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Commercial Power and Public Health: A Power–Influence Matrix Analysis of Snackification in India

Om Prakash Bera[1], Pradeep Aggarwal[2], Krupal Joshi[3]

[1] Regional Advisor Asia, Global Health Advocacy Incubator.

[2]Department of Community Medicine, All India Institute of Medical Sciences, Rishikesh.

[3]Department of Community and Family Medicine, All India Institute of Medical Sciences, Rajkot.

CORRESPONDING AUTHOR

Om Prakash Bera, Regional Advisor Asia, Global Health Advocacy Incubator.

Email: dromprakashberapgi@gmail.com

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ABSTRACT

Background: India is experiencing a rapid dietary transition characterized by increasing consumption of ultra-processed foods, commonly described as "snackification." While its health consequences are well documented, limited attention has been paid to the underlying power structures shaping food environments and policy responses. This study examines stakeholder dynamics influencing snackification through a power–influence lens. **Methods:** A qualitative, document-based stakeholder analysis was conducted using a Power–Influence Matrix framework. Publicly available documents from 2014 to 2024—including policy reports, regulatory drafts, stakeholder submissions, and academic literature—were systematically reviewed to identify key actors involved in food systems and nutrition policy in India. Stakeholders were categorized based on their relative power (capacity to shape policy outcomes) and influence (engagement in policy processes) and mapped across a matrix. Thematic analysis was used to interpret stakeholder relationships and governance dynamics. **Results:** The analysis revealed significant asymmetries in stakeholder power and influence. Food industry actors and regulatory institutions occupied the high power–high influence quadrant, reflecting substantial control over policy processes. Civil society and academic actors demonstrated high influence but limited power, constraining their ability to translate advocacy into policy change. Consumers, particularly children and adolescents, were positioned in the low power–low influence quadrant despite being disproportionately affected. Persistent delays in regulatory measures, including front-of-pack labelling, were linked to competing interests, institutional constraints, and concentrated commercial power. **Conclusion:** Snackification in India is shaped by structural and political-economic forces that extend beyond individual behaviour. Addressing its public health implications requires rebalancing stakeholder power, strengthening regulatory autonomy, and mitigating the influence of commercial actors within policy processes. A Power–Influence Matrix approach provides a valuable framework for understanding and addressing governance challenges in food systems.

KEYWORDS

Snackification; Ultra-processed foods, Commercial determinants of health, Stakeholder analysis, Nutrition policy, Food systems.

INTRODUCTION

India is undergoing a rapid and complex nutrition transition, marked by a shift from traditional, minimally processed diets toward increased consumption of energy-dense, ultra-processed foods [1,2]. This transition is driven by structural changes including urbanization, rising incomes, globalization of food supply chains, and expansion of modern retail systems [3]. Within this evolving landscape, the phenomenon of "snackification"—characterized by the increasing replacement of conventional meals with frequent consumption of packaged, ready-to-eat food products—has emerged as a defining feature of contemporary dietary behaviour [4].

Snackification reflects not only changing consumer preferences but also a reconfiguration of food environments. Ultra-processed foods are increasingly accessible, affordable, and aggressively marketed across diverse population groups, including children and adolescents [5]. These products are typically high in salt, sugar, and unhealthy fats, and their consumption has been strongly associated with the rising burden of obesity and diet-related non-communicable diseases (NCDs) in India [6,7]. The country now faces a dual burden of malnutrition, wherein persistent undernutrition coexists with a growing epidemic of overweight and obesity, particularly in urban and peri-urban settings [8].

While individual dietary choices are often emphasized in public discourse, there is increasing recognition that such behaviours are shaped by broader systemic forces. The framework of the commercial determinants of health (CDoH) highlights the role of private sector actors in

influencing health outcomes through product formulation, marketing strategies, pricing, and policy engagement [9,10]. In the context of food systems, large food and beverage corporations exert substantial influence over both supply chains and consumption patterns, often shaping regulatory environments in ways that may not align with public health objectives.

