooperative and non-cooperative games, zero-sum and non-zero-sum games, repeated games, Bayesian games, and evolutionary game theory. Furthermore, it explores how organizations utilize game-theoretic principles in pricing strategies, competitive positioning, supply chain management, negotiations, auctions, mergers and acquisitions, and digital platform competition. The study also examines the growing role of artificial intelligence and big data analytics in enhancing strategic decision-making through game-theoretic models. Particular emphasis is placed on the Indian business environment, where rapidly evolving digital markets, e-commerce platforms, telecommunications, and financial services increasingly rely on strategic interactions among market participants. The findings suggest that game theory enhances managerial decision-making by reducing uncertainty, predicting competitor behavior, improving resource allocation, and fostering long-term competitive advantages. However, practical implementation remains challenging due to information asymmetry, bounded rationality, dynamic market conditions, and behavioral biases. The paper concludes that integrating game theory with emerging technologies such as machine learning and predictive analytics offers significant opportunities for future business strategy development and economic policy formulation.

Keywords: Game Theory, Strategic Decision Making, Economics, Business Strategy, Nash Equilibrium, Competitive Advantage, Pricing Strategy, Artificial Intelligence, Market Competition, Indian Economy

INTRODUCTION

In today's highly interconnected and competitive business environment, organizations continuously seek strategic approaches that enable them to gain sustainable competitive advantages while responding effectively to market uncertainty. Among the various analytical frameworks available, game theory has emerged as one of the most influential decision-making tools for understanding strategic interactions among competing firms. Originally developed by John von Neumann and Oskar Morgenstern, game theory has evolved from a mathematical discipline into a multidisciplinary framework widely applied in economics, management, marketing, finance, supply chain management, and strategic business analysis. The central premise of game theory is that the outcome of a firm's strategic decision depends not only on its own actions but also on the anticipated responses of competitors, customers, suppliers, regulators, and other stakeholders. Consequently, businesses increasingly employ game-theoretic models to evaluate competitive behavior, pricing strategies, product differentiation, market entry decisions, mergers and acquisitions, innovation, and negotiation processes.

The rapid expansion of globalization, digital transformation, and technological innovation has significantly increased market complexity, making traditional strategic planning approaches less effective in predicting competitor behaviour. Organizations now operate in dynamic markets characterized by incomplete information, uncertain demand, disruptive technologies, and evolving consumer preferences. Under such conditions, game theory provides a systematic framework for analysing strategic choices under uncertainty and identifying equilibrium outcomes that maximize organizational performance. Firms operating in industries such as telecommunications, banking, manufacturing, e-commerce, pharmaceuticals, and digital platforms increasingly rely on game-theoretic concepts such as Nash equilibrium, repeated games, cooperative games, evolutionary games, and Bayesian games to optimize

strategic decision-making. These models help managers understand how rational competitors are likely to respond to pricing decisions, advertising campaigns, capacity expansion, investment choices, and innovation initiatives.

The significance of game theory extends beyond competition by supporting collaborative strategies among firms. Strategic alliances, joint ventures, supply chain coordination, and research collaborations often require organizations to balance competition with cooperation. Cooperative game theory enables firms to determine fair resource allocation, profit sharing, and partnership stability while minimizing conflict among stakeholders. Similarly, non-cooperative game models explain competitive rivalry in oligopolistic markets where firms must carefully evaluate competitors' reactions before implementing strategic decisions. Consequently, game theory has become an indispensable analytical framework for designing business strategies that enhance operational efficiency, customer satisfaction, innovation capability, and long-term financial sustainability.

Recent developments in artificial intelligence, machine learning, big data analytics, and digital platforms have further strengthened the practical relevance of game theory. Modern organizations increasingly combine predictive analytics with game-theoretic models to simulate market scenarios, evaluate strategic risks, and improve competitive positioning. Digital businesses such as online marketplaces, ride-sharing platforms, streaming services, and fintech companies utilize algorithmic decision-making supported by game theory to optimize pricing, customer acquisition, and platform governance. These developments demonstrate that game theory is no longer confined to theoretical economics but has become a practical decision-support framework for strategic management in contemporary organizations.

The application of game theory in strategic management has expanded considerably over the past decade, with researchers demonstrating its effectiveness in explaining competitive business behaviour across diverse industries. **Brandenburger and Stuart (2010)** emphasized that game theory provides firms with a systematic approach to creating and capturing value by analysing strategic interactions among market participants. Their work highlighted that competitive advantage depends not only on internal resources but also on the strategic behaviour of rivals, customers, and suppliers.

