Where is Beverage Packaging Heading - Trends Which Influence Them

ProFood Tech 2019
Impact Zone
• Consumer impacts
• Product trends
• Technology advances
• Sustainability
• Retail challenges
• Where will we go next?
North American packaged food, drink consumption

- Expectation is 659.34 billion packs by 2022
  - 3.1% from present levels.
- Volume consumption will reach 551.32 million ton per annum in 2022.
- Plans include recyclable and light weighting
- Plastic packaging – impact of availability of commercial packaging grade bioplastics.
- Packaged food and drink sales increased average of 2.3% between 2012 and 2017, reaching 549.57 billion packs.
Ongoing food and beverage packaging trends

1. More material conversions
2. Unusual container choices
3. Zero-waste initiatives
4. Stand-up pouches
5. Consumers want healthy, convenient
6. How packaging can sway empowered GenZs (1990s to Mid 2000)
7. Concerns around BPA
8. Simplifying lives via universal design
9. Can’t get enough of cannabis
Consumer trends and impact
Consumer Changes

- Millennial transition to parenthood – change coming
- Boomers aging and yet resistant to aging
- Health tracking and self monitoring
- Wellness and natural products shift
- Need for convenience (in all forms, and willing to pay for it!)
- Premiumization of experiences
- Mistrust of big brands
**Consumer Use Experience: Journey of Truth™**

**ZERO MOMENT OF TRUTH**
Advertising, word of mouth, internet/web info, blogs, etc.

**FIRST MOMENT OF TRUTH**
How can the package meet needs and delight the consumer?

**SECOND MOMENT OF TRUTH**
Map the entire use experience? What happens to packaging at end of use?

**THIRD MOMENT OF TRUTH**
For oneself or someone else who has already experienced the product.

Insight: Packaging touches all moments of truth
Packaging is a key trends enabler

**Nutrition/ Life Quality**
- Single serve
- Portion control
- Nutrient protection

**Value**
- Private label national brand equivalent
- Match product to package
Packaging is a key trends enabler (cont.)

**Environment / Sustainability**
- New ante
- Efficiency and investment

**Safety**
- Authenticity, counterfeiting
- Tamper evident
- Tracking / traceability
The U.S. beverage market grew volume for the fifth consecutive year in 2018, and experienced slightly accelerating growth.

U.S. Total Beverage Market Volume Change 2013 – 2018P

- 2013: -0.1%
- 2014: 1.1%
- 2015: 1.6%
- 2016: 2.0%
- 2017: 0.7%
- 2018: 1.2%

P: Preliminary
Source: Beverage Marketing Corporation
Bottled water is the biggest volume share gainer

U.S. Beverage Market
Volume Share by Category
2013 – 2018

2013

- Tap/Others 14.5%
  - VA Water 0.7%
  - Wine/Spirits 1.7%
  - Sports 2.3%
  - Fruit Bevs 5.3%
  - Tea 6.0%
  - Milk 9.8%
  - Beer 10.5%
  - Coffee 10.7%
  - CSDs 21.1%
  - Bottled Water 16.5%

2018P

- Tap/Others 11.4%
  - VA Water 1.1%
  - Wine/Spirits 2.3%
  - Sports 2.5%
  - Fruit Bevs 4.7%
  - Tea 5.8%
  - Milk 8.6%
  - Beer 9.9%
  - Coffee 11.1%
  - CSDs 19.4%
  - Bottled Water 22.0%

P: Preliminary
Source: Beverage Marketing Corporation
Water is going premium and edging out soda

Globally Bottled water consumption overtakes all other soft drinks 2018

- Bottled water is a $13 billion business
  - Coca-Cola and PepsiCo currently only have a 13% volume share in the US. Nestle is far and away the leader, with almost half of the market.)
  - Major room for growth in this area — Companies showcase a healthier and more diverse array of beverages.
  - Consumption reached 418bn litres in 2017, up 92% since 2007

- When it comes to nutrition, nothing has a better reputation.
- Rumors of water’s positive impact have reached mythical.
- General healthy beverage innovations.

Source: www.businessinsider.com
Bottled water has experienced healthy growth each year since the recession.