In response to the rising burden of diet-related NCDs, India has initiated several policy efforts aimed at improving food environments. These include proposals for front-of-pack labelling (FOPL), restrictions on marketing unhealthy foods to children, and discussions around fiscal measures such as taxation of sugar-sweetened beverages [11,12]. However, progress in implementing these interventions has been uneven and, in some cases, significantly delayed. The prolonged evolution of FOPL regulations, marked by multiple revisions and stakeholder consultations, illustrates the complexity of balancing public health priorities with economic and commercial interests [13].

These challenges underscore the need to move beyond traditional epidemiological analyses and examine the governance and power structures that shape food policy. Understanding who holds power, who influences decision-making, and how these dynamics interact is critical for explaining policy inertia and identifying pathways for reform.

The Power–Influence Matrix offers a systematic approach to stakeholder analysis by categorizing actors based on their ability to shape outcomes (power) and their level of engagement or interest in the issue (influence) [14]. Despite its widespread application in policy and management research, its use in analysing food systems and nutrition policy in India remains limited.

This study aims to address this gap by conducting a qualitative, document-based stakeholder analysis using a Power–Influence Matrix framework to map the actors shaping snackification and related policy processes in India. By integrating insights from political economy and the commercial determinants of health, the study seeks to elucidate the structural drivers of food environment transformation and provide actionable evidence for strengthening public health governance.

Material & Methods

Study Design: This study employed a qualitative document-based stakeholder analysis to examine the distribution of power and influence shaping snackification and related food policy processes in India. The analysis was guided by a Power–Influence Matrix framework, a widely used tool in policy and systems research to map stakeholders based on their relative authority and engagement, and informed by the commercial determinants of health (CDoH) perspective, which emphasizes the role of private sector actors in shaping health outcomes through market and policy mechanisms [9,10,14].

Study Scope and Context:

The study focused on the Indian food system, with particular emphasis on policy domains influencing the production, marketing, and regulation of ultra-processed foods. Key areas of interest included:

- Front-of-pack labelling (FOPL).
- Food marketing and advertising practices.
- Regulatory frameworks governing food safety and standards.
- Fiscal and policy measures targeting unhealthy food consumption.

Data Sources and Document Selection:

A structured review of publicly available documents was conducted to identify relevant stakeholders and characterize their roles, positions, and interactions within food policy processes.

Data sources included:

- National policy documents, regulatory drafts, and guidelines.
- Stakeholder consultation reports and public submissions.
- Industry reports and official statements.
- Publications from civil society and advocacy organizations.
- Peer-reviewed literature on food systems and nutrition policy.
- Media reports covering key policy developments and debates.

Documents published between 2014 and 2024 were included to capture recent developments, particularly in relation to ultra-processed foods and FOPL.

Inclusion criteria:

- Relevance to food systems, nutrition policy, or snackification.
- Explicit or implicit reference to stakeholder roles, actions, or positions.
- Contribution to understanding policy processes, regulatory developments, or governance dynamics.

Exclusion criteria:

- Documents lacking substantive information on stakeholder engagement.
- Duplicate or non-credible sources.

Document selection followed an iterative and purposive approach, allowing refinement of sources as new stakeholders and themes emerged.

Stakeholder Identification and Classification:

Stakeholders were identified through systematic extraction from selected documents and categorized into six primary groups:

- Government and regulatory bodies.
- Food and beverage industry actors.
- Civil society and consumer advocacy organizations.
- Academic and research institutions.
- Media and marketing entities.
- Consumers and community groups.

Stakeholder identification was iterative, with cross-referencing across multiple documents to ensure completeness and consistency.

Analytical Framework*: Power–Influence Matrix:*

Stakeholders were mapped using a Power–Influence Matrix, defined by two analytical dimensions:

A. Power: The capacity of a stakeholder to shape policy outcomes, assessed through indicators such as:

- Regulatory or institutional authority.
- Financial resources and market share.
- Political access and decision-making leverage.