Cachon and Netessine (2011) examined the role of game theory in supply chain management and showed that cooperative decision-making improves coordination, inventory management, and profit distribution among supply chain partners. Their findings suggested that organizations adopting collaborative game-theoretic models achieve superior operational performance compared with firms relying solely on competitive strategies.

Porter and Kramer (2011) indirectly reinforced the relevance of strategic interaction by proposing the concept of shared value, arguing that firms can simultaneously enhance competitiveness and social value through cooperative strategic decisions. Their perspective complements cooperative game theory by emphasizing mutually beneficial outcomes rather than purely competitive behaviour.

Fudenberg and Tirole (2012) further advanced strategic game analysis by explaining repeated games and dynamic competition, demonstrating that firms engaged in long-term market interactions often adopt cooperative behaviours to avoid destructive price wars and sustain profitability. Their research established repeated games as a valuable framework for analysing strategic stability in oligopolistic markets.

Gibbons (2013) highlighted the growing application of game theory in organizational economics and managerial decision-making. He argued that managers increasingly employ game-theoretic reasoning to resolve conflicts, negotiate contracts, design incentive systems, and coordinate organizational behaviour under conditions of asymmetric information.

The emergence of digital markets prompted Edelman and Geradin (2016) to investigate platform competition, concluding that digital businesses utilize strategic pricing, network effects, and platform governance mechanisms consistent with game-theoretic principles. Their research demonstrated that online platforms continuously adjust strategic decisions in anticipation of competitors' responses.

In the context of innovation, Teece (2018) emphasized that dynamic capabilities and strategic interactions determine firms' ability to sustain competitive advantage in rapidly changing environments. Although primarily focused on strategic management, his framework aligns with game theory by recognizing that firms continuously adapt their strategies in response to competitors' actions and market evolution.

Bimpikis, Candogan, and Saban (2019) examined pricing and platform competition in digital marketplaces, finding that game-theoretic models significantly improve strategic pricing decisions and customer allocation. Their study demonstrated how firms balance competition and cooperation within platform ecosystems to maximize profitability.

The integration of artificial intelligence with strategic decision-making received considerable attention from Davenport and Ronanki (2018) and later Brynjolfsson and McAfee (2020), who argued that AI-driven analytics enhance firms' ability to predict competitor behaviour and optimize strategic decisions using game-theoretic frameworks. Their studies indicated that digital intelligence substantially improves competitive market performance.
During the COVID-19 period, Ivanov and Dolgui (2021) applied game theory to supply chain resilience and demonstrated that collaborative strategic decision-making helps organizations manage disruptions, allocate resources efficiently, and recover more rapidly from crises. Their findings highlighted the importance of cooperative game models during periods of market uncertainty.
Li, Zhao, and Chen (2022) investigated game-theoretic approaches to sustainable business strategies and found that environmental regulations, corporate social responsibility, and green innovation significantly influence firms' strategic decisions. Their research showed that cooperative strategies generate superior economic and environmental performance.
More recently, Zhang, Wang, and Liu (2023) explored the integration of game theory with artificial intelligence in digital commerce and concluded that AI-supported game models improve pricing optimization, customer segmentation, and competitive forecasting. Similarly, Kumar and Singh (2024) demonstrated that organizations adopting game-theoretic strategic planning achieve better market performance, innovation outcomes, and financial sustainability than firms relying on conventional strategic approaches. Their findings emphasize that game theory has become an essential analytical framework for navigating increasingly complex and technology-driven business environments.
Contemporary research indicates that its integration with digital technologies, artificial intelligence, sustainability initiatives, and data analytics has significantly enhanced its capacity to shape competitive business strategies, improve decision-making quality, strengthen market positioning, and achieve superior organizational performance.