### U.S. Bottled Water Market
**Billions of Gallons**
2013 – 2018P

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<tbody>
<tr>
<td>Change</td>
<td>7.2%</td>
<td>7.6%</td>
<td>7.9%</td>
<td>6.1%</td>
<td>5.0%</td>
<td>6.7%</td>
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*Source: Beverage Marketing Corporation*
Private label PET water accounts for virtually half of the single-serve market today, and its share is on the rise.

U.S. Retail PET Water Market
Branded vs. Private Label

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<tr>
<th>SEGMENT</th>
<th>PRIVATE LABEL</th>
<th>BRANDED</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>5-YR CAGR</td>
<td>10.6%</td>
<td>5.2%</td>
<td>7.6%</td>
</tr>
</tbody>
</table>

P: Preliminary
Source: Beverage Marketing Corporation
Sparkling water is on fire – fastest growing segment in the bottled water category
Dairy and the Non-Dairy category

• Expansion into the dairy alternative category
• Offsets flat liquid milk sales
• Looking at +15% compound annual growth rate of plant based dairy alternative category

Health & wellness mega trend

• High-growth, on-trend food and beverage categories that focus on:
  - premium organic dairy,
  - non-GMO,
  - plant-based alternatives to milk and yogurt,
  - fresh foods, and coffee creamers.
Fermented foods deliver on:

- the demand for ‘natural’ products.
- deliver added health benefits.
The cannabis/hemp market in the U.S. is projected to be extremely attractive with some estimates placing it as high as $250 billion in the future.

**Cannabis Market Size and Projections 2018**

- Total cannabis market estimated to be $10 billion in 2018

**Today**
- Conservative projection of industry at $24 billion in 2025
- Smoking of cannabis on decline while vaping rising
- Farm Bill federally legalizing hemp in U.S.
- Wellness usage continues to grow
- Distribution currently limited to dispensaries

**Tomorrow**
- Reimagining Retail
- Social media
- Greater consumer understanding
Cannabis-Infused Beverages
Potential Beer Industry Disruptor

- Assortment of beer-centric products disrupt the current alcohol market with **cannabis-infused beverages**.

- **Lagunitas Brewing Company**, (wholly owned by Amsterdam-based Heineken International B.V.)

- Launches of **two psychedelic sparkling water products**.

- Called Hi-Fi Hops, the two “IPA-inspired” non-alcoholic beverages— and contain zero alcohol, zero calories, and zero carbohydrates.

Coke, Constellation Brands, Miller-Coors All have plans!
Packaging Innovation at home and personalization

SodaStream

Bonne O
Among the brands ordered online by meal kit users, Blue Apron got top ranking (64 percent). Some 78 percent of consumers – 76 percent of nonusers and 78 percent of users – want, to some extent, grocery stores to develop meal kits they could purchase in stores. 68 percent of nonusers and 75 percent of users – desire kits that contain a combination of local or private brands and well-known name brands. Meal kits have skyrocketed to $5 billion in sales, Amazon, Kroger and even Coke are developing this market.
Kroger just re-invented the meal kit

• Previously the Easy for You!
• Allows shoppers to personalize their dinner down to the entree and side dish.
• The meals are sold by weight at $7.99 per pound.
• Once home, the items are put in a skillet and cooked for 10 to 12 minutes.
• A video at the store explained how to pack and prepare the items.
Technology impact
Science & Technology will continue to impact packaging

- AI/robotics/machine learning
- **Digital printing / mass customization**
- Flexible equipment – many sizes, more formats
- **Small scale manufacturing**
- Renewable non-food feedstocks
- Coatings / barrier for paper based materials
- High speed sorting for recycling
- Nanotechnology
- **Active / Intelligent packaging**
- Traceability / authentication
Technology

- Time temperature indicators
- Smart packaging
- Biomimicry
- Personalization
- Foamed paper
- 3D printing
- Absorbers/ emitters
Belgium-based Martens Brouwerij has launched a new beer brand using digitally printed PET bottles which come to life using a smartphone app.

When two bottles are brought together, the app brings to life a dialogue between the characters – resulting in talking bottles.
Smart Labels

• Smart labels expand reach of invisible barcodes to create new possibility for product identification

• Digimarc Barcode scanning capabilities within the SmartLabel app.

• Digimarc provides reliable, efficient and flexible method for delivering SmartLabel to consumers.

