TABS
INDUSTRY REPORT

TABS Analytics 4th Annual Food and Beverage Consumables Study

TABS Analytics has conducted a comprehensive survey on the purchase trends for food and beverage categories every year since 2013 (formerly referred to as the consumables study). The study targets four specific areas:

- The food and beverage categories purchased as well as their frequency of purchase. There are 15 categories that make up about 20 percent of CPG retail dollars, and the sales trends in these categories serve as a bellwether for the downward trends that are occurring industry-wide.
- The ten types of deal tactics most utilized in the purchasing of these items, both active and passive.
- An analysis of four "trendy" topics in the industry, specifically organic items, diet foods, heavy online purchasing (for anything), and showrooming.
- The outlets where consumers regularly purchase consumable goods, with a specific focus on internet channels.

As always, TABS Analytics checks and corroborates its data, both with internal validity checks as well as external industry data.

Consumables Category Trends

As mentioned, consumables make up approximately 20 percent of all consumer packaged goods sold in the U.S. These are divided into 15 categories:

- Candy
- Carbonated Beverages
- Cereal
- Cookies
- Crackers
- Frozen Pizza
- Ice Cream
- Juice (Refrigerated)
- Juice (Shelf)
- Novelties
- Popcorn
- Salty Snacks
- Sports Drinks
- Water
- Yogurt

These categories are dominated by the Mega-Tier I companies known to customers worldwide: Unilever, Mondelez, General Mills, Pepsico, and Coca-Cola to name a few. This study lends credence to the generally observed declines in consumable purchase transactions discussed in the trade press and by manufacturers in their quarterly analysts calls and reports.

The following graph shows the annual reported purchases per survey respondent.

CATEGORY	FY2013	FY2014	FY2015	FY2016	Trend	FY2016	Adj Purch	Adj CAGR
SPORTS DRINK	3.85	3.96	3.86	4.01		4%	4.11	2%
SALTY SNACK	8.31	8.13	8.23	8.45		3%	8.66	1%
NOVELTIES	4.60	4.90	4.54	4.65		3%	4.77	1%
WATER	7.66	7.62	8.18	7.71		-6%	7.90	1%
CRACKERS	5.92	6.06	6.09	5.79		-5%	5.93	0%
COOKIES	6.17	6.42	5.83	5.99		3%	6.13	0%
FROZ PIZZA	5.20	5.42	5.30	5.02		-5%	5.14	0%
ICE CREAM	6.67	6.46	6.13	6.40		4%	6.55	-1%
CARB BEV	9.41	9.40	8.77	8.97		2%	9.18	-1%
YOGURT	7.76	7.94	7.45	7.30		-2%	7.48	-1%
CANDY	4.51	4.77	4.41	4.24		-4%	4.34	-1%
POPCORN	4.23	4.16	4.18	3.92		-6%	4.01	-2%
CEREAL	8.24	8.09	7.39	7.45		1%	7.63	-3%
SHELF JUICE	6.64	6.56	6.41	5.84		-9%	5.98	-3%
REFRIG JUICE	6.47	6.44	6.11	5.59		-8%	5.73	-4%

TABLE 1

TABLE 1 is sorted by its final column, the adjusted compound annual growth rate (CAGR). Adjusted Purch is calculated by multiplying the reported number of category purchases per year in FY2016 by the population growth since 2013, which is 2.4 percent. This figure is then divided by the Purchases per Buyer in FY2013 and adjusted to get an annual growth rate.

As you can see, even the top category, Sports Drink, only grew by 2 percent per year, whereas four categories declined by 2 percent or more per year. Only four of the fifteen categories have seen transactions grow at all during the past 4 years.

Note that the average number of purchases takes into account the entire population, including those who reported not buying within a particular category at all. Its color-coding identifies the most frequently purchased products, with carbonated beverages being the most often purchased (dark green), and popcorn the least (dark red).

The trend graphs show which categories fluctuate heavily (e.g. sports drinks) versus those that show consistent gains (such as salty snacks) or declines (juices).

An interesting facet to this graph is the often inverse relationship between category strength and adjusted growth numbers. For example, cereal and soft drinks, despite being the categories most often purchased, are in decline, while lower penetration categories such as sports drinks and novelties are growing. The weakening of soft drinks is bad news for Coca-Cola, but PepsiCo, due to its diversification, appears to be better equipped to weather this trend. Pepsi also owns Frito Lay (salty snacks) and Gatorade (sports drinks), which are both experiencing growth.

Overall, 2016 experienced a core industry decline of 2 percent, but this is adjusted to -1 percent when taking population growth into account. The industry is, therefore, still in decline, but has stabilized somewhat.

Why are these categories up or down? As seen in the TABLE 2 below, 12 of the 15 categories show lower penetration than the year before. But these changes offer little to explain the decline in overall trips.

CATEGORY	Chg in Penetration	Chg in Purch per Buyer	2016 Penetration
SALTY SNACK	1%	3%	90%
FROZ PIZZA	1%	-5%	72%
ICE CREAM	0%	4%	85%
NOVELTIES	-1%	3%	74%
SPORTS DRINK	-1%	4%	55
CEREAL	-1%	1%	82%
COOKIES	-2%	3%	84%
CARB BEV	-2%	2%	82%
CRACKERS	-2%	-5%	85%
WATER	-2%	-6%	78%
POPCORN	-3%	-6%	72%
CANDY	-3%	-4%	75%
SHELF JUICE	-3%	-9%	73%
YOGURT	-5%	-2%	74%
REFRIG JUICE	-6%	-8%	70%

TABLE 2

TABLE 2 shows a general correlation, but when laid out on the scatter plot graph below (CHART 1), you can see that the correlation is quite weak and imprecise at 0.27:

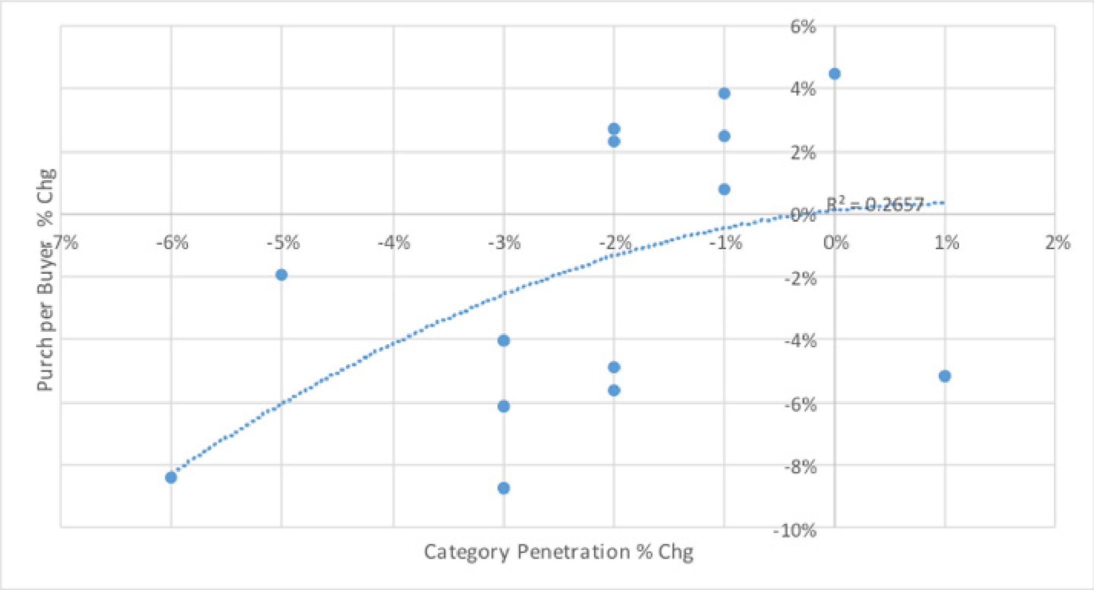


CHART 1

Of course, nearly all of these categories already enjoy a high level of penetration. The one exception was the penetration of sports drinks, which was down slightly this year, even though the category's growth was positive. Penetration may therefore not be an ideal predictor of changes in purchases per buyer.

However, when looking at Very Heavy Buyers (those who purchase a particular category 12+ times per year) in TABLE 3, the percent change shows a much stronger correlation with purchases per buyer:

CATEGORY	Chg in Very Heavy Buyers	Chg in Purch per Buyer
NOVELTIES	14%	3%
ICE CREAM	8%	4%
COOKIES	6%	3%
SODA	5%	2%
SPORTS DRINK	4%	4%
CEREAL	3%	1%
SALTY SNACK	3%	3%
YOGURT	0%	-2%
FROZ PIZZA	-5%	-5%
CRACKERS	-6%	-5%
POPCORN	-9%	-6%
CANDY	-9%	-4%
WATER	-10%	-6%
REFRIG JUICE	-13%	-8%
SHELF JUICE	-15%	-9%

TABLE 3

Upon examining the data in TABLE 3 and the corresponding correlations in CHART 2, it becomes clear just how crucial it is to keep those Very Heavy Buyers returning to the store. If you look at the top 3-4 categories, though, we can see that there comes a point of diminishing returns, where even a massive upswing in the number of Very Heavy Buyers yields only a nominal increase (maximum 4 percent) in the number of purchases per buyer.

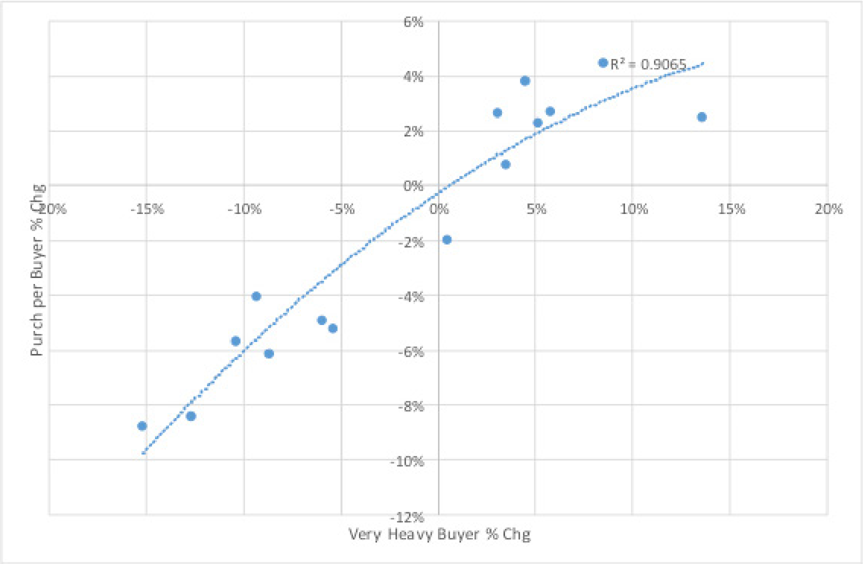


CHART 2

Given the importance of Heavy Buyers of consumables, it is worthwhile to investigate their general demographics. Based on the 2016 study data, this is where they fall in terms of age, income, and whether the household has children:

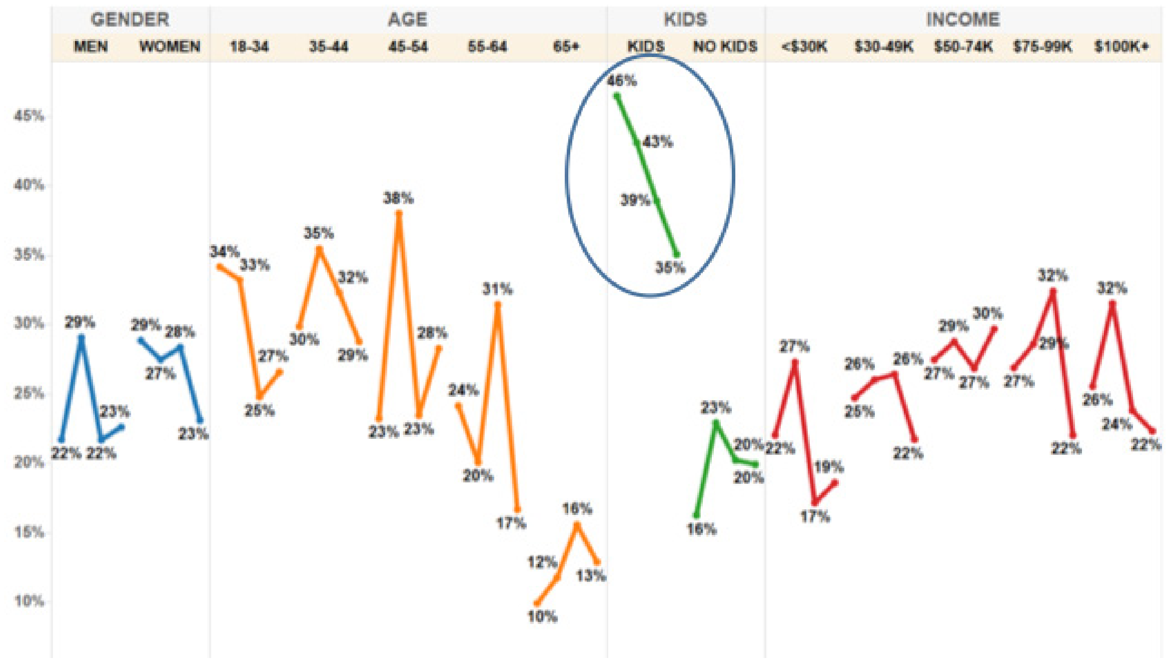


TABLE 4

Note that "Heavy Buyer" is defined somewhat differently here. It refers not merely to buyers within specific categories, but rather across the entire food and beverage consumables sector. "Heavy Buyer" in this case is defined as a buyer who is a Very Heavy Buyer (12+ times per year) in at least 11 of the 15 categories of the survey.

As you can see very little difference exists between genders, and only a bit of fluctuation between income levels. There's a bit more variation between age groups, with retirees dropping off significantly. Clearly, the real differentiator in Heavy Buyers is between households with kids, and those without. Families with children represent the densest block of Heavy Buyers. However, it is also a group in steep decline, only 35 percent were Heavy Buyers in 2016, down from 46 percent a mere three years ago.

Between categories, the influence of children in the household varies considerably:

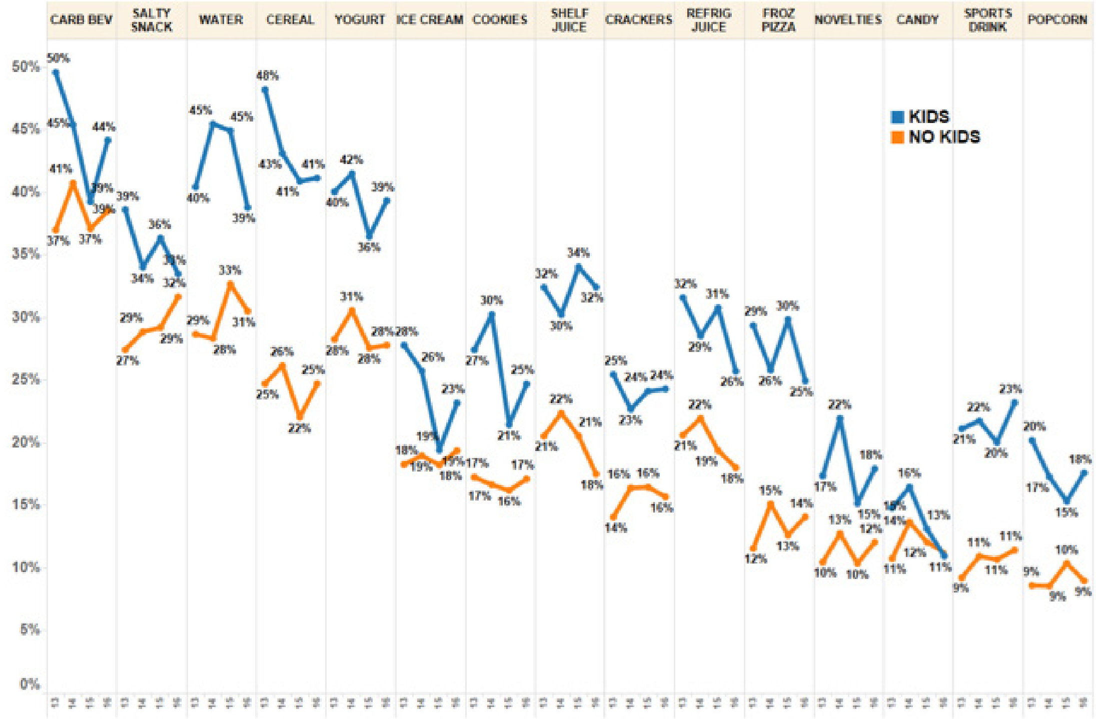


TABLE 5

However, with the exceptions of Candy and Salty Snacks, consumers with kids were much more likely to be Very Heavy buyers. This group clearly warrants disproportionately high levels of attention, a fact that many retailers and manufacturers have been slow to recognize. The common practice in the industry is to focus on Millennials, the group that is younger in age and mostly comprises childless households. This represents a missed opportunity to target consumers who are more inclined to buy these food and beverage categories, as outlined above.

Deal Tactics

We've established just how important Heavy Buyers are in the food and beverage consumables sector. But what is driving these disproportionately large buying habits? The TABS 2016 study demonstrates that, often, this driver is promotion.

Look at TABLE 6 below:

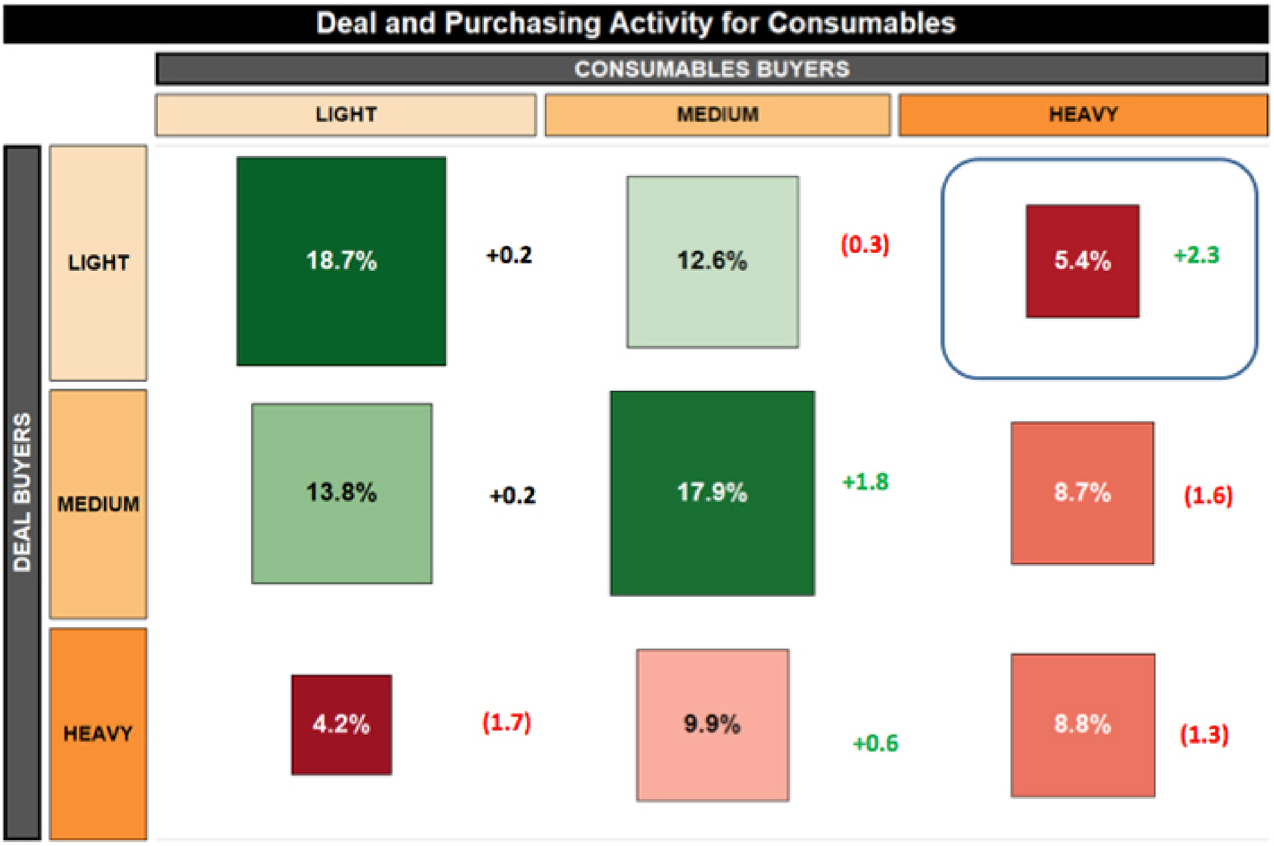


TABLE 6

For retailers and manufacturers alike, the "holy grail" of consumers are those who reside in the upper right quadrant of this chart, that is, those who care very little about taking advantage of promotions, but are Heavy Buyers nonetheless. As one would imagine, this represents a rather small percentage (5.4 percent), albeit one that has grown over the past year.

On the opposite end of the spectrum, those who are heavy deal users (in other words, they use 6+ deal tactics regularly), but ultimately don't buy very much, are similarly rare at 4.2 percent (lower left quadrant). Among the Heavy Buyers, there exists an increased likelihood to take advantage of deals, but there does appear to come a point of diminishing returns, which would speak against targeting heavy buyers too aggressively in promotions.

That said, it is clear that all groups are responsive to promotion. After all, the acts of getting a "deal" has a universal appeal that transcends age, ethnicity, and income. Ninety percent of shoppers use at least one deal tactic regularly, and 63 percent use at least three.

Consider the following:

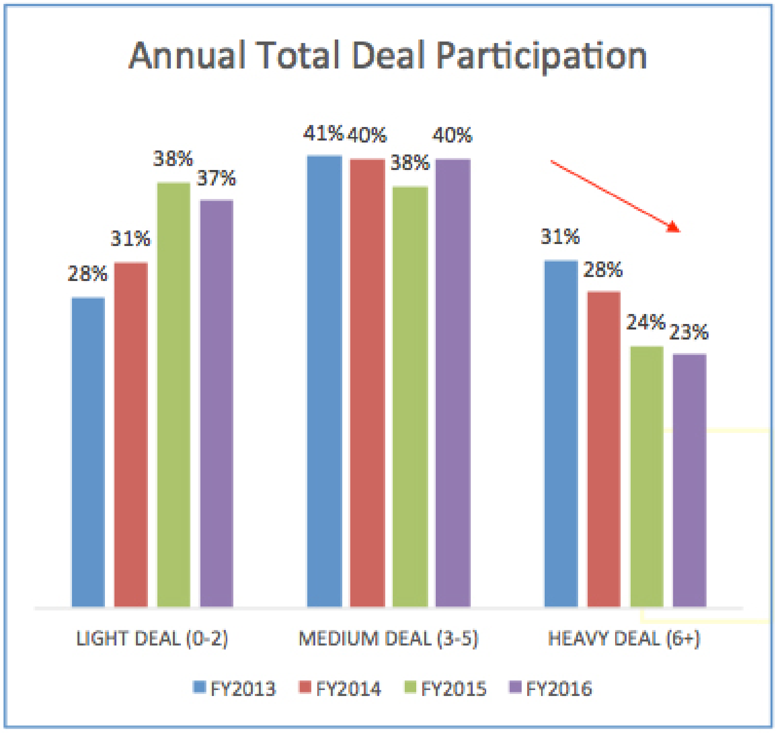


TABLE 7

Over the past few years, deal participation trends have trended slightly up for light deal users, and down for heavy users. Participation trends have stabilized in 2016, both overall and by deal type, as shown below:

TABLE 8

Of the ten most commonly used deal tactics, six are designated as active (an action is needed by the consumer), and four as passive (no action is needed):

- *Active deal types:* Shopping deals, Circulars, Loyalty programs, Free-Standing Insert (FSI), Online Coupons, and Rebates
- *Passive deal types:* Every-Day Low Price (EDLP), Private Label (PVL), Large Size, and Bonus.

As demonstrated in TABLE 9 below, the top passive deal tactic in 2016 was the Every-Day Low Price (EDLP) at shelf. A full 63 percent of respondents cited buying products at EDLP, thus supporting the popularity of Walmart and dollar stores as well as discount food outlets such as Aldi. Shopping at and price-comparing different outlets was the No. 1 active deal tactic at 45 percent, although this tactic has been slipping in popularity somewhat.

