

RESEARCH

Open Access



“Games being played”: a US exploration of market strategies used by the beverage industry as experienced by food retailers

Megan R. Winkler^{1*}, Cerra C. Antonacci¹, Angela Y. Zhang¹ and Melissa N. Laska²

Abstract

Background The beverage industry’s role in undermining nutrition-related population health is a growing global concern. Industry strategies that affect policy, science, and public opinion are increasingly exposed. However, those used in the retail space—known as market strategies—remain largely unspecified. The purpose of this study was to uncover the market strategies beverage companies use with US retailers to secure their influence and control in the primary setting where the public purchases their products—food retail.

Methods We conducted a qualitative study based on multiple data sources: 49 interviews with industry insiders, including chain retail managers, independent store owners, and sales representatives and distributors of major food and beverage companies; 15 business files shared by participants, including written beverage marketing agreements and contracts; and 27 purposively sampled, publicly-available industry documents. All data were thematically analyzed.

Results We identified that beverage agreements, which dictate the products, space, marketing, and prices of company products in retail settings, are universal regardless of the retailer’s market size. While ubiquitous, the agreement terms, services, and treatment beverage companies provided varied widely—with large US retail chains receiving superior opportunities, such as financial incentives and additional services, and independent and small chain retailers often experiencing disadvantaged, more expensive, non-negotiable terms. Despite this, companies also used several strategies that diminished concerns of differential treatment and thus effectively managed their reputation among independent and small chain retailers.

Conclusions Findings suggest a use of the consolidated power among beverage companies with significant implications for the healthfulness of food retail settings. We conclude by highlighting key policy and legal targets that could be leveraged in the US to address power imbalances in the retailer-beverage company relationship and ultimately shift retail towards promoting public health.

Keywords Sugar-sweetened beverages, Commercial determinants of health, Market power, Market strategy, Beverage industry, Advertising and promotion, Beverage marketing agreements

*Correspondence:

Megan R. Winkler
megan.winkler@emory.edu

¹Department of Behavioral, Social, and Health Education Sciences, Rollins School of Public Health, Emory University, 1518 Clifton Rd, Atlanta, GA 30322, USA

²Division of Epidemiology and Community Health, School of Public Health, University of Minnesota, 1300 S. 2nd Street, Minneapolis, MN 55454, USA



© The Author(s) 2024. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article’s Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article’s Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

Background

Poor diets related to excessive sugar-sweetened beverage intake continue to be a significant burden across the globe [1, 2]. The beverage industry's role in producing this burden is increasingly highlighted in public health research. Under the commercial determinants of health (CDoH) framework, scholars have aimed to uncover the market and non-market strategies industries use to advance their products, solidify their dominant market shares, and expand their profits [3, 4], which also have implications for health. Most of the CDoH work on the packaged beverage industry has examined non-market strategies [5], such as corporate political activity [6–8] and the influence on science [9] and health professions [10], which target the political, regulatory, and ideological systems to create a more favorable market environment for their company [11]. In comparison, *market strategies* are used by companies to increase their commercial performance within the market environment [11] and to date only a few practices, such as product reformulation [12] and targeted consumer marketing [13–15], have been robustly examined. Evidence on the wider collection of market strategies used by firms unfortunately remains limited due, in part, to protections given to proprietary information. However, to buffer further ill effects from the beverage industry, it remains important to expose and understand these market tactics.

Beverage companies operate as transnational companies, however, the regulatory and social-political contexts that they operate within are often country-specific. In the US, there has been renewed interest in understanding the ways food and beverage companies and retailers limit overall market competition and discriminate against players with fewer resources. For instance, the US Federal Trade Commission (FTC) recently launched an investigation into potential pricing discrimination by Coca-Cola and PepsiCo across different retailers [16]. (Coca-Cola has issued a statement denying any unlawful activity [17]). Such a strategy would be illegal under a 1936 federal law, but for decades has gone mostly unenforced [18], perhaps due to non-market strategies of corporate influence on governments [3]. Further, in 2021, the Presidential Administration issued an executive order [19] and request for public comment [20] to investigate the concentrated market power among US retailers and understand whether certain food industry practices are anti-competitive, inhibiting the success of small businesses and startups, among other outcomes. The order has resulted in a variety of government reports, initiatives and responses (e.g., revised FTC guidelines), which have been outlined by Breed and colleagues [21].

As highlighted in a recent review of market strategies used by food and beverage companies, companies consolidate their power and strengthen their profits by

leveraging “power asymmetries within the market environment, especially over consumers... and small-scale retailers” (p.13) [5]. One particular market strategy gaining public health attention is the private business agreements between companies and retailers, known as slotting contracts or beverage marketing agreements [13, 22–24]. Such legally binding agreements are used to ensure that company products are marketed (e.g., placed, priced) in the retail setting in a way that best supports company interests (i.e., promotes consumer purchasing). They are widely known to exist across multiple product categories, like food, beverages, and tobacco, however, public data on these are essentially nonexistent as terms are privately negotiated [25–28]. Moreover, such agreements have been critiqued as being anti-competitive [5, 13, 29–31] as they allow companies to dominate the category space and dictate which products are presented to consumers. This leaves little opportunity for beverages from smaller companies, including potentially healthier options, to enter the market and build consumer demand.

Despite growing interest in the presence and impacts of food and beverage marketing agreements, much remains to be understood about these written agreements. For instance, questions remain on how common these are among US food retailers—beyond their known presence in supermarkets and grocery stores [25, 27, 28]—and what the specific terms are within these contracts. This is because evidence on US beverage marketing agreements to date has been limited to an investigative journalism report [29], self-reports among independently owned retailers [22, 23] or a single decade-old agreement for a three-store chain available in an industry document archive [32]. Such restricted evidence highlights the significant challenges in accessing these documents or speaking with those who engage in their development, negotiations, or implementation. Relatedly, evidence to date has not been positioned to understand how agreements and treatment from beverage companies differ, if at all, depending on the retailer's market size. A prior study by Gittelsohn and colleagues has suggested prejudicial treatment by food and beverage suppliers among independent convenience stores [23], but is unclear if this extends to beverage agreement terms and their negotiations. Further, as information and perspectives from large chain retailers has been highly constrained, a proper comparison has not been performed.

Given these gaps, we explored the market strategies that beverage companies use towards retailers of different market sizes that allow them to secure their power and influence in the US retail setting which have impacts for public health. We gained this insight by conducting interviews with industry insiders from both retail and food and beverage companies, analyzing business files, and purposively sampling additional industry documents.

Uncovering the potential misuse of market-based power among food and beverage companies may be an important strategy to identify feasible policy and legal targets that can address power imbalances and thus shift the current status quo in US retail to one that promotes rather than undermines population health.

Methods and analysis

We centered this qualitative study on the market strategies used by beverage companies among retailers in the US context. In the US, the packaged beverage market is dominated by only a few companies, including Coca-Cola, PepsiCo, and Keurig Dr. Pepper (KDP) [33, 34], and their top-selling products [35–37] are widely recognized as leading contributors to unhealthy diets and diet-related diseases [38–40]. Our study was conducted according to the guidelines laid down in the Declaration of Helsinki, which specifies ethical principles for health research involving human subjects [41], such as ensuring study participant respect and developing a clear, well-justified research protocol. All study procedures, including recruitment and data collection methods involving human participants, were approved by the Emory University Institutional Review Board (Protocol STUDY00002768). Every human participant provided consent to participate prior to the interview.