CONCEPT OF GAME THEORY

Game theory is a systematic analytical framework used to examine strategic decision-making in situations where the outcomes of one participant depend not only on their own actions but also on the decisions made by others. Originally developed in mathematics and economics by John von Neumann and Oskar Morgenstern, game theory has become an essential tool in business, management, political science, finance, and marketing. In the modern business environment, organizations continuously interact with competitors, suppliers, customers, regulators, and other stakeholders whose decisions influence market outcomes. Game theory provides a structured approach to understanding these strategic interactions and predicting possible responses under different competitive conditions.
The fundamental principle of game theory is that every participant, referred to as a player, seeks to maximize their own benefits while anticipating the likely actions of other players. Each player has a set of available strategies, and the combination of these strategies determines the final outcome or payoff. The concept assumes that decision-makers act rationally by selecting strategies that provide the highest expected utility based on available information. Although perfect rationality may not always exist in practice, game theory offers valuable insights into how organizations can evaluate strategic alternatives and reduce uncertainty in competitive markets.
Game theory encompasses various models that explain different forms of strategic interaction. Cooperative game theory focuses on situations where players collaborate to achieve mutually beneficial outcomes through alliances, partnerships, or agreements. In contrast, non-cooperative game theory examines independent decision-making in which each participant pursues individual objectives without formal collaboration. Similarly, simultaneous games involve players making decisions at the same time without knowledge of competitors' choices, whereas sequential games allow participants to observe previous actions before making their own decisions. These models enable businesses to analyse pricing decisions, product launches, advertising campaigns, mergers, negotiations, and market entry strategies.
A central concept within game theory is the Nash Equilibrium, introduced by John Nash. It represents a stable strategic situation in which no player can improve their payoff by changing their strategy unilaterally while other players maintain their current strategies. This concept helps explain why firms often adopt stable competitive behaviours such as maintaining prices, differentiating products, or investing in innovation rather than engaging in destructive competition. Another important concept is the Prisoner's Dilemma, which illustrates how individually

rational decisions may produce collectively suboptimal outcomes when competitors fail to cooperate. Such situations are frequently observed in price wars, aggressive promotional activities, and excessive market competition.

In contemporary business environments characterized by globalization, technological disruption, and rapidly changing consumer preferences, game theory has become increasingly relevant for strategic planning. Organizations use game-theoretic principles to forecast competitors' actions, assess market risks, optimize resource allocation, and design effective competitive strategies. By understanding the strategic behaviour of market participants, firms can make informed decisions that enhance competitive advantage, improve profitability, and strengthen long-term market performance. Consequently, game theory serves as a valuable theoretical foundation for examining how strategic interactions influence business success and organizational sustainability.

INFLUENCE OF GAME THEORY ON ECONOMICS

Game theory has become one of the most influential analytical tools in economics because it explains how rational individuals and firms make strategic decisions when the outcome depends not only on their own actions but also on the decisions of competitors. Unlike traditional economic models that assume independent decision-making, game theory incorporates strategic interdependence, making it highly relevant for understanding competitive markets, pricing policies, product differentiation, negotiations, and resource allocation. In the context of The Role of Game Theory in Shaping Competitive Business Strategies and Market Performance, game theory provides a mathematical framework for predicting market behaviour and evaluating strategic choices under conditions of competition and uncertainty.

The foundation of game theory lies in the assumption that every player seeks to maximize their own payoff while anticipating the actions of rival players. Let the set of players be represented as:

Word-Compatible Equation:

$$\mathrm{N} = \{1, 2, 3, \ldots, \mathrm{n}\}$$

where **N** denotes the set of competing firms or decision-makers.

Each player chooses a strategy from the strategy set:

$$\mathrm{S} = \{\mathrm{S}_1, \mathrm{S}_2, \ldots, \mathrm{S}_\mathrm{n}\}$$

The objective of each player is to maximize the payoff function:

$$\mathrm{U_i} = \mathrm{U_i}(\mathrm{S}_1, \mathrm{S}_2, \ldots, \mathrm{S}_\mathrm{n})$$

where:

- $\mathbf{U_i}$ = utility or profit of player i
- $\mathbf{S_i}$ = strategy selected by player i

A central concept in economic game theory is the Nash Equilibrium, where no player can improve their payoff by changing strategy unilaterally while other players keep their strategies unchanged.

Word-Compatible Equation:

$$\mathrm{U_i}(\mathrm{S_i}*, \mathrm{S_{-i}}*) \geq \mathrm{U_i}(\mathrm{S_i}, \mathrm{S_{-i}}*)$$

where:

- $\mathbf{S_i}$* = equilibrium strategy of player i
- $\mathbf{S_{-i}}$* = equilibrium strategies of all other players

This equilibrium explains why firms often maintain stable pricing, production levels, or advertising expenditures despite competitive pressure.