Also declining is the use of FSIs (and couponing in general, both in paper and online). Interestingly, online coupon offers are on the rise, but this has not resulted in a commensurate increase in online coupon participation.

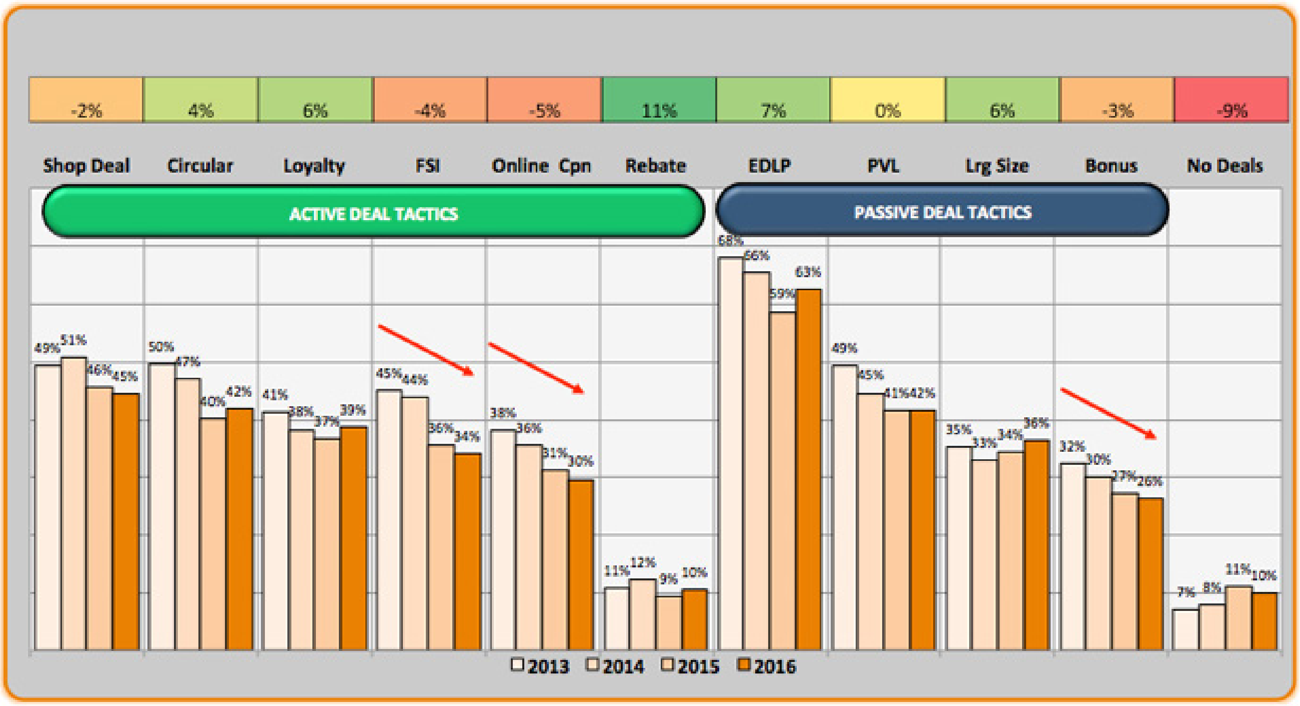


TABLE 9

On the passive deal side, bonus packs have slid for the third consecutive year. A possible explanation for this is the logistical headache that these often cause for manufacturers in executing bonus pack programs.

Private Label offerings by retailers have stabilized after a steady decline, leading some to theorize that this tactic has already reached its maximum effectiveness. Less than half the respondents take advantage of them.

TABLE 9 above takes all respondents into account. Let us now turn specifically to Millennials, the heavily targeted demographic we mentioned earlier in the paper:

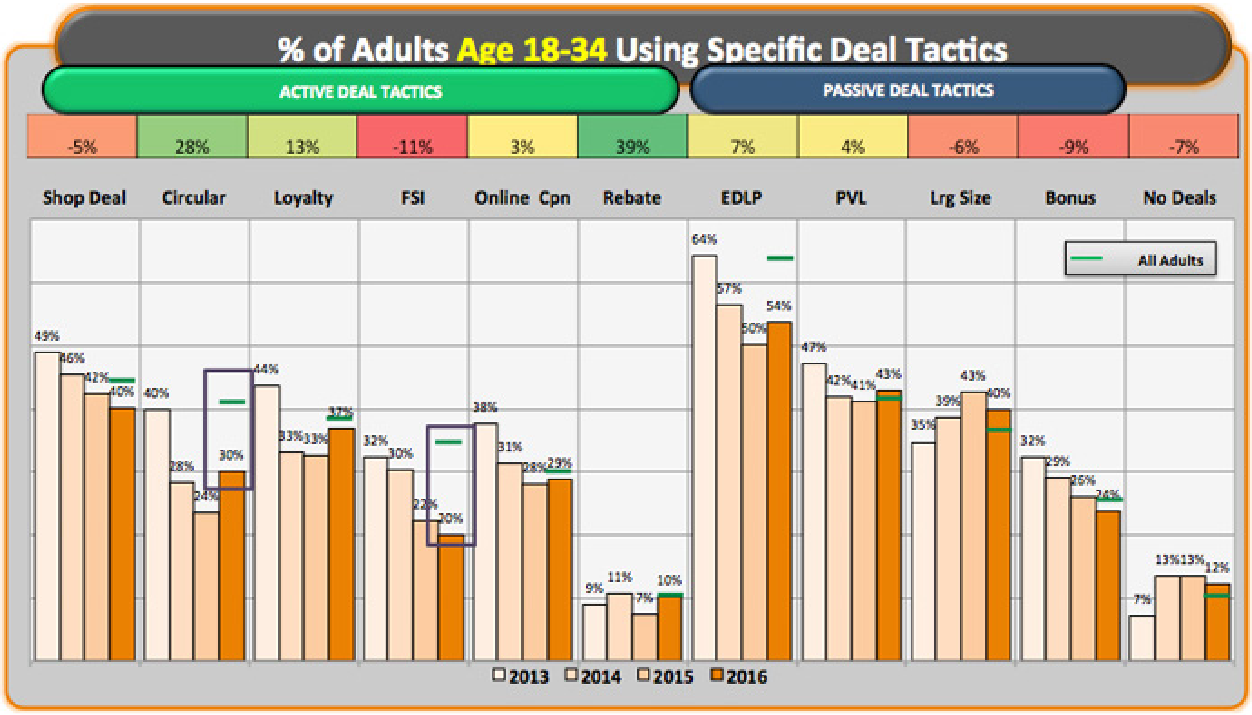


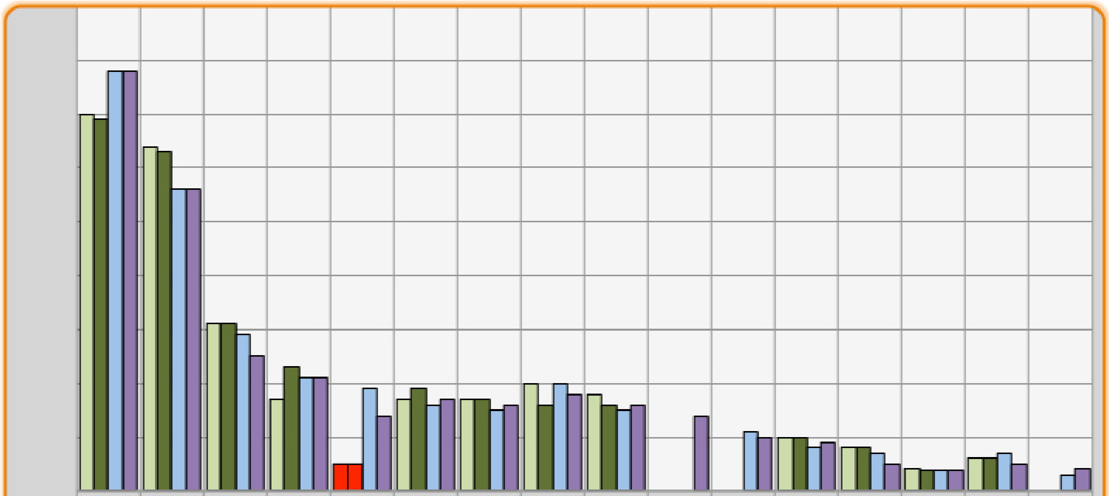
TABLE 10

Here we can see significantly lower deal participation nearly across the board, with the sole exceptions being Large Size and Private Label purchases. The interest in large sizes is curious given that the majority of this age group belongs to smaller households.

On the Active Deal side, there's a large discrepancy particularly with Circulars and FSI, which are generally regarded as more "old school" deal tactics. Particularly, FSI is not only low among Millennials, but continuing on a steady decline, which does not bode well for this tactic's future viability as Millennials age. Online Coupons, however, are a weak substitute for FSI's for both younger consumers and the population, overall. The use of these coupons has declined each year, and they are not particularly popular among Millennials either. Further, TABS Analytics analysis of in-market data reveals the sales lift from digital coupons to be extremely low.

Purchase Outlets

Next, let us examine where people are actually purchasing. TABLES 11 and 12 below show the percentage of respondents who make a food and beverage consumables purchase at a particular outlet *regularly*, defined as 6+ times per year (a fairly low threshold, considering that the average consumer shops their favorite grocery store 20+ times per year).



	GROCERY	WALMART	TARGET	DOLLAR	DISCOUNT GRO	WALGREENS	CVS	COSTCO	SAMS	TRADER JO	WHOLE FOODS	CSTORE	RITE AID	ONLINE	BJS	OTHER NTRL
2013	70%	64%	31%	17%	5%	17%	17%	20%	18%			10%	8%	4%	6%	
2014	69%	63%	31%	23%	5%	19%	17%	16%	16%			10%	8%	4%	6%	
2015	78%	56%	29%	21%	19%	16%	15%	20%	15%		11%	8%	7%	4%	7%	3%
2016	78%	56%	25%	21%	14%	17%	16%	18%	16%	14%	10%	9%	5%	4%	5%	4%

TABLE 11

As you can see, brick & mortar grocery stores remain the undisputed leader in consumables, where 78 percent of Americans shop regularly, followed by Walmart at 56 percent. It's important to note that Walmart Neighborhood Centers are grouped into the Grocery designation, whereas the Walmart figures apply exclusively to super centers and their traditional store formats (referred to as Division 1 stores). Most other outlets remained stable, with the notable exceptions of Target and Rite Aid, both of which saw declines in the number of consumers regularly purchasing.

Target's decline appears to be a result of the outlet's ill-fated strategy to shift its mix towards perishables and organics. Perishables has suffered from high spoilage rates due to insufficient store traffic and organics just have low popularity, overall (see FIGURE 1).

Drug and large volume retailers stayed more or less consistent. TABS Analytics just began collecting data on Trader Joe's, Whole Foods, and discount grocery outlets in the past year or two. As such, it is difficult to draw any firm conclusions from those figures yet. Trader Joe's introduction into the survey this year may partially explain the dip seen in Discount Grocery, as Trader Joe's may have formerly have been perceived as belonging to this group.

There was a rather modest gain in online sales (4.5 percent vs. 3.9 percent YAG), but its share of the consumables pie remains quite small. These figures have stayed remarkably consistent since the first survey in 2013.

In terms of share growth, those with the biggest increase in the consumables sector were Grocery, Dollar Stores, Sam's Club, Convenience Stores and Online, as you can see in TABLE 12:

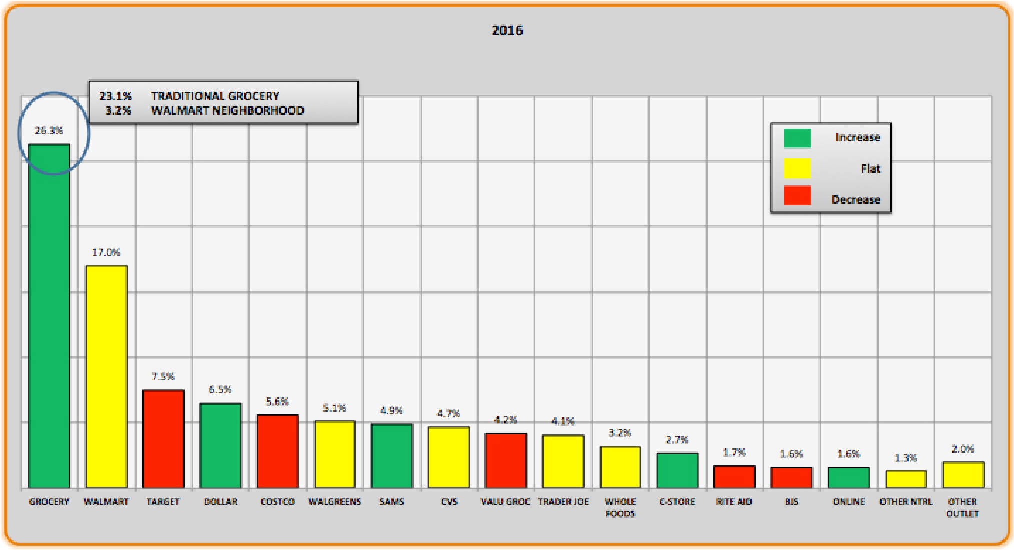


TABLE 12

The percentages indicate the overall share of mentions from the study as to where consumers purchased regularly. As mentioned, despite seeing a marginal overall increase, online sales barely registered on the chart with a share of 1.6 percent.

Also, when we drill down on online sales (CHART 3 below), we note that online ordering actually went down in 2016 vs. YAG. In this year's study, 31 percent of respondents indicated having purchased consumables at an online outlet at least once, versus 34 percent in 2015.

The Stated Loyalty to those outlets (defined as those who buy regularly divided by those who buy at all) went up slightly, from 11 percent to 15 percent. Compared to the stated loyalty numbers for brick & mortar grocers, which average 75 percent, this is incredibly poor.

As indicated in CHART 3 below, those purchasing online regularly (6+ times per year) increased somewhat:

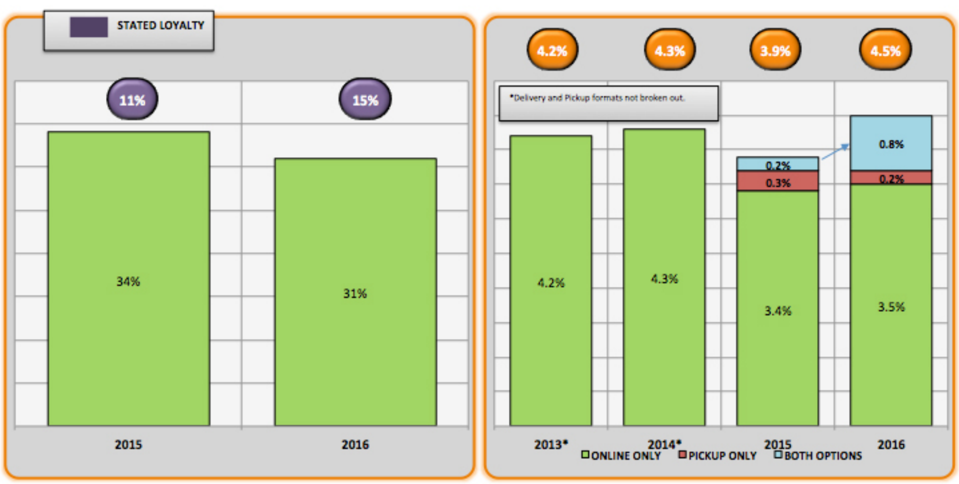


CHART 3

Note that online purchasing with the option for in-store pickup has grown, which most likely explains the increase. Particularly, major brick & mortar outlets such as Walmart and Kroger have recently rolled out pickup options. However, pickup still remains an anemically small share of online sales. Approximately the same time that the aforementioned chains announced their pickup programs, Target discontinued theirs.

Based on the relatively stable percentages of regular online buyers in recent years, it appears that pickup options do not particularly attract new customers, but simply offer an "augmented buying experience" to an outlet's current customer base.

Of the outlets where respondents report purchasing online, Amazon was the only one to increase penetration as seen in TABLE 13 below:

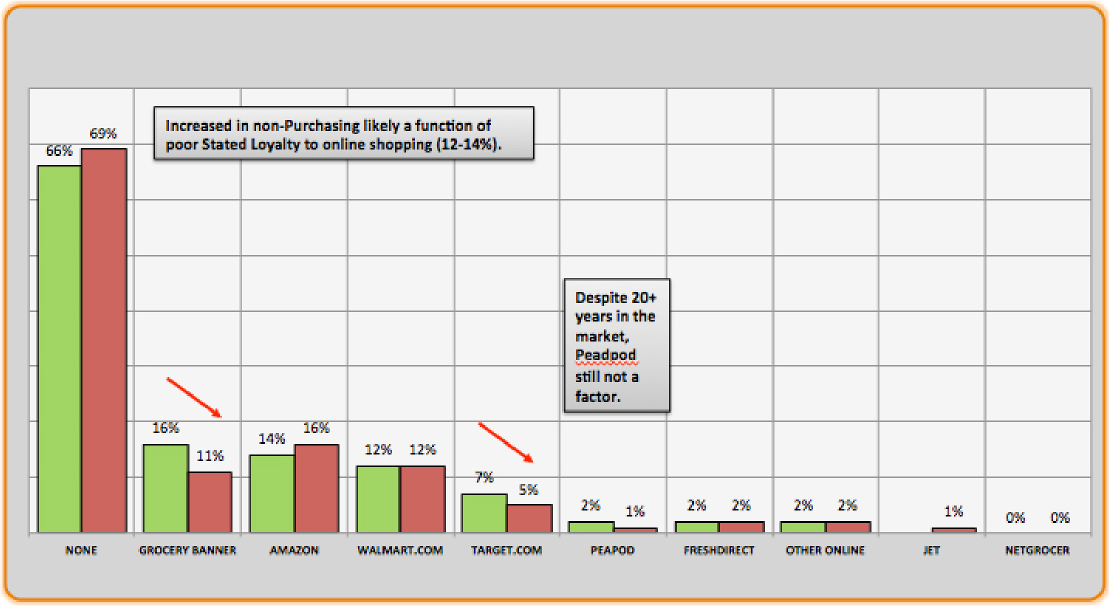
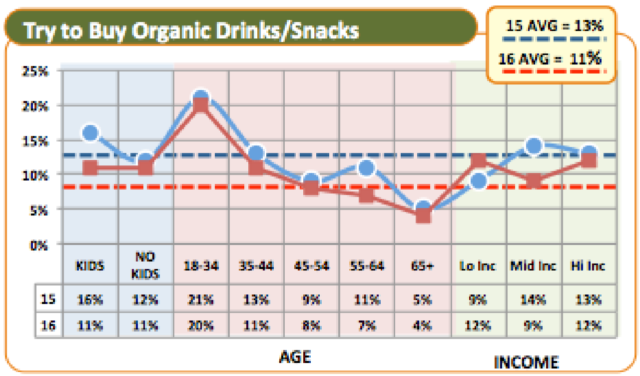


TABLE 13

Non-purchasing went up by 3 percent, most likely due to the previously stated lack of loyalty to online outlets. Grocery Banner and Target both experienced significant declines. Interestingly, despite 20+ years in the market, online grocer Peapod remains an inconsequential player.