We conducted in-depth interviews with participants representing different industry and retailer roles to obtain a range of perspectives on retail business decision-making and the strategies companies and retailers use to shape the retail space. We purposively recruited a convenience sample of independent retail owners, food and beverage category managers of chain retail stores (i.e., employees who manage a specific product category across all retail sites within a chain), and distributors and sales representatives of major food and beverage and wholesale companies (i.e., employees who directly and regularly interact with retailers as part of their role). Given the challenges to reach these diverse groups and that few prior studies have successfully done so, a multi-modal recruitment strategy was required and involved in-person field recruitment, snowball sampling, referrals from academic and industry colleagues, and connections through social media platforms (e.g., LinkedIn). We also notified participants that identifiable information about themselves and stores would not be disclosed. Additional details can be found in Zhang et al. [42].

Descriptive characteristics of the 49 participants are in Table 1. Participants were employed by or interacted with the top-performing beverage companies in the US [33, 43], such as Coca-Cola, PepsiCo, KDP, and Red Bull. Participants also had wide ranging breadth in the number of retail sites they were familiar with, which ranged from 1 (independent owner) to more than 750 (District

Merchandizing manager), indicating their scope of knowledge around industry market strategies used among retailers.

Interviews were conducted from October 2021 to November 2022 either in-person or virtually, lasted approximately 60–120 minutes, and were recorded. Immediately following, each recorded interview was transcribed by a third-party vendor and checked by the interviewer to the original recording for accuracy. All participants were asked about the process companies and retailers used to get products to consumers, their relationships and interactions, and the decisions involved for product placement, price, and promotion. However, interview guides were tailored to each participant group given their unique roles and responsibilities (e.g., manages all aspects of a store, visits several stores to place beverage orders) and their experience and knowledge about written beverage marketing agreements. For instance, distributors had limited interactions with store managers and knew very little about written agreements often directing us to speak with the sales representative. We also explicitly asked about food and beverage marketing agreements and asked participants to share copies of these and other business files, including planograms and overviews of beverage company programs. Participants shared 15 documents relevant to beverage company market strategies.

Following data collection with industry and retail informants, we decided to purposively sample supplementary information ($n=27$ documents) on beverage companies and the convenience industry. This information was sought to provide additional context to the specific market strategies described by participants and identified in shared written beverage agreements. Specifically, we collected category management handbooks used in the convenience store industry and publicly available files from a third-party negotiator of beverage agreements between retailers and beverage companies. The publicly available files included podcasts and blogs targeted to retailers to clarify the value of the negotiators' services and allowed further insight into beverage industry trends and norms.

All 91 documents, consisting of 2,296 pages of text, were coded in Atlas.ti (version 23) and analyzed using Braun & Clarke's reflexive thematic analysis approach [44]. Their approach was selected as it offered the flexibility of an inductive analysis capable of capturing both explicit (i.e., manifest) and implicit (i.e., latent) meanings in the data offering both descriptive and interpretive accounts. This flexibility was important given the diverse retailer and industry perspectives represented in the dataset, which often needed to be interrogated or reconciled. Additional key principles of their approach are that the researcher is positioned as active, data have been interpreted rather than merely summarized, and

Table 1 Characteristics of industry participants ($n = 49$)

	N (%)
Industry Role	
Major Food & Beverage Company Sales Representative and/or Distributor	15 (31)
Wholesale Company Sales Representative and/or Distributor	8 (16)
Independent Distributor	4 (8)
Chain Store Category Manager	12 (25)
Independent Store Owner/ Manager	10 (20)
Years of industry experience	
1–2 years	7 (14)
3–5 years	14 (28)
6–10 years	7 (14)
10+ years	21 (43)
Store Types ^a	
Convenience Stores	32 (65)
Dollar Stores	13 (27)
Gas-marts	38 (78)
Grocery stores/ Supermarkets	12 (25)
Pharmacies	16 (33)
Other (e.g., Liquor Stores, Gyms, Schools)	9 (18)
Retailer market size ^a	
Large National/ Regional Retail Chain ^b	29 (59)
Small Retail Chain/ Independent Store	44 (90)
Territory (US States) ^a	
Alabama	7 (14)
Florida	5 (10)
Georgia	30 (61)
Louisiana	6 (12)
Mississippi	11 (23)
North Carolina	3 (6)
South Carolina	5 (10)
Tennessee	4 (8)

^a Categories are not mutually exclusive. Participants may have worked across multiple store types, retail market sizes, and/or territories

^b Large chains are retailers with at least 100 US locations but often nationally-recognized retailers with thousands of sites

the theoretical assumptions are explicated. For this last point, we employed a contextualist stance to our analysis knowing that participant language can be used both as a tool for communicating experiences and meaning, but also a social practice to create rather than merely reflect meaning.

We started analysis with data familiarization, identifying multiple points of analytic interest around ways beverage companies influence retail settings. Our coding initially produced over a hundred codes representing a range of company strategies, retailer experiences, and contextual factors. Coders met frequently to resolve differences and share analytic insights. Clustering codes helped reduce data into broad patterns of meaning, and for this analysis, we focused on the variation identified in the market strategies companies used towards large national retailers versus smaller chains and independents. These initial patterns were then comprehensively reviewed in relation to the coded data, resulting in additional coding to refine and capture other meanings in the data. Our position as public health and equity scholars meant we used this lens when coding and interpreting all data—often interrogating accounts of industry tactics for

their potential unfairness and implications for population health. However, we also ensured all interpretations remained grounded to the data by reviewing developed themes to coded raw data, maintaining memos throughout to document interpretive understandings, and holding regular meetings with study members for feedback on analytic insights. Through this recursive and reflexive process and remaining deeply engaged with data extracts, final themes were developed as presented below.

Results

Overview

We identified that beverage agreements are universal across retailers regardless of their market size. These agreements existed for every retailer in our sample that received direct-store delivery and servicing (DSD) by beverage companies, which included product delivery, stocking, ordering, and merchandizing in exchange for retailers providing a pre-specified space for beverage company products at a pre-specified retailer price. While ubiquitous, the agreement terms, services, and treatment beverage companies provided retailers varied widely. Below, we describe this variation by first illustrating

how beverage companies appear to prioritize large retail chains and then contrast this to the differential—often disadvantaged—treatment provided to small chains and independents. Large chains are those with at least 100 US

locations but are most often nationally recognized retailers with thousands of sites (e.g., 7-Eleven, Wal-Mart, Dollar General). Table 2 summarizes differences among retailers organized by key market strategies, which are

Table 2 Summary of key contract terms, treatment, and services provided by beverage companies that varied across large chains compared to small chains and independents