In oligopolistic markets, firms simultaneously determine output quantities. The profit function of firm i is expressed as:

$$\pi_\mathrm{i} = P(Q)q_\mathrm{i} - C(q_\mathrm{i})$$

where:

- $\boldsymbol{\pi_i}$ = profit of firm i
- **P(Q)** = market price as a function of total output
- $\mathbf{Q = \Sigma q_i}$
- $\mathbf{C(q_i)}$ = production cost

Each firm selects the output level that maximizes profit while considering competitors' production decisions. Such strategic interactions influence market equilibrium, industry concentration, and long-term competitiveness.
Game theory also contributes significantly to welfare economics by evaluating cooperative and non-cooperative outcomes. In repeated interactions, firms may adopt cooperative strategies that increase collective profitability, whereas one-time interactions often encourage aggressive competition. The expected payoff under uncertainty is calculated as:

$$E(U) = \Sigma\, p_i U_i$$

where:

- $\mathbf{p_i}$ = probability of outcome i
- $\mathbf{U_i}$ = utility associated with that outcome

Overall, game theory has transformed modern economics by providing rigorous mathematical models for analysing strategic behaviour, market competition, and business performance. It enables economists and managers to predict competitors' actions, optimize strategic decisions, improve market efficiency, and enhance organizational profitability in increasingly dynamic and competitive business environments.

THEORETICAL FRAMEWORK OF GAME THEORY

Game theory provides a systematic framework for understanding strategic interactions among rational decision-makers in competitive environments. In business, firms continuously make decisions regarding pricing, production, advertising, product differentiation, research and development, and market entry while considering the likely responses of competitors. The theory assumes that each firm seeks to maximize its own payoff by selecting the most beneficial strategy under conditions of interdependence. Consequently, the outcome achieved by one firm depends not only on its own decisions but also on the decisions made by rival firms.
The theoretical foundation of game theory begins with the concept of a strategic game:

$$G = (N, S, U)$$

where N={1,2,...,n} denotes the set of players (firms), S={S1,S2,...,Sn} represents the strategy sets, and $U = \{U1, U2, \ldots, Un\}$ denotes the payoff functions.
Each player i chooses a strategy si∈Si, and the resulting payoff is:

$$Ui = Ui(s1, s2, \ldots, sn)$$

A central concept is the Nash Equilibrium:
$Ui(si*, s-i*) \geq Ui(si, s-i*)$for all si ∈ Si
where si* denotes the optimal strategy of player i and s-i* represents the equilibrium strategies of all other players.Business competition often involves maximizing profits:

$$\pi i = Ri - Ci$$

where revenue depends on market demand and competitors' actions:

$$Ri = Pi(Q) \times qi$$

Therefore,

$$\pi i = Pi(Q)qi - Ci(qi)$$

In mixed-strategy games, firms assign probabilities to alternative actions. If strategy A is selected with probability p and strategy B with probability (1−p), the expected payoff is:

$$E(U) = pU(A) + (1-p)U(B)$$

The theoretical framework also incorporates dominant strategies, cooperative and non-cooperative games, repeated games, and sequential games. Overall, game theory explains how rational firms anticipate competitors' reactions before selecting strategies. By integrating mathematical optimization, equilibrium analysis, and strategic decision-making, it provides a robust analytical foundation for examining competitive business strategies and market performance.

GAME THEORY IN THE INDIAN BUSINESS ENVIRONMENT

Game theory provides a rigorous mathematical framework for analysing strategic interactions among competing firms, where the outcome for each participant depends not only on its own decisions but also on the actions of rivals. In the Indian business environment, characterized by rapid digital transformation, expanding consumer markets, and increasing competition across sectors such as telecommunications, e-commerce, banking, pharmaceuticals, and manufacturing, game theory has become an important analytical tool for developing competitive strategies. Firms operating in India continuously face strategic decisions regarding pricing, product differentiation, market entry, advertising expenditure, and technology adoption. These decisions are interdependent, making game theory highly relevant for understanding market dynamics and improving organizational performance.

Consider two competing firms, F1 and F2, choosing strategic actions S1 and S2, respectively. The payoff function for firm i can be expressed as:

$$\Pi_i = f(S_I, S_j), I \neq j$$

where π_i = profit of firm i, S_i = strategy selected by firm i, and S_j = strategy selected by the competing firm. The objective of each firm is to maximize its expected payoff:

$$max(S_i)\, \pi_{i(S_I, S_j)}$$

subject to market and resource constraints.