B. Influence (Interest/Engagement): The degree of active involvement in shaping policy discourse and processes, assessed through:

- Participation in consultations and policy debates.
- Advocacy and lobbying activities.
- Visibility in public and media discourse.

Scoring and Mapping Approach:

A qualitative scoring framework was developed to enhance analytical transparency:

- Each stakeholder was assigned a relative classification (low, medium, or high) for both power and influence dimensions.
- Scoring was based on triangulation of evidence across multiple data sources.
- In cases of uncertainty, conservative classification was applied to minimize overestimation.

Stakeholders were subsequently positioned within a 2×2 matrix, comprising High Power–High Influence, High Power–Low Influence, Low Power–High Influence, Low Power–Low Influence.

Data Analysis: A thematic analysis approach was employed to interpret stakeholder dynamics and contextualize their positions within the matrix. Key analytical themes included:

- Concentration and consolidation of commercial power.
- Regulatory capacity and institutional constraints.
- Alignment and conflict among stakeholder interests.
- Policy inertia and contested regulatory processes (e.g., FOPL development).

Thematic findings were integrated with matrix positioning to generate a combined visual and narrative representation of stakeholder relationships.

Ethical Considerations: This study utilized secondary data from publicly available sources and did not involve human participants.

RESULTS

Overview of Stakeholder Landscape: The analysis identified a diverse and asymmetrical stakeholder ecosystem shaping snackification and related food policy processes in India. A total of six major stakeholder groups were mapped, revealing significant disparities in both power (capacity to shape policy outcomes) and influence (engagement in policy discourse and processes).

Overall, the findings indicate a concentration of power among commercial actors and regulatory institutions, contrasted with relatively limited power among public health-oriented stakeholders despite their active engagement.

Power–Influence Matrix Distribution;

A. High Power – High Influence: Dominant Policy Actors.

This quadrant was primarily occupied by:

- Food and beverage industry actors (multinational and domestic corporations).
- Government regulatory bodies, particularly the Food Safety and Standards Authority of India.
- Key ministries involved in food regulation, trade, and economic policy.

These stakeholders demonstrated substantial control over both policy design and implementation. Industry actors exert influence through financial resources, market dominance, supply chain control, and strategic participation in policy consultations. Their engagement in regulatory processes—particularly through formal submissions and technical consultations—positions them as key actors in shaping policy narratives [11].

Regulatory bodies possess formal authority to design and enforce food standards. However, their position within this quadrant reflects a dual role: while they are central to advancing public health regulations, they also operate within a broader governance ecosystem influenced by economic priorities, industry engagement, and inter-ministerial coordination.

B. High Power – Low Influence: Structural Power with Limited Visible Engagement.

Stakeholders in this quadrant included:

- Trade and commerce-related government entities.
- Industry associations and business bodies.

These actors possess substantial structural or economic power, including the ability to influence trade policy, investment flows, and regulatory environments. However, their direct engagement in public health discourse appears limited or indirect.

Their influence is often exerted through institutional channels rather than public advocacy, shaping policy outcomes behind the scenes, particularly in areas where economic and public health priorities intersect.

C. Low Power – High Influence: Advocacy and Knowledge Actors.

This quadrant comprised:

- Civil society organizations and consumer advocacy groups.
- Public health researchers and academic institutions.

These stakeholders are actively engaged in shaping policy discourse through:

- Evidence generation.
- Sensitization campaigns.
- Participation in consultations.

Despite their high level of influence in framing narratives, their limited access to decision-making power constrains their ability to translate advocacy into concrete policy outcomes [12].

This imbalance is particularly evident in debates around front-of-pack labelling (FOPL), where public health actors have consistently advocated for stronger, interpretive labelling systems, yet face resistance and delays in policy adoption.