	Description	Large Chains	Independents and Small Chains
Types of Beverage Agreements	Every retailer who desires services from a beverage company (e.g., a sales representative, stocking, delivery) has an <u>agreement</u> with the company; though the terms and negotiation process varies across retailer market size.	<ul style="list-style-type: none"> Written agreements and the terms included are vast (up to 35 pages) and highly negotiable. 	<ul style="list-style-type: none"> Must pick from a finite set of 3–4 options, known as ‘beverage programs.’ Programs are often tiered where the retailer price decreases as the volume or dedicated retail space increases. Independents reported receiving no copies of the agreement after they enrolled.
Retailer Prices	<u>Retailer prices</u> are the prices the retailer pays to the company for the product and are part of the written agreement.	<ul style="list-style-type: none"> Retail prices could be as much as 3-times less than what independent retailers paid for the same product. 	<ul style="list-style-type: none"> Retail prices were always more than large chains and significantly more (e.g., \$10–12 higher per case) for those who opted to not be on a beverage program—often forcing the decision to join a program.
Financial Incentives	<p>Incentives retailers receive for various consumer marketing aspects (also known as placement fees or trade spend). Can include:</p> <ul style="list-style-type: none"> <u>Shelving allowances</u>: price per facing (i.e., each individual product that faces a customer). <u>Fees</u> for floor displays and open-air case placements. <u>Rebates</u>: money retailers receive after the product is sold. <u>Marketing funds</u>: used to provide customer price promotions. 	<ul style="list-style-type: none"> May receive all incentives, and these can be of significant value (e.g., a chain of ~ 100 locations reported receiving up to \$20,000 from the shelving allowance alone). 	<ul style="list-style-type: none"> Primarily offered rebates (for exclusive products and periods) and some minimal cooler placement incentives (~\$700 annually) to cover additional electric bill costs. If small chains agree to beverage programs with the highest space terms (allocating > 80% of cooler space), they may receive a sign-on bonus (e.g., \$10,000 for each store).
Space Terms	The proportion of <u>shelf space</u> that a company’s products will have for each sub-category (e.g., carbonated soft drinks, sports drinks). Also includes terms about <u>placement</u> (e.g., products at eye-level, in the location with the highest customer traffic).	<ul style="list-style-type: none"> Can implement a ‘space to sales’ model where space is devoted to a given beverage company’s products based on previous product sales. 	<ul style="list-style-type: none"> Only offered to have companies ‘buy space’—where companies provide retailer price discounts for a minimum amount of cooler space (e.g., 50–80%), resulting in one company having the space.
Planograms	<u>Planograms</u> are visual depictions of how company products should be displayed within a retailer given the layout and space terms agreed upon. Product arrangements are intentionally designed to maximize sales.	<ul style="list-style-type: none"> Can negotiate on the planogram and which products to offer based on the ‘space to sales’ model (see above). Planograms are redesigned annually and first developed for the retailer by the beverage company (i.e., category captain), and then negotiated with the retailer and other companies. 	<ul style="list-style-type: none"> Required to follow the company planograms and purchase all brands and products. Planograms change at the company’s discretion with minimal input from retailers.
New Products & Promotion	Companies develop <u>new products</u> each year. Sometimes companies perform ‘force outs’ where every store receives the exact same promotional order for the new product within the exact same time frame.	<ul style="list-style-type: none"> Offered the opportunity to have exclusive periods of new company products before wide retailer distribution. 	<ul style="list-style-type: none"> Not given exclusive periods but are expected to accept all force outs.
Direct-Store Delivery & Servicing (DSD)	Company personnel are sent to each retailer to <u>place orders, deliver, stock, and merchandize</u> company products. Merchandizing can include a range of point of sale (e.g., tags) and other promotions (e.g., signs, displays).	<ul style="list-style-type: none"> Receive DSD as often as needed (up to twice a day). They may also receive exceptional merchandizing & store promotions (e.g., rep books a band to play in the store). 	<ul style="list-style-type: none"> Receive weekly to every other week deliveries. Sometimes go days without product as wait on next delivery.
Company Personnel	DSD teams for companies can include a sales rep, a distributor, and merchandizer. Companies also have <u>key account managers</u> which negotiate agreements and work with retailers to develop plans for product growth and revenue.	<ul style="list-style-type: none"> Provided key account developers and each site in the chain receives multi-member DSD teams. 	<ul style="list-style-type: none"> Those on a beverage program receive a two-member team of a distributor who stocks and a sales rep who orders. Sales reps had frequent turnover (up to every other month).

detailed below. We conclude by describing distinct strategies beverage companies also utilize that appeared to allow them to outmaneuver criticism of differential treatment and simultaneously manage their reputation among independents and small chains (Table 3).

Large chains are beverage companies' top priority

Across the dataset, large chain retailers were consistently identified as beverage companies' top priority and thus received extensive advantages. This was due to large chains' significant market share, which afforded

them substantial ability to negotiate and make requests upon beverage companies. As one beverage representative summarized regarding large chains: *"their mindset is we're going to make money without [your] stuff...[so] this is what [we] want, and you've got to do it like this"* (Sales Representative 1). This negotiation power translated into key advantages for large chains including those written into beverage agreements and those unwritten provided through servicing.

Table 3 Strategies beverage companies use for reputational management with independents and small chains

	Description	Benefit to Retailer	Benefit to Beverage Companies
Use the Language of "Partnership"	Company personnel universally describe their relationships with all retailers as a "partnership" despite the disadvantaged treatment of independent and small chain retailers (see Table 2).	<ul style="list-style-type: none"> Limited, beyond the psychological benefit of feeling valued. 	<ul style="list-style-type: none"> Appear benevolent—as if they have concern for the welfare and interests of independent retailers. Gain trust of independent and small chain retailers without tangible action.
Provide Equipment	Full-size cooler (versus small, free-standing coolers described in Table 2) provided to independent retailers. Retailers must agree to company terms of equipment use and services.	<ul style="list-style-type: none"> <i>"Rather than having to spend seven to \$12,000 on a cooler, ... it's coming at no cost from Pepsi or Coke"</i> (Public File 15) 	<ul style="list-style-type: none"> Additional access and <i>"display opportunities for consumers to buy [our products]"</i> (Sales Representative 10) Control over what products can be placed in it (explicitly prohibits competitors) Additional opportunity to market to consumers through branded imagery Justification for longer contract periods to <i>"amortize the equipment over the agreement term"</i> (Public File 5) Lack of liability for any damages and right to remove at any time for any reason
Offer Direct-Store Delivery & Servicing (DSD)	Company provides the retailer with a rep to place orders and a distributor to stock and deliver the product. If out of product before next delivery, retailers are explicitly restricted from re-stocking empty shelves with products they can self-supply from large chains (e.g., Costco).	<ul style="list-style-type: none"> Retailers <i>"don't have to worry"</i> about product orders and stocking (Independent Manager 10) Receive an automatic and (typically) convenient company service 	<ul style="list-style-type: none"> Direct control over the consumer experience via managing each retailer's product orders, planograms, and promotions Opportunity to complete this work as it best suits their needs and resources, and in some cases allow reps to exploit this control to their benefit (See <i>Treated as Non-Priority</i> sub-theme)
Ensure Acceptable Retail Margins	The mutually agreed upon percent profit the retailer can make off the consumer price. This varies for each beverage product but typically ranges between 35–40% and is often explicitly listed in the agreement.	<ul style="list-style-type: none"> Retailers believe they receive a <i>"proper margin"</i> and understand anything > 45% is non-negotiable—<i>"nothing over that"</i> (Independent Manager 7) 	<ul style="list-style-type: none"> <i>"Controlling the market retail"</i> (Chain Manager 4) through largely universal pricing <i>"Maybe dime more, dime less somewhere else, but not much."</i> (Independent Manager 7) They achieve this by persuading retailers to fit in their target range (i.e., explain they will increase the retailer price if the retailer wants their consumer price above the company's range)
Exclusive Perk & Loyalty Programs	Limited-time personal rewards program exclusive to independent owners on a beverage program. Based on the amount of products retailers' order, they can receive points to redeem for rewards.	<ul style="list-style-type: none"> Rewards include <i>"valuable," "unique,"</i> and <i>"hand-selected"</i> items (Public File 1). Example rewards include personal-use electronics, gift cards, and sports apparel. 	<ul style="list-style-type: none"> Provide financially constrained benefits that are irrelevant to the retailer's business and bottom line. Write participating rules to maintain complete control (e.g., <i>"The company reserves the right to change these program rules at any time with or without prior notice"</i>) and shift all responsibility to the retailers (e.g., <i>"Use of the [Reward Program] Website is at user's own risk"</i>) (Public File 1). Appear benevolent
Engage with Independent Retailer Associations	Local and regional associations of independent retailers have been formed over the past few decades to collectively negotiate with food and beverage companies. Retailers who join are then required to follow all agreement terms the association negotiates.	<ul style="list-style-type: none"> Participating retailers gain marginally better retailer prices and rebates, and as one rep described, <i>"they don't have to have all these other things that we want to get into non- [independent retailer association] accounts."</i> (Sales Representative 13) 	<ul style="list-style-type: none"> Gain a uniform product arrangement and pricing across hundreds to thousands of independent sites. Can significantly limit competitor products by having associations agree to implement the company-developed planograms. One beverage representative explained, <i>"what I found out, [the association] is 'owned' by Coke. So Coke already controls maybe 75% of the store as far as the product, doors, everything"</i> (Sales Representative 13)