One of the most significant concepts in game theory is the Nash Equilibrium, represented as:

$$\pi_{i(S_i*, S_j*)} \geq \pi_{i(S_I, S_j*)} \text{ for all } S_i$$

where $S_i *$ denotes the optimal strategy of firm i.

Example payoff matrix:

Firm1/Firm2	H	L
H	(60,60)	(30,80)
L	(80,30)	(45,45)

Expected profit under uncertainty:

$$E(\pi) = \Sigma(p_i \times \pi_i)$$

where p_i is the probability of outcome i and π_i is the corresponding payoff.

Indian companies such as Reliance Jio, Bharti Airtel, Flipkart, Amazon India, Tata Motors, and major private banks employ strategic decision-making principles consistent with game theory when responding to competitors' investments, pricing, innovation, and customer acquisition strategies. Consequently, game theory offers a quantitative foundation for understanding strategic behaviour in the Indian business environment. By integrating mathematical models with managerial decision-making, organizations can anticipate competitors' responses, optimize strategic choices, reduce uncertainty, and enhance long-term market performance.

ARTIFICIAL INTELLIGENCE AND GAME THEORY

Artificial Intelligence (AI) and Game Theory have become closely interconnected in modern business research because both focus on intelligent decision-making in competitive and uncertain environments. AI enables machines to learn from large datasets, identify hidden patterns, and make predictions, while Game Theory provides a mathematical framework for analyzing strategic interactions among rational decision-makers. The integration of these two fields allows organizations to develop adaptive business strategies that improve market performance, optimize resource allocation, and respond effectively to competitors' actions.

In competitive markets, firms continuously adjust their pricing, production, advertising, and innovation strategies according to competitors' decisions. AI algorithms such as reinforcement learning, deep learning, and multi-agent systems use Game Theory principles to simulate these interactions and identify optimal strategies. Unlike traditional models that assume static environments, AI-based game-theoretic models continuously update decisions by learning from new market information. This dynamic capability enables firms to maintain sustainable competitive advantages in rapidly changing business environments.

The strategic interaction between two competing firms can be represented through the payoff function:

$$U_{i(s_i, s_j)} = R_{i(s_i, s_j)} - C_{i(s_i)}$$

where U_i denotes the utility (profit) of firm i, R_i represents the revenue generated under strategy s_i considering the competitor's strategy s_j, and C_i denotes the corresponding operational cost.
The optimization objective is:
max $U_{i(s_i,s_j)}$.
The concept of Nash Equilibrium remains fundamental in AI-driven competitive decision-making:

$$U_{i(s_i*,s_j*)} \geq U_{i(s_I,s_j*)} \text{for all s\_i.}$$

Reinforcement learning updates decisions using the Bellman equation:

$$Q(s,a) = Q(s,a) + \alpha[r + \gamma\, max\, Q(s',a') - Q(s,a)]$$

where α is the learning rate, r is the immediate reward, and γ is the discount factor.
AI predicts competitors' actions using:

$$\mathrm{P(A_i)} = \frac{\mathrm{e^{\beta U_i}}}{\mathrm{e^{\beta U_k}}} \Sigma\, \mathrm{e^{\beta U_k}}$$

Consequently, the integration of Artificial Intelligence with Game Theory significantly enhances strategic planning, competitive intelligence, dynamic pricing, supply chain optimization, and market forecasting. Organizations employing AI-driven game-theoretic models can make faster, data-driven decisions, improve profitability, and strengthen long-term market performance in increasingly competitive business environments.

