Supplemental Report: Household Beverage Purchases: Trends and Insights from Nielsen Homescan Panel Data (2023 compared to 2022)

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Introduction

This annual report explores the dynamic landscape of the retail beverage category for the years 2022 and 2023, utilizing Nielsen Homescan panel data, with a specific focus on 100% orange juice (OJ) and 100% grapefruit juice (GJ). Unlike Nielsen retail scanner data, which tracks item purchases at the point-of-sale, this study tracks household purchases of multiple beverage items simultaneously as part of a basket of goods. This allows us to include a broader range of household purchase metrics such as market penetration, purchase frequency, and perceived promotional deals of purchases. In addition to insights into consumer behavior and market trends, the report also acts as a critical gauge for evaluating the implications of an increasing variety of beverages in a market in which overall beverage sales are contracting.

Comparing 100% OJ and 100% GJ to other items in the beverage market underscores their role in consumer diets and sensitivity to market trends and supply side challenges. Over the past decade, for example, the Florida citrus industry and the orange juice category have navigated unprecedented challenges, including Huanglongbing (HLB or citrus greening disease), increased demand spurred by the Covid-19 pandemic, record high inflation, and global supply chain issues. Inflationary pressures notably affected the 'food at home' category, altering spending patterns and consumer preferences. From December 2022 to December 2023, food prices increased 2.7 percent, reflecting a 1.3-percent increase in prices for food at home and a 5.2-percent increase in prices for food away from home.[3] The demand for 100% OJ and GJ was affected by these evolving market trends along with the beverage category as a whole.

This report will provide industry stakeholders with an overview of current trends in the beverage market. By examining various beverage subcategories, the report seeks to deliver additional insights that support informed decision-making. It includes a comparative analysis of 100% orange juice and 100% grapefruit against both other 100% juices as well as against other beverages such as bottled water, sparkling water, smoothies, and tea. Additionally, the annual report tracks demographic shifts, such as trends among various age groups and households with children versus without children. This report will also provide details about the performance of the beverage category as a whole and select subcategories of importance to the industry.

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[3]Bureau of Labor Statistics, U.S. Department of Labor, The Economics Daily, Consumer Price Index: 2023 in review at https://www.bls.gov/opub/ted/2024/consumer-price-index-2023-in-review.htm (visited April 16, 2024).

Report Design Summary

Each year, the Florida Department of Citrus receives aggregated consumer data for the non-alcoholic beverage category from Nielsen IQ, which includes information from the two most recent calendar years, 2023 and 2022, surveying approximately 49,000 households. These households are demographically and geographically balanced to represent the U.S. population. This report analyzes scanned receipts from these households to summarize and assess beverage purchases and trends across the majority of U.S. retail outlets, specifically known as “Total US – xAOC” (Expanded All Outlets Combined).

This includes not only traditional grocery stores with annual revenues exceeding $2 million in business per year, but also includes mass merchandisers (e.g. Walmart, Target), warehouse stores (e.g. Costco, Sam’s Club), dollar stores (e.g. Dollar General, Family Dollar), drug stores (Walgreens, CVS), convenience stores (Wawa, 7Eleven), and military/ DECA. It does not include smaller grocers under $2 million per year, vending machines, school/ hospital/ institutional sites, or food services/ restaurant outlets.

The data includes subcategories within the beverage category, excluding alcohol and beer. The wide array of beverages and beverage materials feature more than 8,000 unique UPCs. Included are carbonated soft drinks (CSD), milk (white and flavored), bottled water, fruit juices, energy drinks, sports beverages (isotonics), coffee (dry and ready to drink [RTD]), tea (dry and RTD), milk alternatives (e.g. almond, oat, soy), blended fruit juices and drinks, vegetable juices, smoothies, sparkling water, noncarbonated soft drinks (including powders and water additive drops), coffee creamers, and lemonade.

In addition to dollars and volume (equivalent gallons) sold, the report measures household penetration (percentage of U.S. households buying product at retail), buying rate (average number of gallons purchased annually by households), purchase frequency (average number of times per year product was purchased at retail by households), purchase size (average volume amount [in equivalent gallons] purchased at each retail transaction)[4], and percentage of items purchased on a perceived deal (when buyer thought it was on sale through a display or feature or used a coupon). The Nielsen Homescan calculations can be expressed as follows: The total volume sold is calculated by multiplying the household penetration by the buying rate. The buying rate is determined by multiplying the purchase frequency (how often the product is bought) by the purchase size (the quantity purchased each time).

Summary of Findings

Beverage Category Purchase Patterns and Trends

Overall, the beverage category contracted in 2023 compared to the previous year. Total beverage sales volume (in terms of equivalent gallons) declined by 8.8% in 2023 compared to 2022. Although all major categories of beverages fell in terms of volume sold, some had steeper drops than others. Alternative milk products had the steepest decline of 15.5% compared to 2022. Fruit

[4] Purchase size does not necessarily represent container size.

juices were down 11.2% and bottled water was down 10.5%. Refrigerated cows' milk had the smallest volume decline of just 2.3%. CSD also had a milder decline of 6.6%.