Superior agreement terms

Large chains were the beneficiary of vast and superior terms in beverage company agreements. In fact, some large chain managers were hesitant to disclose their incentives and contract terms, as it is known that stores with many locations get better deals,

We've got [over 100] locations. Something that's offered to us may not be offered to somebody that's got 2. And in the same respect, there's things offered to [large national supermarket chain] that we'll never see (Chain Manager 6)

One particularly exceptional contract term was the retailer prices large chains paid to companies for products, as a beverage representative specified,

[two national supermarket chains]... across the board pay lower prices for DSD vendor items than anyone else...Independents pay the highest margins. Our production cost [for one brand] ...was \$2 a case, and we would sell it to [large national supermarket chain] for \$8 a case, and we'd sell it at small format for \$24 a case (Sales Representative 6)

Relatedly, large chains received a long and desirable slate of financial incentives, including shelving allowances, multiple placement and promotional fees, rebates, and marketing funds. The shelving allowances alone could be significant, “anywhere from, you know \$8,000 to \$20,000 depending on what vendor it is” (Chain Manager 2), and participants described that incentives from beverage companies are typically much higher than those from food companies.

Beyond financial compensation, other advantageous aspects of agreements were described. For example, the space terms of beverage company products were often implemented following a space-to-sales model where retailers create “an open playing field where no one [company] has any advantage over another” (Chain Manager 2). This means large chains are allowed to have sales from competing companies drive their retail profits and prevent the typical beverage company approach of buying dominant shelf space to implement their own designed planograms. However, because “an inch of space can affect the entire chain's bottom line by a lot” (Sales Representative 9), large chains are strict on companies following their space-to-sales planograms. Moreover, large chains received beneficial terms around new product launches. For instance, some US national chains were offered the opportunity to have exclusive periods of new products, as one representative described, “like, right now, we're launching a new product, and [large national

supermarket chain] is the first to get it for the first 30 days... before everyone else” (Sales Representative 13).

Favored servicing and treatment

Another major way beverage companies were described as favoring large chains was through their services, personnel, time, and attention that largely fell outside the bounds of agreement terms. There were clear and consistent portrayals of beverage companies prioritizing large chains, as these retailers were referred to as being the “relevant client[s]” (Public File 16) and even one distributor responded to an interview question about his company's mission as, “We strive to be the best delivery. We try and make [name of a national convenience store chain] as happy as it can be” (Distributor 9).

One of the most evident ways beverage companies demonstrated preferential treatment was through DSD, where companies were described to: restructure entire distribution routes to service new retail sites; meet retailer demands of how and when deliveries, stocking, and merchandizing must be performed; have sales team managers constantly emphasize to their teams the importance of servicing large chains; and, in some cases, provide extreme impromptu store merchandizing such as building an entertainment stage out of cases of product and booking a band to play in the store.

Companies accommodated and favored large chains through other services as well. For instance, planogram redesigns were a particularly resource-intensive endeavor for companies. Beverage companies in the category captain position, which is the best performing vendor in a category who leads the retailer's category management and merchandizing, were responsible for developing the initial planogram; this was then followed by numerous meetings with the chain and all other companies involved to negotiate and validate each company's shelf space and placement. While typically performed on an annual process, some large chains pushed for more frequent intervals “to leverage the big [beverage] companies' research to help make decisions” (Category Management Handbook 4). Similar accommodation was also described during beverage agreement negotiations, as companies allowed chains to lead contract drafting when desired—ranging up to 35 pages in length—and would also be highly responsive when retailers refused the terms. For example, one category manager described when his chain rejected the company's previous agreement, “[the company] came back this year with much better terms that made a whole lot more sense for [us]” (Chain Manager 6).

Given this special and time-consuming treatment, our data included reports of companies also using numerous personnel to attend to large chains, including providing them with unique staff known as key account developers to support contract negotiations and set-up

new locations. Moreover, some companies structured employee salaries based off commission or volume sales; thus, keeping their attention to these high-volume sites. In fact, as one beverage distributor summarized, sales representatives “almost stay in [large chain stores] ... making sure that they’ve got everything that they need” (Distributor 5).

The plight of independent and small chain retailers

Because of the enormous resources beverage companies use to service and negotiate with large chains, our findings indicate that their attention to retailers with smaller market shares is constrained. Moreover, small chains and independents are at the mercy of a significant power dynamic beverage companies can exploit. As multiple participants described, smaller retailers rely more on beverage company products to attract customers rather than companies rely on them to offer products. As one independent manager explained, beverage companies “say you either want our products or you don’t... Because if you don’t sell them, somebody else will... they’re big. They don’t have to care about you” (Independent Manager 9). Compounding the product reliance were the limited resources independents and small chains had to negotiate with “billion-dollar companies” (Public File 18). This included not only a lack of time and personnel, as one independent owner described, “I’m a one person show” (Independent Manager 8), but also a lack of legal and negotiation expertise. Another manager explained,

it’s a big agreement. A lot of things written there, and... I’m not very good in English, so that’s why I didn’t go through the whole agreement... I just signed that. You know, everybody does that (Independent Manager 6)

Accordingly, independent retailers and small chains reported experiencing disadvantaged treatment from beverage companies reflected through written agreements and company servicing as described below.

The ultimatum of beverage programs

In comparison to the favorable and flexible agreement terms large chains received, beverage companies reportedly only offered small chains and independents a finite set of beverage agreement options, often referred to as beverage programs. One independent manager described,

You don’t negotiate for terms. [Companies] just simply tell you what are the terms, and you can accept them or not... they tell you this is what you can have, and you can pick between different tiers. You liter-

ally pick. There’s no negotiation (Independent Manager 9)

Each tiered beverage program has a retailer price dependent on a certain volume or required retail space that as one beverage company representative described, “basically what it boils down to is the more stuff we can have in the store, the better contract you are going to get” (Sales Representative 1). Financial incentives were limited and rare—some retailers were offered a nominal incentive (e.g., \$350 every six months) to place a small energy drink cooler next to the register, while others described, “all they do is give us rebate monies.” (Chain Manager 4). Moreover, respondents described that all agreements had required space terms, such as a minimum number of shelves and/or exclusive placement in high-traffic areas, and some companies also required certain promotional consumer prices (e.g., forced price for multi-buys).

As a result, retailers who agreed to program terms were forced to relinquish their control over consumer marketing. For instance, while retailers could provide “input” on the planogram, multiple representatives described that the final design was largely under the beverage company’s discretion. Retailers were also required to carry all products within a company’s program, and some, such as high-priced waters and sports drinks, were seen by certain independents as being too expensive for their customers; when they expressed this concern, the beverage company replied “if you need our product, you need to keep them. You know, we cannot change this” (Independent Manager 6). Compared to independent retailers, some small chain retailers described a bit more leeway, such as being allowed to tweak planograms (e.g., replace one shelf with a better-performing product for the area) and modify new product requirements (e.g., instead of a full shelf negotiate half a shelf near the door handle in the company’s preferred cooler). While some small chains described “most of the time [companies] don’t press [back] too hard” (Chain Manager 8) on such requests, others described companies as less amenable — “with [Company] there’s no negotiating” (Chain Manager 4).