RESULT AND DISCUSSION

The findings indicate that game theory plays a significant role in shaping competitive business strategies and improving market performance by enabling firms to anticipate competitor behavior and make informed strategic decisions. Organizations that incorporate game-theoretic principles into pricing, product differentiation, market entry, and resource allocation demonstrate greater adaptability in dynamic and competitive markets. The analysis suggests that strategic interactions among firms are not solely determined by internal capabilities but are also influenced by the expected responses of competitors, customers, and other market participants.
The results further reveal that businesses adopting cooperative and non-cooperative game-theoretic models achieve different strategic outcomes depending on market conditions. Cooperative approaches, such as strategic alliances and joint ventures, contribute to improved innovation, resource sharing, and long-term market sustainability. Conversely, non-cooperative strategies encourage firms to enhance operational efficiency, optimize pricing decisions, and strengthen competitive positioning. The findings also show that repeated interactions among competitors promote trust, reduce uncertainty, and encourage stable market relationships, leading to sustained organizational performance.
From a market performance perspective, the application of game theory positively influences profitability, market share, customer retention, and strategic flexibility. Firms that accurately predict competitor reactions are better positioned to avoid destructive price wars, identify profitable market opportunities, and develop differentiated products that create long-term competitive advantages. Moreover, the integration of data analytics and digital technologies has enhanced the practical application of game-theoretic models by providing real-time market intelligence and supporting evidence-based decision-making.
The discussion highlights that while game theory provides a powerful analytical framework, its effectiveness depends on the availability of reliable market information and realistic assumptions regarding competitor behavior. In highly uncertain environments, strategic decisions may be affected by incomplete information and unpredictable market changes. Nevertheless, the overall findings confirm that game theory serves as an effective decision-support tool for organizations seeking to strengthen competitive strategies, improve organizational resilience, and achieve superior market performance. These results reinforce the importance of integrating strategic analytical models into contemporary business planning to support sustainable growth and long-term competitive success.

CONCLUSION

Game theory has become one of the most significant analytical frameworks for understanding strategic interactions in economics and business management. By recognizing the interdependent nature of decision-making, it enables organizations and policymakers to anticipate competitor behavior, evaluate alternative strategies, and improve long-

term outcomes. From pricing decisions and market entry strategies to auction design, supply chain coordination, and international trade negotiations, game theory provides valuable insights into complex competitive environments.

The rapid growth of India's digital economy, driven by e-commerce, telecommunications, fintech, and platform-based businesses, further highlights the practical relevance of game-theoretic approaches. Companies increasingly employ advanced analytical tools, artificial intelligence, and predictive algorithms to implement strategic models that optimize business performance while responding dynamically to market changes.

Nevertheless, the practical application of game theory is constrained by factors such as imperfect information, behavioral biases, uncertainty, and evolving competitive conditions. Future advancements in artificial intelligence, machine learning, and big data analytics are expected to overcome many of these limitations by enabling more realistic and adaptive strategic models.

In conclusion, game theory is no longer merely a theoretical discipline but a practical decision-making framework that significantly influences economic policy, corporate strategy, and technological innovation. Its integration with emerging digital technologies will continue to shape the future of strategic management and sustainable economic development across industries worldwide.

REFERENCES

1. Chatain, O. (2011). Value creation, competition, and performance in buyer-supplier relationships. Strategic Management Journal, 32(1), 76–102.
2. Chatain, O., & Zemsky, P. (2011). Value creation and value capture with frictions. Strategic Management Journal, 32(11), 1206–1231.
3. Edelman, B. G., & Geradin, D. (2016). Efficiencies and regulatory shortcuts: How should we regulate companies such as Airbnb and Uber? Stanford Technology Law Review, 19, 293–328.
4. Gans, J., & Ryall, M. D. (2017). Value capture theory: A strategic management review. Strategic Management Journal, 38(1), 17–41.
5. Busu, M. (2018). Game theory in strategic management—Dynamic games: Theoretical and practical examples. Management Dynamics in the Knowledge Economy, 6(4), 645–654.
6. Vasnani, N. N., Chua, F. L. S., Ocampo, L. A., & Pacio, L. B. M. (2019). Game theory in supply chain management: Current trends and applications. International Journal of Applied Decision Sciences, 12(1), 56–97. https://doi.org/10.1504/IJADS.2019.096552.
7. Agi, M. A. N. (2019). Game theory-based research in green supply chain management: A review. IFAC-PapersOnLine, 52(13), 2267–2272.
8. Salcedo-Díaz, R., Ruiz-Femenia, J. R., Amat-Bernabeu, A., & Caballero, J. A. (2021). A cooperative game strategy for designing sustainable supply chains under the emissions trading system. Journal of Cleaner Production, 285, 124845.
9. Kalantari-Kohbanani, S. S., Esmaeili, M., Cárdenas-Barrón, L. E., Tiwari, S., & Shaikh, A. A. (2021). A sustainable closed-loop supply chain in a two-period: A game theory approach. European Journal of Industrial Engineering, 15(2), 226–249.
10. Jin, M., Zhang, X., Xiong, Y., & Zhou, Y. (2021). Implications of green optimism upon sustainable supply chain management. European Journal of Operational Research, 295(1), 131–139.