"Trendy" Concepts

Finally, TABS addressed four so-called "trendy" topics in the 2016 study that have a long way to go before even approaching mainstream acceptance, even among Millennials. The first are those respondents who try to buy organic drinks and snacks:

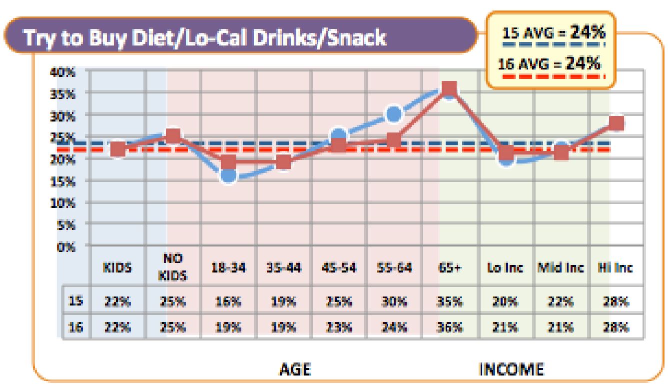


	KIDS	NO KIDS	18-34	35-44	45-54	55-64	65+	Lo Inc	Mid Inc	Hi Inc
15	16%	12%	21%	13%	9%	11%	5%	9%	14%	13%
16	11%	11%	20%	11%	8%	7%	4%	12%	9%	12%

FIGURE 1

Overall, that number has dropped from 13 percent to 11 percent. Even among Millennials, the group that embrace organic purchases the most, showed stagnation. The market is taking notice of this trend, with Walmart recently dropping its "Wild Oats" private label brand of organics.

Similarly the percentage of respondents who try to buy diet or low-calorie drinks and snacks also showed no increase:



	KIDS	NO KIDS	18-34	35-44	45-54	55-64	65+	Lo Inc	Mid Inc	Hi Inc
15	22%	25%	16%	19%	25%	30%	35%	20%	22%	28%
16	22%	25%	19%	19%	23%	24%	36%	21%	21%	28%

FIGURE 2

The largest differentiator in this case was age group, with twice the number of retirees as Millennials caring about diet snacking. This is a development that does not bode well for the future of this trend.

Another declining trend is that of "showrooming," where customers perform basic research on product options online before they go out shopping:

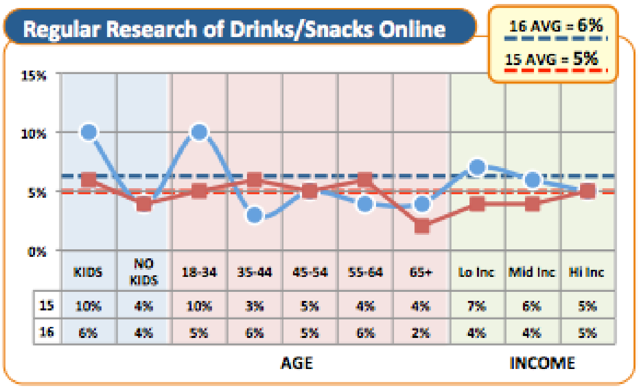


FIGURE 3

As shown above, the practice has declined in Millennials and those with kids nearly by half. Ninety-five percent of all respondents don't use this tactic for food and beverage purchases.

In the previous section, we talked about the decline in regular online purchasing for food and beverage categories. Heavy online purchasing has also taken a slight dip:

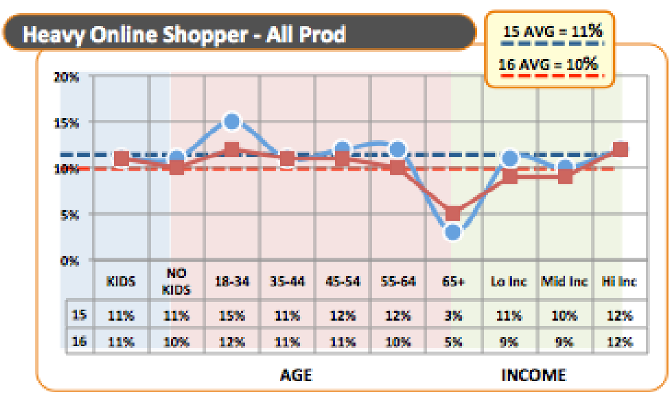


FIGURE 4

E-commerce is not likely to soon become a massive disruptor in this sector. Only 10 percent of people take advantage of this medium, which therefore represents a substantial money-loser for retailers. Given the anemic market, it doesn't make sense to assume the expense of delivery and the labor costs associated with the logistics of picking, storing, and shipping product. It would be far easier and more profitable to let the consumer take on the tasks of physically collecting the goods and getting them home.

Conclusion

In conclusion, the sales of food and beverage consumables are on the decline, particularly in households with kids. Overall, however, some level of stabilization is apparent. As is clear from the data, online sales of consumables show no sign of going mainstream in any capacity. The outlook for e-commerce in this sector is quite grim. This topic has been discussed further on the TABS Analytics blog, and the debate will not be over anytime soon.

Overall the data once again suggests that a significant investment in promotional activity is needed to sustain and grow the business. The weak quality of promotions in the industry has been a significant source of weak sales. Food and beverage consumables are a function of changes in the number of Heavy Buyers who are heavily influenced by promotions, and as those promotions stay weak, so will overall purchasing.