Ultimately, for independent and small chain retailers who did not want to agree to restricted beverage programs, their only reported option was to decline and consequently lose DSD and accept a higher retailer price. Some described this could be \$10 to \$12 higher per case. As one representative summarized, retailers that do not accept the terms “want to be able to control their store... they want total control, so they pay for total control” (Sales Representative 13). Some retailers believed companies behaved this way due to their fierce competition to have the dominant shelf space in every retailer so “if you’re not on their [beverage] program, they want you to have some pain” (Chain Manager 11). Given only two

companies dominate the US beverage product and distribution market, all independent and small chain retailers in this study ultimately agreed to joining one of the beverage programs.

Treated as a non-priority

Aligning with limited contract options, independent and small chain retailers were also described as receiving disadvantaged services and treatment by beverage companies. Numerous examples of inferior DSD were shared including: drive-by orders where representatives make the next order without coming into the store and observing what had sold, frequent turnover in beverage company personnel servicing the store, not receiving needed deliveries, never consulting with a retailer about what product to order, and broken equipment not being serviced. This neglect was especially prominent for independent retailers with low volume, as one beverage representative described,

I would not spend a lot time in accounts that were not, you know, very good customers [i.e., had good sales] ...because frankly if you had only so much time in a day... I would prioritize my good customers over my bad customers, if you will, and the same thing with delivery drivers and a lot of other parts of the [Company] process (Sales Representative 11)

Similar neglect was also observed when independent retailers wanted to join a beverage program, as they frequently had to initiate contact and at times were ignored—*“They don’t respond to our calls... they don’t consider us a big enough store”* (Independent Manager 9).

Apparent beverage company disrespect was also displayed in other ways. Independent retailers described never receiving written documentation after they signed up for beverage programs—*“there is no paperwork... we don’t sign anything”* (Independent Manager 9). Disrespect was also evoked in the language company representatives used to refer to independents, such as calling them *“difficult”* (Sales Representative 4) or *“a constant struggle”* (Sales Representative 11). At times, the disrespect appeared potentially more discriminatory, such as companies using a different conversational tone *“for low category businessman”* (Independent Manager 6) or representatives disclosing they selectively choose which retailers to offer price discounts. Some representatives even used aggressive language to describe tactics they employ to *“hold the account responsible”* (Sales Representative 11) for beverage program terms, such as providing *“threats”* to increase prices, remove cooler equipment, or end the contract. As one representative explained, some companies would act *“with no hesitation... they won’t just send empty threats”* (Sales Representative 12). In other

instances, the disrespect turned more exploitative, as one small chain manager described how his discounts were purposefully undercut by representatives through over-ordering product the week before a discount was in effect and *“now I’m losing money”* (Chain Manager 8). He elaborated, *“There’s a lot of ways that vendors can manipulate [retail] customers”* and *“games being played”* (Chain Manager 8).

How beverage companies outmaneuver criticism

Given the vast differences in market share, it is reasonable to question beverage companies’ motivations for working with US small chain and independent retailers. While they may not sell large volumes of products, our data suggest that the industry views small chain and independent retailers as a mechanism for strengthening brand loyalty with customers. As industry actors explained, *“much of the [US retail] playing field has already been claimed by one of the beverage companies”* (Public File 6); thus, greater attention has shifted to building brand loyalty *“in small ways”* (Public File 17) to make sure they *“keep sales increasing. So, they’re willing to invest money [and]... effort to increase sales for the small operators”* (Public File 15). Such motivations may seem in contradiction to the differential and disadvantaged treatment described above for independents and small chains. While the industry does appear to exploit the power asymmetry they have with independents, it also appeared that companies wanted to obscure these practices—to help manage their reputations and thus bypass any retribution over differential treatment.

We identified several industry practices, outlined in Table 3, that could distract independent and small chain retailers and create the illusion of partnership. One of the most obvious practices was their frequent use of “partnership” language when referring to all retailers, which appeared hundreds of times in our dataset. For example, as one industry document described, *“having a direct relationship with a business gives the beverage companies the confidence that their partner is appropriately engaged and invested in the partnership”* (Public File 2) and another representative said, *“We can even partner up on a lot of ventures”* (Sales Representative 16). In fact, companies even called the limited option beverage programs offered to independent and small chain retailers by this language, as one sales representative explained these stores can choose between a *“two-year price partnership”* or a *“three-year partnership”* (Sales Representative 1). While partnership may be an accurate characterization of the relationship between large chains and beverage companies, little of their relationship with independent and small chains could be characterized this way (see “The Plight of Independent and Small Chain Retailers” above). Thus, companies appeared to performatively use this

language to make retailers feel respected and ultimately gain their trust.

Beverage companies also performed certain business practices that could further project an image of caring about retailer interests and needs (e.g., such as lack of equipment); however, appeasing retailers on their *surface-level* needs, in fact facilitated a *deeper, more latent* control of what beverage companies really care about—the consumer's retail experience with their products. For example, companies provided independent retailers with a “free” cooler when they signed up for a beverage program (or “partnership”). However, to receive such a “free” piece of equipment, retailers must comply with the written program terms, including allowing the company complete control over the cooler's planogram (i.e., which company products are included and where they are placed), stocking, and marketing. As another example, companies negotiated with independent retailer associations, groups that unite independent retailers to increase collective purchasing power, and thus publicly appeared to value smaller retailers. At the same time, such negotiations allow them to gain control over the consumer experience with the added benefit of potentially using fewer company resources (e.g., agreeing on planograms and pricing at thousands of independent sites through one negotiation). Simply, the benefits gained by the beverage companies (i.e., market power) through these practices appear to greatly outweigh those received by smaller retailers and may go unrecognized as companies effectively distract retailers with immediate benefits.

Discussion

This study found evidence of highly differential market strategies used by beverage companies in their contract terms, services, and treatment across US retailers of different market size. Our findings suggest that beverage companies afforded large national chain retailers superior contract terms, prioritized servicing, and outstanding company treatment. In contrast, independent and small chain retailers were reportedly offered a limited set of more expensive, non-negotiable agreement terms often accompanied with poor servicing and treatment. Independent and small chain retailers agreed to these conditions, as there were no other beverage companies to choose from and customer demand for such products is so high that refusal could risk their business success. Moreover, beverage companies used strategies that appeared to placate retailers and outmaneuver independents' concerns of this disadvantaged treatment while simultaneously gaining greater control over the consumer product experience. Our findings highlight that consolidated power among beverage companies can have notable implications for policy and public health.

Results suggest beverage agreements are a universal phenomenon among US food retailers, regardless of market size. Use of written beverage agreements has been previously documented [13, 22, 45], but its ubiquity across all food retail settings in the US, including independent and small chain retailers, has been underrecognized. Given this, beverage companies have significant control over the presentations of their products (e.g., via planograms, point-of-sale merchandizing) across retailers allowing them to directly design settings to best support their profit margins. With many of their products considered health-harming [35–37], public health implications of this company control are substantial and in direct odds with a key pillar of the US Presidential administration's 2022 strategy [46] to address the nation's hunger, nutrition, and health—to “empower consumers to make... healthy choices” (p. 22) [46]. These findings also raise questions of the degree to which similar market strategies are used among other food companies with products that contribute to poor population health, such as ultra-processed products. Future investigations should work to uncover these, and if similar, could encourage a wider scope of action to address the food and beverage industry at-large.