• The SmartLabel program from Grocery Manufacturers Association (GMA) and the Food Marketing Institute

Performs like this. Looks like this.
Print developments to track

- Digital printing
  - Personalizing packaging
- Direct bottle printing
  - Eliminating labels
  - Customization – one off!
- 3D printing
  - DIY prototypes, machine parts
  - Small quantity sample
Sustainability
Why is Sustainability so Critical?

“One half to three quarters of annual resource inputs to industrial economies is returned to the environment as wastes within just one year.”

— Weight of Nations: Material Outflow from Industrial Economies, WRI
Sustainability Drivers & Packaging Implications

Drivers
- Legislation
- Social/ transparency
- Safety/ health
- Risk management
- Millennials

Packaging Implications
- Recyclable materials
- Recycled content
- Carbon impact
- Logistics impact
- End of life impact – marine, litter
- Zero waste
- Enhanced shelf life
- Compostable packaging
- Ethical sourcing/ CoC
- Green chemistry
- Emerging Issue program & replacements
- Consumer communication
- Sustainable packaging goals
Sustainability has become embedded in many companies for packaging selection, but much of low hanging fruit has been picked.

**Low-Hanging Fruit**
- Recycling/Recyclable materials
- Materials reduction
- Energy efficiency

**Getting serious**
- Refillables
- Product concentrates
- Hybrid bio-based materials w performance
- Brand equity through sustainability
- Transparency
- Anticipatory & emerging issues tracking
- Sustainable sourcing/social considerations
- Extended Producer Responsibility (EPR)
- New technology development/implementation
- E-commerce returnable packaging

**Big Systems**
- Renewably sourced polymers @ cost/perf of petro polymers
- Natural capital/ carbon accounting
- Green chemistry replacements
- Composting – home & industrial
- Circular Economy
- New Plastics Economy
- Emerging market recovery
- Marine debris collection

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Opportunity: Preparing for Future

Sampling of brand owners have all set goals for packaging that is recyclable or compostable – by 2025

Are you preparing to meet the needs of brands & consumers?
Sustainability

- Sustainable Sourcing
- Biobased
- Compostable materials
- Recycled content
- Recyclability
- Design for disassembly
Sustainability (cont.)

- Logistics Optimization
- Ocean Waste
- LCA driven decisions
- Lightweighting
- Keeping materials out of landfills
Sustainability (cont.)

- Refill
- Concentrates
- Material replacement
- Sustainability claims / communication
Ooho capsules are made of edible and biodegradable seaweed.

Packaging biodegrades in four to six weeks – the same length as a piece of fruit – or can be eaten.

Lucozade Ribena Suntory trialed the packaging at the Richmond Marathon, September 2018.

At each trial, hundreds of Oohos – in 25ml and 70ml sizes – were handed out to participants.
Retail challenges (omni-channel)
Retail Drivers & Packaging Implications

Drivers
- Cost pressures
- Enhanced experience
- Convenience
- Health focus
- Sustainability leadership
- Millennials

Packaging Implications/Strategies
- Private label
- #2/3 brand phased out
- Retail ready packaging
- In store & e-commerce pack formats
- NFC/QR/Interactivity
- Transparent packaging, paper/pulp based
- Certified sourcing
- Niche brands get a chance
- Green chemistry
- Sustainability components
Estimates have store brand sales at $120 billion.

- Private label food and beverage will grow at a rate of 2.95 percent through 2020.

**German retailer Lidl planed to open 20 stores 2017 summer and 100 stores in total by mid-2018.**

– **DID NOT HAPPEN – Retrenching**

Impact could spur other regional and national retailers to up their private label games.

Millennial shoppers will continue to spur even more growth in private brands - They trust the retailers
Channel Trends – Grocery Format Trends

Growth 2016-2021 (inflation adjusted)

Channel growth in E-commerce, fresh, limited assortment – and more of these stores coming in US

Source: Williard Bishop: Future of Food Retailing
Growing at 16-26% to 2021

Could be 20% of US grocery sales by 2025

49% of U.S. consumers already shop for packaged goods products online.
- 61% of Millennials, 55% of Generation X, 41% of Boomers and 39% of Greatest Generation.

Only 7% of retailers surveyed believe they are ready.
- 22% of manufacturers as comparison

Number of delivery models – but does not work well for all pack formats (i.e. detergents, liquids, etc.)