D. Low Power – Low Influence: Marginalized Stakeholders.

Consumers—especially children and adolescents—were positioned in this quadrant. Despite being the primary targets of snackification and the most affected by its health consequences, they have minimal agency in influencing food environments or policy decisions.

This reflects a broader structural issue wherein those most impacted by unhealthy food systems are least represented in governance processes.

Thematic Findings;

1. Concentration of Commercial Power in Food Systems: The analysis reveals a high concentration of power among food industry actors, driven by their financial capacity, market reach, and strategic positioning within supply chains. These actors play a central role in shaping product availability, pricing strategies, marketing practices and consumer preferences.

Their active participation in policy consultations further reinforces their influence in regulatory processes, often enabling them to shape or delay policy measures perceived as restrictive [13].

2. Policy Inertia and Regulatory Delays: A key finding is the persistence of policy inertia, particularly in the implementation of regulatory measures such as FOPL. The prolonged evolution of FOPL frameworks in India reflects competing stakeholder interests**,** technical debates over labelling formats and negotiation between public health objectives and industry concerns.

This inertia highlights the challenges of advancing public health policy in environments characterized by asymmetric power dynamics [8,13].

3. Asymmetry Between Commercial and Public Health Interests: The Power–Influence Matrix illustrates a clear imbalance between commercially driven actors and public health stakeholders. While industry actors occupy positions of both high power and influence, civil society and academic actors remain structurally constrained.

This asymmetry limits the effectiveness of advocacy efforts and contributes to delays in the adoption of evidence-based interventions.

4. Fragmented Governance and Institutional Constraints: Regulatory processes are influenced by fragmented governance structures, involving multiple ministries and agencies with differing priorities. This fragmentation can dilute accountability, slow decision-making and create opportunities for competing interests to shape outcomes.

As a result, regulatory bodies may face constraints in implementing strong public health measures, even when evidence is available.

5. Limited Representation of Consumer Interests: The marginal positioning of consumers highlights a critical gap in food systems governance. Despite increasing awareness of diet-related health risks, consumer voices remain underrepresented in policy processes.

This lack of representation is particularly concerning given the targeted marketing of ultra-processed foods to vulnerable populations, including children and adolescents.

The Power–Influence Matrix reveals that snackification in India is shaped by a complex interplay of commercial power, regulatory authority, and advocacy efforts, with clear imbalances favouring industry actors. These dynamics contribute to policy delays, regulatory compromises, and limited progress in transforming food environments.

DISCUSSION

This study provides a structured analysis of the stakeholder landscape shaping snackification in India, revealing pronounced asymmetries in power and influence that have significant implications for public health governance. By applying a Power–Influence Matrix framework, the findings move beyond descriptive accounts of dietary transition to highlight the political economy underlying food systems transformation.

A central finding is the dominance of commercial actors within the high power–high influence quadrant, underscoring the critical role of the food industry in shaping both consumption patterns and regulatory environments. This aligns with the broader literature on the commercial determinants of health (CDoH), which emphasizes how corporate strategies—including product design, marketing, and policy engagement—can systematically influence health outcomes [9,10]. In the Indian context, the expansion of ultra-processed foods is not merely a market phenomenon but reflects strategic positioning by industry actors within policy and governance structures.

The positioning of regulatory bodies alongside industry actors within the same quadrant highlights a more complex dynamic. While regulatory institutions hold formal authority to enact public health measures, their effectiveness is shaped by institutional constraints, competing policy priorities, and engagement with powerful commercial stakeholders. This dual positioning suggests that regulatory processes are not neutral but are embedded within broader political and economic contexts that can influence decision-making trajectories.

One of the most critical insights from this study is the persistence of policy inertia, particularly in the implementation of front-of-pack labelling (FOPL) and related regulatory measures. Despite strong evidence supporting the effectiveness of such interventions, their adoption has been characterized by prolonged deliberations and iterative revisions [8,13]. The Power–Influence Matrix helps explain this phenomenon by illustrating how stakeholders with high power can shape, delay, or dilute policy initiatives, especially when such measures are perceived to threaten commercial interests.