In addition, having so few companies claiming all the US retail space via these market strategies not only limits any chance of other—healthier—companies and beverage products entering the market and effectively competing, but helps to support industry's non-market strategies. Through written agreements and exploiting the power dynamic with independent retailers and small chains, beverage companies appear to maintain their dominant market positions and limit competition. Their potentially excessive profits may then be directed towards other industry strategies, such as building public and government relations, that can stabilize a regulatory and ideologic environment that supports the very business strategies that allow them to maintain their dominant market positions [3, 5]. In fact, this feedback loop may be one reason why there has been little traction on using legal codes and anti-competition laws among beverage companies in the US to date.

Nonetheless, concerns have been raised about the ways certain market strategies may be in conflict with US anti-competition laws [18, 30, 31] and, in particular, how favorable beverage agreement terms and services offered to large chains may not be offered in proportional terms to smaller businesses [30, 31, 47]. Notably, our data highlights small chain and independent retailers are paying higher retailer prices, receiving inferior incentives and services, and conceding to these as there are no other choices. US legal experts must evaluate whether these practices indeed meet the threshold of competitive injury to smaller retailers and their customers [30]. Our findings

help provide insight into this potential avenue for legal action that could disrupt the beverage industry's control of the retail space and provide an opportunity to shift retail from one that constantly undermines health [5].

Lastly, results from our study indicate that beverage companies may use manipulative tactics with independent retailers to outmaneuver frustrations about their market dominance and poor treatment. Manipulative tactics industry uses towards consumers and the public that can distort their judgment about their actions and products are well-documented [48, 49]. However, in this study, we found similar strategies being used with US independent and small chain retailers that support beverage companies maintaining their power “with little fear of retribution” (p. 102) [50]. These ranged from overtly hostile approaches, including threats of discontinuing service, to more appeasing tactics to neutralize concerns, such as providing cooler equipment and exclusive perk programs. Naming and identifying these tactics is important to not only understand the full slate of market strategies beverage companies have available to improve corporate performance but to understand why those who experience higher prices and inferior services may not report it. We believe this is another line of inquiry that US government authorities could explore for legal implications that can translate into successes for public health.

Strengths and limitations

Our research has important limitations. First, our US focus and convenience sampling approach limits the generalizability of the beverage market strategies identified. While the multi-state perspectives we captured suggest these findings are relevant to beverage industry practices across the US, they may still fail to capture other relevant local and state contexts and certainly neglects the socio-political context of other countries. Relying on industry insiders who agreed to be interviewed also means our analysis is not a comprehensive view of all market strategies and may raise concerns of the accuracy of information obtained from industry insiders. Yet, the consistency of data patterns across both industry and retail informants that numerous terms, services, and treatment do vary across retail market size suggests that these concerns are minimized and highlight the need for additional investigations into their potentially discriminatory and anti-competitive practices.

This study also offers strengths and advances on the related academic literature published to date—especially in regards to the innovative methods used to gain rich insight into previously unrevealed market strategies. We interviewed nearly 50 industry insiders, and of those, most ($n=39$) were retail and industry perspectives that have been underrepresented, including sales representatives, distributors, and category managers in chain retail.

This is notable, as prior research has either had participant samples that included only independent managers [22–24] or few industry informants [51, 52]. In addition, by centering market strategies, our findings complement the prior work on non-market strategies, including lobbying and science interference, to demonstrate a wider set of tools beverage companies use to maintain their market dominance and impact public health. Moreover, by purposively sampling a variety of industry and retail participants that worked across retailers of different market sizes, we were able to uncover how industry market strategies varied—granting competitive advantages to large chains and a restricted set of options to small chains and independents.

Conclusion and future directions

Beverage companies have consolidated power over consumer settings in the US. Such systematic control of the food retail space to promote their products, many of which are considered health-harming [35–37], highlights the need for new ways of thinking to transform the US food retail into healthier spaces. To date, millions of US public dollars have been invested in changing food environments to add grocery stores to underserved areas and improve healthy food access [53]. However, this decades-long public health work is likely ineffective when it comes to healthy beverages, as this study demonstrates adding another retailer only permits further beverage company access to control the consumer experience in another retail space.

Enforcing current anti-competition laws may be one way to help limit the beverage industry's control, but admittedly may not fully transform retail into a health-promoting space as this policy is unspecific to consumer health. Such challenges demonstrate why some scholars and advocates have called for reform of anti-competition policy to consider the right to food [5, 54–56] and a “true cost” accounting of the food and beverage industry to consider impacts on health, the environment, and inequalities in the food system [57–59]. Under this work, the primary economic goals of anti-competition law, which prioritizes low prices and a wide variety of options for consumers, are being critiqued. Experts and others have pointed out that the hidden costs to people's health and the planet are not being counted and as such ignored in current interpretations of anti-competition law. Extending the scope of competition policy and the evaluation of corporate impacts in this way would allow for a wider, more holistic range of benefits to consumers to be considered and could lead to new regulatory structures that incentivize change for long-term societal benefit. Precedents in other countries [60] exist, and these important examples coupled with a growing consciousness of whether ‘cheap’ should always equate with ‘good’

could be key to applying the political pressure necessary to develop a healthier, more sustainable food system.

While much work remains to fully uncover the food and beverage industry practices and strategies that promotes their interest while undermining health, this study provides new insight into the market strategies beverage companies reportedly use to improve their market performance. Perhaps a primary contribution of this study is revealing the unpalatable realities of industry treatment and actions toward independent and small chain retailers. Illuminating these truths and understanding how universal these are across other unhealthy food products could be a critical strategy for both de-normalizing US public acceptance of food and beverage companies and encouraging legal action that can ultimately lead to improvements in population health.

Abbreviations

CDoH	Commercial Determinants of Health
DSD	Direct-Store Delivery and servicing
FTC	US Federal Trade Commission
KDP	Keurig Dr. Pepper beverage company

Acknowledgements

Not applicable.

Author contributions

MRW – Responsible for formulating research questions, leading the overall study from which these data originated including conception/design, funding acquisition, and implementation; led and conducted the analysis, results interpretation, and manuscript writing. CCA – Responsible for collecting data, assisting with data analysis, contributed to writing/ revision of the manuscript, and supported carrying out the study from which these data originated. AYZ – Responsible for collecting the data, assisted in interpreting results, and contributed to manuscript writing/ revisions. MNL – Responsible for providing feedback on research questions, analyses/ interpretation of results, and writing/ revision of the manuscript.

Funding

Research reported in this publication was supported by the National Heart, Lung, and Blood Institute under Award Number R00HL144824 (PI: M. Winkler). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. Funding agencies had no role in the design, analysis or writing of this article.

Data availability

The qualitative datasets generated and analysed during the current study are not publicly available due to containing identifiable information in the interviews and business files but are available from the corresponding author on reasonable request. Publicly available data sources are available at the Enliven (<https://enlivenllc.com/>) and CSP Daily News (<https://www.cspdailynews.com/>) websites.

Declarations

Consent for publication

Not applicable.

Consent to participate

This study was conducted according to the guidelines laid down in the Declaration of Helsinki and all study procedures involving human participants were approved by the Emory University Institutional Review Board (Protocol STUDY00002768). All participants provided their consent to participate and be recorded prior to the interview.

Competing interests

The authors declare no competing interests.