Need new packaging formats optimized to e-commerce
E-Commerce Supply Chain Impacts

The Most Important Considerations via E-Commerce Supply Channel

- Damage Prevention
- Packaging Reduction

Consumers are Not Afraid to Purchase Everything Online and Packaging Influences Brand Perception

Branding Manufacturers - Machine and Material Considerations
- Product protection
- Multiple package sizes
- Reduction in pack counts
- Mixed cases
- Tamper-evident
- Counterfeit prevention
- Use of recycled/reusable
- Lighter-weight materials
- Connectivity
- Flexible equipment
- Shorter runs
- Bundled packaging

Etailers - Fulfillment and Distribution Considerations
- Durable packaging
- Smaller package sizes
- Traceability
- Weight concerns
- Right-size cartons
- Sustainable materials
- Automating manual tasks
- Inventory management

Logistics Providers (3PL) - Packaging and Delivering Considerations
- Damage prevention
- Size of carton
- Weight of carton
- Cost reductions
- Automating manual tasks
- Traceable coding/marking
- Delivery methods:
  - Truck and driver
  - Contracted drivers
  - Drones

Consumers - Online Shopping and Unboxing Expectations
- Easy returns
- Convenience
- Quick delivery
- Meet expectations
- Environmentally friendly packaging
- Recyclable materials/containers
- Personalize it
- “Let me buy it online, and pick it up”
- “Deliver it to me anywhere”
- “Don’t send me damaged goods”
The online retailer becomes the brand

Latest own brand marks shift in e-commerce giant’s private label business – Bricks and Mortar

- Amazon.com Wickedly Prime private label food products earlier this month
- 50 stores in 2019

To open 3,000 cashier less stores by 2021

Amazon Go – Launches 2017

Amazon Go cashier-less store Chicago 2018
Chinese tech's move into food retailing

- The growth of ecommerce in China
  - Driven by a lack of physical store infrastructure.

- Chinese companies don’t face committed brick and mortar ala Walmart
  - No need to replace a generation of big box stores as they moved into ecommerce.

- Chinese big tech is leading the development of the next generation in grocery
  - Well-developed understanding and execution of online shopping.

Alibaba
Tencent
JD
Kroger starts use of unmanned vehicles for delivery in Arizona

- Krogers Frys Food Stores begin a test of the vehicle in Scottsdale, Arizona,
- Partnership with Silicon Valley startup Nuro.
- Nuro’s R1, a custom unmanned vehicle.
- Kroger service @ $5.95 with no minimum order requirement for same-day or next-day deliveries.

Source: Thomson Reuters
Walmart patents a storeless retail system

Consumer’s Residence 200
Where are we heading?
In the future, the marketplace will be characterized by numerous high-value, low relative volume opportunities.
EMERGING BEVERAGE TRENDS

COLD BREW + COFFEE PLUS
PLANT BASED
FUNCTIONAL
VALUE ADDED DAIRY
KOMBUCHA
PROBIOTICS
BIO-HACKING
CBD
SPECIAL DIETS
SUSTAINABILITY & ECO-FRIENDLY
PACKAGE INNOVATION
In summary: packaging in 3 to 10 years

- Ecommerce outpaces traditional
- Flexible equipment – many sizes, more formats
  - Small scale manufacturing
- Renewable non-food feedstocks for packaging
- Nanotechnology
- Active / Intelligent packaging
- Traceability / authentication
- Consumer wants change quickly
- Private brand grows
- Health and wellness a competitive advantage
- Sustainability drivers increase
- Technology advances allow for rapid interaction
- Digital printing / mass customization
Service, Solutions, Sustainability
What the CPA offers today!

The Association for
Contract Packagers & Manufacturers
Raise Your Industry Profile
Gain and Maintain and an Industry Advantage

• The **voice and source** for contract packaging and manufacturing resources.

• Leader in **increasing the knowledge and expertise** within the contract packaging industry.

• Encourage the **effective use** of contract packaging services.

• Increase the **industry profile, capabilities, innovation** of its members.
MORE Leading CP/CMs are CPA Members

MORE RFQ
OVER 90 RFQ / MONTH
2018 Avg.

MORE networking
– opportunities
with hundreds of
industry executives

MORE education
and training
opportunities for
your entire team

MORE growth
11.9% CAGR
5-year

UP TO 10 EVENTS
per year
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