Although dollar sales declined by 0.6% in 2023, not all categories experienced declines in dollar sales. CSDs were up by 6.5% in dollar sales along with sparkling water which was up by 3.4%. The steepest decline in dollar sales was refrigerated cows' milk with a decline of 7.0%. Fruit juices were down 2.4% and bottled water was down 2.9%. Alternative milks were down 5.4%.

Zooming in on volume sales of fruit juices, grapefruit juice and cranberry juice declined less sharply than other juices with a 6.2% and 4.6% decline, respectively. Orange juice was down 13.5% year-over-year, apple juice was down 10.2%, and pomegranate juice was down 17.3%. While OJ is still the most popular juice in the 100% fruit juice category, the share of the fruit juice market held by OJ shrank slightly from 51.66% to 50.31%. Apple juice held the next highest share at 22.98%, up from 22.73% in 2022. Cranberry juice's share rose from 6.33% to 6.81% while GJ's share rose from 1.58% to 1.67%.

Demographics

The households surveyed in the receipt scans are categorized by generational cohorts. Specifically, they are labelled as Greatest Generation (before 1946), Boomers (1946-1964), Gen X (1965-1980), and Millennials (1981-1996). The cohort after 1996 ("Gen Z") was determined by Nielsen as not having enough respondents to create a statistically meaningful cohort. This will likely change in future years as more people born after 1996 form households. The Gen X and Millennials cohorts are further divided into households with and without children for a total of six demographic groups.

When reviewing broadly popular beverage types, carbonated soft drinks (CSD) are the most popular singular type of beverage across all cohorts by dollar share. Roughly 20 percent (Millennials with Kids) to 27 percent (Gen X without Kids) of all beverage dollars go to CSD. After CSD, Refrigerated Milk is the second most purchased beverage by dollars. Both of the "with kids" cohorts and the Greatest Generation cohort purchase more milk than households without kids and Boomers. *Similarly, fruit juice follows the same pattern as milk where households with children and those born before 1946 drink more fruit juice than the other cohorts.* Importantly, the "All Other Beverages" category makes up between 40 percent (Boomers) and 48 percent (Millennials without kids) of beverage dollars. Millennials (both with and without kids) spend about 2 to 8 percent more on the "All Other Beverages" than their peer group with kids and older cohorts. *Further study into these "other beverages," including functional beverages, will be planned for future reports.*

In terms of volume sales (by gallons), CSD, milk, and bottled water are roughly equal to one another in terms of volume share, ranging from 9 percent (Milk – Gen X w/o kids) to 17 percent (Bottled water – Gen X w/ kids) across all demographic cohorts. With all three of these beverage types summed together, Millennials w/ kids are the highest at 44.0 percent and Greatest Generation is lowest at 34.1 percent. For fruit juice, volume share ranges from 1.8 percent (Gen X w/o kids) to 3.0 percent (Millennials w/ kids). In the "All Other Beverages" category, Greatest

Generation (56.1%) and Boomers (52.4%) have shares of over 50 percent where the other four cohorts range from 42.5 percent (Millennials w/ kids) to 48.9 percent (Gen X w/o kids).

Zooming in on OJ by type and container size across generational cohorts, households with children are more likely to buy larger sized containers of not-from-concentrate (NFC) orange juice (over 70 ounces) than those without children. This is especially true of Millennials w/ kids buying 31.9 percent of their NFC OJ volume in containers larger than 70 ounces. Even so, the 50 to 60 ounce size category is still the dominant container size for retail sales of NFC OJ, ranging from 80.2 percent of volume (Greatest Generation) to 64.4 percent (Millennials w/ kids).

For reconstituted orange juice (Recon OJ), larger sizes appear to be more popular with Gen X cohorts, both with and without kids, than the other four cohorts. About 42.5 percent of Gen X w/ kids buy Recon OJ in sizes 70 ounces or larger as well as 34.0 percent of Gen X w/out kids. All of the other cohorts range from 17.4 percent (Greatest Generation) to 27.5 percent (Millennials w/ kids). *It is unclear why Gen X cohorts have an affinity for larger sized Recon OJ containers.* The 60 to 70 ounce container size consists of between 10.4 (Greatest Generation) percent and 17.7 percent (tied between Boomers and Millennials w/ kids) of Recon OJ volume sales. The majority of Recon OJ is sold in the 50 to 60 ounce container size, ranging from 71.6 percent (Greatest Generation) to 43.6 percent (Gen X w/ kids).

Household Penetration and Purchasing on Perceived Deals

Household Penetration (HP) is defined as the percentage of U.S. households buying a certain product at retail. Percent Purchased on a Perceived Deal (PPD) is the percentage of a certain product bought at retail when the buyer thought it was on a deal, such as using a coupon, seeing a promotional discount on shelf labels, or reading a promotional advertisement on a store display or featured store flyer.