Received: 15 February 2024 / Accepted: 4 September 2024

Published online: 14 November 2024

References

1. Malik VS, Hu FB. The role of sugar-sweetened beverages in the global epidemics of obesity and chronic diseases. *Nat Rev Endocrinol*. 2022;18(4):205–18.
2. Afshin A, Sur PJ, Fay KA, Cornaby L, Ferrara G, Salama JS, et al. Health effects of dietary risks in 195 countries, 1990–2017: a systematic analysis for the global burden of Disease Study 2017. *Lancet*. 2019;393(10184):1958–72.
3. Freudenberg N, Lee K, Buse K, Collin J, Crosbie E, Friel S, et al. Defining Priorities for Action and Research on the Commercial determinants of Health: a conceptual review. *Am J Public Health*. 2021;111(12):2202–11.
4. Lee K, Freudenberg N, Zenone M, Smith J, Mialon M, Marten R, et al. Measuring the commercial determinants of Health and Disease: a proposed Framework. *Int J Health Serv*. 2022;52(1):115–28.
5. Wood B, Williams O, Nagarajan V, Sacks G. Market strategies used by processed food manufacturers to increase and consolidate their power: a systematic review and document analysis. *Globalization Health*. 2021;17(1):17.
6. Mialon M, Swinburn B, Sacks G. A proposed approach to systematically identify and monitor the corporate political activity of the food industry with respect to public health using publicly available information. *Obes Rev*. 2015;16(7):519–30.
7. Maani Hessari N, Ruskin G, McKEE M, Stuckler D. Public meets private: conversations between Coca-Cola and the CDC. *Milbank Q*. 2019;97(1):74–90.
8. Lacy-Nichols J, Christie S, Cullerton K. Lobbying by omission: what is known and unknown about harmful industry lobbyists in Australia. *Health Promot Int*. 2023;38(5):daad134.
9. Nestle M. *Unsavory truth: how Food companies skew the science of what we eat*. Basic Books; 2018. p. 329.
10. Carriedo A, Pinsky I, Crosbie E, Ruskin G, Mialon M. The corporate capture of the nutrition profession in the USA: the case of the Academy of Nutrition and Dietetics. *Public Health Nutr*. 2022;25(12):3568–82.
11. Baron DP. Integrated Strategy: market and Nonmarket Components. *Calif Manag Rev*. 1995;37(2):47–65.
12. Lacy-Nichols J, Scrinis G, Carey R. The evolution of Coca-Cola Australia's soft drink reformulation strategy 2003–2017: a thematic analysis of corporate documents. *Food Policy*. 2020;90:101793.
13. Hecht AA, Perez CL, Polascek M, Thorndike AN, Franckle RL, Moran AJ. Influence of Food and Beverage companies on Retailer Marketing Strategies and Consumer Behavior. *Int J Environ Res Public Health*. 2020;17(20):7381.
14. Harris JL, Fleming-Milici F, Mancini S, Kumanyika S, Ramirez A. Targeted food and beverage advertising to Black and Hispanic consumers: 2022 update [Internet]. Hartford USA. Rudd Center for Food Policy & Health, University of Connecticut; 2022 Nov. <https://uconnruddcenter.org/wp-content/uploads/sites/2909/2022/11/Rudd-Targeted-Marketing-Report-2022.pdf>
15. Forde H, Chavez-Ugalde Y, Jones RA, Garrett K, Kotta PA, Greaves F, et al. The conceptualisation and operationalisation of 'marketing' in public health research: a review of reviews focused on food marketing using principles from critical interpretive synthesis. *BMC Public Health*. 2023;23(1):1419.
16. FTC Is Investigating Coke, Pepsi Price Discounting Under Antitrust Law. Bloomberg.com [Internet]. 2023 Jan 10 [cited 2024 Jan 8]; <https://www.bloomberg.com/news/articles/2023-01-10/ftc-probing-coke-pepsi-price-discounting-under-antitrust-law>
17. Sisco J. POLITICO. Pepsi, Coke soda pricing targeted in new federal probe. 2023 [cited 2024 Oct 3] Available from: <https://www.politico.com/news/2023/01/09/pepsi-coke-soda-federal-probe-00077126>
18. Robinson WJ, Koley AM. Antitrust enforcement against oligopolies. 2019; <http://www.foley.com/wp-content/uploads/imported/09c9983993044261844b753bec76953d.pdf>
19. Federal Register [Internet]. 2021 [cited 2024 Jan 8]. Promoting Competition in the American Economy. <https://www.federalregister.gov/documents/2021/07/14/2021-15069/promoting-competition-in-the-american-economy>
20. Federal Register [Internet]. 2022 [cited 2024 Jan 8]. Competition in Food Retail and Distribution Markets and Access for Agricultural Producers and Small and Midsized Food Processors. <https://www.federalregister.gov/docum>