In contrast, civil society organizations and academic institutions occupy the low power–high influence quadrant, reflecting their active role in shaping discourse but limited capacity to directly influence policy outcomes. This imbalance highlights a critical gap in governance structures, where evidence generation and advocacy are not adequately matched by decision-making authority. Strengthening mechanisms for inclusive and participatory governance could help bridge this gap and enhance the translation of evidence into policy.

The marginal positioning of consumers—particularly children and adolescents—within the low power–low influence quadrant raises important ethical and policy concerns. These groups are disproportionately targeted by marketing strategies promoting ultra-processed foods, yet remain largely excluded from policy processes. This disconnect underscores the need for rights-based

approaches that prioritize the protection of vulnerable populations in food systems governance.

The findings of this study are consistent with global evidence demonstrating that imbalances in stakeholder power can undermine the implementation of effective public health interventions [6,14]. However, the Indian context presents unique challenges, including fragmented governance structures, rapid market expansion, and diverse socio-economic conditions, which further complicate regulatory efforts.

Policy and Practice Implications: The study highlights several key priorities for strengthening public health governance in the context of snackification:

- Rebalancing stakeholder power: Enhancing the role of public health institutions and civil society in decision-making processes.
- Strengthening regulatory autonomy: Ensuring that regulatory bodies can operate independently of undue commercial influence.
- Accelerating implementation of FOPL: Moving from prolonged consultation to evidence-based policy action.
- Regulating marketing practices: Regulating marketing practices, particularly targeting children and adolescents.
- Improving accountability mechanisms: Increasing transparency in stakeholder engagement and policy formulation.

Conclusion

Snackification in India represents more than a shift in dietary behaviour; it reflects a reconfiguration of food systems shaped by unequal distributions of power and influence. Addressing its public health consequences requires moving beyond individual-level interventions toward systemic governance reforms that prioritize health over commercial interests.

A Power–Influence Matrix approach offers valuable insights into these dynamics, highlighting the need to rebalance stakeholder roles, strengthen regulatory frameworks, and ensure that public health considerations are central to food policy. Without such efforts, the trajectory of snackification is likely to continue reinforcing existing health inequities and contributing to the growing burden of non-communicable diseases.

Recommendation

Addressing snackification in India necessitates a shift toward structural governance reforms that rebalance stakeholder power and safeguard regulatory autonomy from commercial influence. Prioritizing the timely implementation of evidence-based measures—particularly interpretive front-of-pack labelling—alongside stringent regulation of marketing practices targeting vulnerable populations is critical. Strengthening intersectoral policy coherence, institutionalizing meaningful participation of civil society and consumers, and deploying fiscal instruments to discourage ultra-processed food consumption will be central to realigning food systems with public health objectives and mitigating the commercial determinants of health.

Limitation of the Study

This analysis is subject to several limitations. First, reliance on publicly available documents may not capture informal or undocumented channels of influence, including lobbying and behind-the-scenes negotiations. Second, stakeholder classification involves interpretive judgment, although systematic criteria and triangulation were applied to enhance consistency and rigor. Finally, the dynamic nature of policy processes means that stakeholder positions may evolve over time.

Relevance of the Study

This study contributes to the literature by applying a structured stakeholder analysis framework to examine food systems governance in India, integrating perspectives from political economy and the commercial determinants of health. The use of a Power–Influence Matrix provides a systematic and replicable approach to analysing stakeholder dynamics.

Authors Contribution

All authors have contributed equally.

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Nil.

Conflict of Interest

There are no conflicts of interest.

Declaration of Generative AI and AI Assisted Technologies in the Writing Process

The authors haven't used any generative AI/AI assisted technologies in the writing process.

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