Between 2022 and 2023, all beverage categories except for coconut water (up from 9.2 percent to 9.6 percent) saw HP drop. Lite orange juice dropped the least at 0.1 percent (from 4.0 percent to 3.9 percent) while 100% orange juice dropped the most at 5.2 percent (from 56.5 percent to 51.3 percent). HP for 100% orange juice is at its lowest in the 14 years recorded in the report (down from 68.6 percent in 2010). For comparison, CSD dropped by 0.9 percent (from 86.9 percent to 86.0 percent), Refrigerated Milk dropped 1.1 percent (from 89.0 percent to 87.9 percent), grapefruit juice dropped 0.4 percent (from 3.7 percent to 3.3 percent), and bottled water dropped 3.2 percent (from 73.3 percent to 70.1 percent).

The majority of the beverage categories analyzed experienced increases in PPD with only grapefruit juice (from 19.2 percent to 17.9 percent) and dry teas (from 15.2 percent to 15.0 percent) experiencing declines. Orange juice (100% juice) rose in PPD by 2.0 percent (from 12.6 percent to 14.6 percent) while Lite OJ rose by 3.3 percent (from 17.6 percent to 20.9 percent). PPD for conventional orange juice is at its second lowest in 14 years at 15 percent, only higher than the PPD for 2022 of 13 percent and down from 31 percent in 2010. GJ fell from 19.2 percent to 17.9 percent. For reference, CSD bought on a PPD rose from 27.0 percent to 28.9 percent, Refrigerated Milk increased from 13.7 percent to 14.0 percent, and bottled water rose from 9.4 percent to 11.3 percent.

When reviewing HP of OJ by retail channel, traditional grocery stores lead the way at 37.6 percent (down from 42.1 percent in 2022). Supercenters (e.g. Wal-Mart, Target) had a HP for 17.2 percent (down from 19.2 percent in 2022). Warehouse clubs (e.g. Costco, Sams Club) had a HP of 5.3 percent (down from 6.2 percent in 2022). Online channels (e.g. Amazon) had a HP of 2.6 percent (down from 3.2 percent in 2022). Dollar stores HP was down from 2.0 percent to 1.8 percent. Convenience stores and Drug stores were both under one percent for both 2022 and 2023. It would be interesting to monitor the buying rate and purchase frequency in the online channel of trade, as this is a rapidly growing and evolving retail market in the beverage category.

The report data also breaks out buyers into three groups: Heavy OJ buyers (those buying more than 12 gallons of OJ per year); Medium/ Light OJ buyers (those buying less than 12 gallons per year); and Non-OJ Buyers (did not report a purchase of OJ within a year). For the year 2023, 6.8 percent of buyers were Heavy OJ buyers (down from 8.7 percent in 2022), 79.1 percent were Medium/ Light OJ buyers (down from 81.2 percent in 2022), and 14.1 percent were Non-OJ buyers (up from 10.2 percent in 2022). Heavy buyers comprised of 37.7 percent of all OJ sales and Medium/ Light buyers bought 62.3 percent of all OJ at retail in the U.S.

When their scanned receipts were queried for other beverage purchases, Heavy buyers spent (on a dollar basis) 17.4 percent of their beverage dollars on CSD, 19.6 percent on fruit juices (including OJ), 12.2 percent on cow's milk, 2.1 percent on alternative milks, 6.6 percent on bottled water, and 29.3 percent on "All Other" beverages not included in the nine discrete categories analyzed. <u>*Medium/ Light buyers bought (on a dollar share) more CSD as a share of their beverage expenditures (at 22.6 percent).*</u> They also only spent 6.4 percent on fruit juices as a whole. For cow's milk, alternative milk, and bottled water, Medium/ Light OJ buyers are similar to Heavy OJ buyers at 12.1 percent, 2.4 percent, and 6.2 percent, respectively. <u>*For "All Other" beverages, Medium/ Light buyers are at 35.6 percent.*</u>

Conclusion

The overall beverage category contracted from 2022 to 2023, indicating challenges for traditional and emerging beverages. The data shows stability in the 100% orange juice and grapefruit juice categories, considering supply shortages, but also reveal increased competition from expanding beverage options such as bottled and sparkling waters, smoothies, tea, and emerging options such as functional beverages. While the long-term performance of emerging beverages remains uncertain, OJ risks losing shelf space to other beverages in a crowded market.

Despite the increases in those reporting a perceived deal in most beverage categories, the decline in the beverage category is attributed to both declines in market penetration and buying rates. The report also described key demographic trends specific to the category, noting differences in beverage preferences across generational cohorts. These insights into demographic preferences are useful for targeted marketing strategies.

Looking ahead, the beverage industry must adapt to the shifts in consumer preferences in a broader economic landscape of inflationary pressures. Marketing strategies emphasizing the health benefits of 100% orange and grapefruit juices, as well as competitive pricing, will be crucial for maintaining market share in this competitive category.