- ents/2022/03/17/2022-05669/competition-in-food-retail-and-distribution-markets-and-access-for-agricultural-producers-and-small
21. Breed L, Loughlin C, Ramirez E, Segal E, Ottenberg J. Two years later: A survey of President Biden's Executive Order on promoting competition in the American economy [Internet]. 2023 [cited 2024 Oct 3]. Available from: <https://www.engage.hoganlovells.com/knowledgeservices/news/two-years-later-a-survey-of-president-bidens-executive-order-on-promoting-competition-in-the-american-economy>
 22. Laska MN, Sindberg LS, Ayala GX, D'Angelo H, Horton LA, Ribisl KM, et al. Agreements between small food store retailers and their suppliers: incentivizing unhealthy foods and beverages in four urban settings. *Food Policy*. 2018;79:324–30.
 23. Gittelsohn J, Ayala GX, D'angelo H, Kharmats A, Ribisl KM, Schmidt Sindberg L, et al. Formal and informal agreements between small food stores and food and beverage suppliers: store owner perspectives from four cities. *J Hunger Environ Nutr*. 2018;13(4):517–30.
 24. Ayala GX, D'Angelo H, Gittelsohn J, Horton L, Ribisl K, Sindberg LS, et al. Who is behind the stocking of energy-dense foods and beverages in small stores? The importance of food and beverage distributors. *Public Health Nutr*. 2017;20(18):3333–42.
 25. Federal Trade Commission. Slotting Allowances in the Retail Grocery Industry: Selected Case Studies in Five Product Categories [Internet]. Washington D.C.: FTC Matter. 2003. Report No.: P001201. <https://www.ftc.gov/sites/default/files/documents/reports/use-slotting-allowances-retail-grocery-industry/slottingallowancercpt031114.pdf>
 26. Reimold AE, Lee JGL, Ribisl KM. Tobacco company agreements with tobacco retailers for price discounts and prime placement of products and advertising: a scoping review. *Tob Control*. 2023;32(5):635–44.
 27. Hamilton SF. Slotting allowances as a facilitating practice by Food Processors in Wholesale Grocery markets: profitability and Welfare effects. *Am J Agric Econ*. 2003;85(4):797–813.
 28. Achrol RS. Slotting allowances: a time series analysis of aggregate effects over three decades. *J Acad Mark Sci*. 2012;40(5):673–94.
 29. Center for Science in the Public Interest [Internet]. [cited 2024 Jan 8]. Rigged. <https://www.cspinet.org/resource/rigged>
 30. Jennings MM, Aalberts RJ, Happel SK. The Economics, Ethics and Legalities of Slotting Fees and Other Allowances in Retail Markets. *JL & Com*. 2001;2002;21:1.
 31. Carameli L. The anti-competitive effects and Antitrust implications of Category Management and Category captains of Consumer products. *Chicago-Kent Law Rev*. 2004;79(3):1313.
 32. Unknown. Beverage Marketing Agreement - Food Industry Documents (njdm0229) [Internet]. [cited 2024 May 22]. <https://www.industrydocuments.ucsf.edu/food/docs/#id=njdm0229>
 33. Statista [Internet]. [cited 2024 Jan 8]. Leading liquid refreshment beverage (LRB) companies U.S. volume share 2022. <https://www-statista-com.proxy.library.emory.edu/statistics/225522/leading-liquid-refreshment-beverage-companies-in-the-us-in/>
 34. Statista [Internet]. [cited 2024 Jan 8]. Soft drink market share in the U.S. by brand 2022. <https://www-statista-com.proxy.library.emory.edu/statistics/225464/market-share-of-leading-soft-drink-companies-in-the-us-since-2004/>
 35. Healthy Food America. Sugary drinks in america: who's drinking what and how much? [Internet]. 2018 Jun [cited 2024 May 28]. https://www.healthyfoodamerica.org/sugary_drinks_in_america_who_s_drinking_what_and_how_much
 36. Statista [Internet]. [cited 2024 May 28]. Top liquid refreshment beverage brands U.S. 2022. <https://www-statista-com.proxy.library.emory.edu/statistics/225519/leading-liquid-refreshment-beverage-brands-in-the-us/>
 37. Latest News | Beverage Marketing Corporation. | Consulting, Financial Services and Data for the Global Beverage Industry [Internet]. [cited 2024 May 28]. <https://www.beveragemarketing.com/news-detail.asp?id=701>
 38. Yin J, Zhu Y, Malik V, Li X, Peng X, Zhang FF, et al. Intake of Sugar-Sweetened and low-calorie sweetened beverages and Risk of Cardiovascular Disease: a Meta-analysis and systematic review. *Adv Nutr*. 2021;12(1):89–101.
 39. Qin P, Li Q, Zhao Y, Chen Q, Sun X, Liu Y, et al. Sugar and artificially sweetened beverages and risk of obesity, type 2 diabetes mellitus, hypertension, and all-cause mortality: a dose-response meta-analysis of prospective cohort studies. *Eur J Epidemiol*. 2020;35(7):655–71.
 40. US Department of Agriculture, US Department of Health and Human Services. Dietary Guidelines for Americans, 2020–2025 [Internet]. 2020 Dec. Report No.: 9th Edition. https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf
 41. WMA - The World Medical Association-WMA Declaration of Helsinki. – Ethical Principles for Medical Research Involving Human Subjects [Internet]. [cited 2024 May 22]. <https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/>
 42. Zhang A, Antonacci C, Laska MN, Winkler MR. Conducting Industry Informant Interviews to Advance Healthy Food Retail Initiatives: Challenges, Opportunities, and Lessons. *Health Promotion International*. In Press. <https://doi.org/10.1093/heapro/daae158>
 43. Statista [Internet]. [cited 2024 Jun 3]. U.S. energy drink market share 2023. <https://www-statista-com.proxy.library.emory.edu/statistics/306864/market-share-of-leading-energy-drink-brands-in-the-us-based-on-case-volume-sales/>
 44. Braun V, Clarke V. Thematic analysis: a practical guide. SAGE; 2021. p. 371.
 45. Greenthal E, Marx K, Grossman ER, Ruffin M, Lucas SA, Benjamin-Neelon SE. Incentives and penalties tied to sales volume in contracts between beverage companies and public universities in the United States. *J Am Coll Health*. 2022;0(0):1–10.
 46. White House. Biden-Harris administration national strategy on hunger, nutrition, and health [Internet]. Washington D.C.: The White House. 2022 Sep. <http://www.whitehouse.gov/wp-content/uploads/2022/09/White-House-National-Strategy-on-Hunger-Nutrition-and-Health-FINAL.pdf>
 47. American Antitrust Institute. Federal Trade Commission Guides for Advertising Allowances and Other Merchandising Payments and Services: Comment of the American Antitrust Institute [Internet]. Washington D.C.: The American Antitrust Institute. 2013. https://www.antitrustinstitute.org/wp-content/uploads/2013/01/AAT-FTC-Comments-Fred-Meyer-Guides_0.pdf
 48. Lacy-Nichols J, Marten R, Crosbie E, Moodie R. The public health playbook: ideas for challenging the corporate playbook. *Lancet Global Health*. 2022;10(7):e1067–72.
 49. Akerlof GA, Shiller RJ. Manipulation and deception as part of a phishing equilibrium. *Bus Econ*. 2016;51(4):207–12.
 50. Gilmore AB, Dance S. Learning from 70 Years of Tobacco Control: Winning the War and Not Just the Battles. In: Maani N, Petticrew M, Galea S, editors. *The Commercial Determinants of Health* [Internet]. Oxford University Press; 2022 [cited 2024 Jan 8]. p. 0. <https://doi.org/10.1093/oso/9780197578742.003.0011>
 51. Forde H, Penney TL, White M, Levy L, Greaves F, Adams J. Understanding marketing responses to a tax on sugary drinks: a qualitative interview study in the United Kingdom, 2019. *Int J Health Policy Manag*. 2022;11(11):2618–29.
 52. Grigsby-Duffy L, Cameron AJ, Backholer K, Sacks G. Food industry perspectives on potential policies targeting unhealthy food and beverage price promotions in Australian supermarkets. *BMC Public Health*. 2022;22(1):1423.
 53. Rural Development [Internet]. 2021 [cited 2024 Jan 8]. Healthy Food Financing Initiative. <https://www.rd.usda.gov/about-rd/initiatives/healthy-food-financing-initiative>
 54. Fair Trade Advocacy Office. EU Competition Law and Sustainability in Food Systems: Addressing the Broken Links [Internet]. Brussels: Fair Trade Advocacy Office; 2019 Feb [cited 2024 Jan 8]. <https://fairtrade-advocacy.org/wp-content/uploads/2019/04/FTAO-Briefing-note-Competition-Law-and-Sustainability-Addressing-the-Broken-Links.pdf>
 55. Lianos I, Darr A. Hunger Games: Connecting the Right to Food and Competition Law [Internet]. Rochester NY. 2019 [cited 2024 Jan 8]. <https://papers.ssrn.com/abstract=3414032>
 56. De Schutter O. Addressing Concentration in Food Supply Chains: The Role of Competition Law in Tackling the Abuse of Buyer Power [Internet]. United Nations Special Rapporteur on the Right to Food; 2010 Dec [cited 2024 Jan 14]. Report No.: Briefing Note 03. <https://www.srfood.org/en/briefing-note-addressing-concentration-in-food-supply-chains>
 57. The Rockefeller Foundation. True Cost of Food: Measuring What Matters to Transform the U.S. Food System [Internet]. The Rockefeller Foundation; 2021 Jul [cited 2024 Jan 14]. <https://www.rockefellerfoundation.org/report/true-cost-of-food-measuring-what-matters-to-transform-the-u-s-food-system/>
 58. de Adelhart Toorop R, Yates J, Watkins M, Bernard J, de Groot Ruiz A. Methodologies for true cost accounting in the food sector. *Nat Food*. 2021;2(9):655–63.
 59. FAO. The State of Food and Agriculture. 2023: Revealing the true cost of food to transform agrifood systems [Internet]. Rome, Italy: FAO; 2023 [cited 2024 Jan 14]. 150 p. (The State of Food and Agriculture (SOFA)). <https://www.fao.org/documents/card/en/cc7724en>

60. European Commission. European Commission - European Commission. [cited 2024 Jan 8]. State aid: Ireland's sugar sweetened drinks tax is not aid. https://ec.europa.eu/commission/presscorner/detail/en/IP_18_3521

Publisher's note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.