

## SHOP AND AWE!



## Consumer goods stalwart leveraging cutting-edge packaging innovation to fuel rapid sales growth in burgeoning online retail markets

BY GEORGE GUIDONI, EDITOR

If being able to translate consumer desires into new products lies at the core of genuine product innovation, according to leading consumer goods multinational **Procter & Gamble (P&G)**, North American consumers have a lot of *eureka* moments and experiences to look forward to in coming months and years.

Although the venerable Cincinnati, Ohio-headquartered consumer packaged goods (CPG) powerhouse has long been revered for cutting-edge product development and general packaging excellence, the unfolding global boom in e-commerce and on-line shopping seems to have P&G reaching for the stars with game-changing package design strategies breathing new vitality and vigour into iconic stalwart brands such as *Tide*, *Dawn* and *Old Spice*, with many more slated to follow suit.

"P&G is designing with what the e-commerce channel is bringing to the table for all of us," say Ken McGuire, a research fellow at P&G with 53 issued

U.S. patents to his name, including the new award-winning *AeroFlexx* liquid filling technology that could completely revolutionize the way that liquid products of all types are packaged and shipped across global markets.

"It (e-commerce) brings tremendous growth opportunities," McGuire says, "but it also brings challenges that maybe were not being addressed as effectively before, but rather remedied with 'Band-Aid' solutions."

"As the channel becomes more important to our consumers, our growth and our bottom line, we have instituted a number of programs that are e-commerce directed to improve our consumer experience and our ability to profitably withstand the new distribution channel challenges."

With online sales of consumer product in North America widely projected to grow by up to 30 per cent annually over the next few years, P&G has already established itself as an early major CPG pacesetter in the burgeoning new distribution channel driven by soaring demand for greater consumer con-



Procter and Gamble's research fellow Ken McGuire, who holds 53 U.S.-issued patents, played an instrumental role in the development of AeroFlexx liquid filling technology.





venience and product accessibility.

Recording net sales of US\$66.8 billion for fiscal 2018, P&G saw its online revenues soar by 30 percent to nearly US\$4.5 billion during the year—approaching seven percent of total sales—prompting the company to accelerate the development of more e-commerce-friendly packaging formats and structures.

Late last year, P&G launched a new ultra-concentrated **Tide** liquid detergent in an all-new **Eco-Box** container—measuring roughly the size of a standard shoebox—designed exclusively for e-commerce distribution.

Weighing less than eight pounds, the compact size of the patented *Eco-Box* bag-in-box package was designed to provide an attractive space-saving option for urban consumers with tight living quarters, with the added bonus of vastly improved packaging sustainability.

Containing enough liquid detergent for 96 loads of laundry, the *Eco-Box* package contains 30 percent less water than the 96-load jugs retailed at traditional brick-and-mortar outlets, while weighing four pounds less and using 60 percent less plastic.

According to P&G's brand manager for e-commerce Isaac Hellemn, "If everyone who buys the 96-load plastic bottle of Tide switched to the Tide Eco-Box, we could save enough plastic to cover 5,000 football fields each year."

Designed specifically to facilitate efficient shipping and stacking, the new package largely eliminates the need for extra wrapping and padding material like bubble wrap, according to P&G, resulting in far less packaging waste that ultimately ends up in landfills.

And because the package weighs a third less than the comparable traditional plastic jugs, the savings achieved in lower shipping costs allow for the Tide *Eco-Box* package to be listed at the same suggested retail price of US\$19.99 as the traditional 96-load plastic jugs—providing a win-win proposition for the target

consumer audience.

"The Tide Eco-Box is a combination of product and packaging innovation," states Brent Heist, head of P&G's Global Packaging Sustainability team in Cincinnati.

"Being a more concentrated product plays exceptionally well for e-commerce insofar as carrying less of a packaging footprint per use, without sacrificing quality of Tide performance benefits for the consumers," Heist points out.

## RISING TIDE

"We were also able to incorporate a lot of consumer convenience features, like a no-drip twist-tap that provides carefully controlled dosing for the consumers," Heist explains, "while the built-in feet at the bottom of the box enables you the to raise the box just right to get the dosing cup underneath the dispensing tap if you're dosing on a flat surface."

"All of these things may seem small separately," Heist says, "but putting them together allowed us to give consumers a real 'delight of use' experience."

"All in all, we think it's a more user-friendly packaging alternative to simply shipping a standard lidded bottle surrounded by protective packaging that most consumers often perceive as waste."

While the *Tide Eco-Box* packaging was designed specifically for e-commerce retailing, McGuire points out that addressing the new distribution and other challenges unveiled by the e-commerce boom is now an integral part of the thought process guiding all new packaging development at P&G.

"The packages we have designed in the past to look wonderful and perform well in the brick-and-mortar environment may not require the same characteristics for traveling through the e-commerce supply chain," McGuire explains.

One of the more notable recent packaging successes unveiled at P&G has been



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the swift commercialization of the aforementioned **AeroFlexx** liquid filling technology, in which McGuire played a central role.

Already adopted for the company’s bestselling *Dawn* brand of dishwashing detergent and the *Old Spice* body wash line, the breakthrough technology uses compressed gas to achieve sufficient tailored rigidity to create firm structure in flexible films—eliminating the need for a traditional plastic bottle altogether.

By utilizing a proprietary one-way valve, the new flexible packaging format also facilitates cleaner dispensing, more controlled dosing and more convenient one-handed use, according to P&G, while still remaining tough enough for e-commerce shipping without extra protection.

Moreover, the **AeroFlexx** packaging uses 50 per cent less plastic than a traditional rigid plastic bottle and offers a 360-palette for branding and other for design graphics—making it a more resource-efficient solution.

### TOTAL WIN-WIN

As a genuinely disruptive packaging innovation that earned the coveted *Diamond Award* at last year’s 30th annual **Awards for Packaging Innovation** competition of **The Dow Chemical Company**.

More recently, the **AeroFlexx Dawn** brand pack was picked as a finalist in two categories—including Best of Show—in the **2019 PAC Global Leadership Awards** competition of **PAC Packaging Consortium**, with winners to be announced at a special gala ceremony following PAC’s upcoming **ONEof100 Summit** packaging innovation forum in New York City on Feb. 26, 2019.

Says PAC president and chief executive officer James Downham: “Not only is AeroFlexx an exceptionally clever technology, it facilitates for creation of an incredibly sustainable package that also effectively addresses the e-commerce distribution channel requirements.

“It literally checks off every box on the good packaging idea checklist,” Downham extols, “making it a very special entry in our Global Leadership Awards competition.”

Acknowledging the disruptive nature of the **AeroFlexx** omnichannel flexible packaging solution, “It is actually intended to be an e-commerce option for all the bottles we sell one day,” McGuire proclaims.

“I can’t say for sure if we’ll get there eventually,” he allows, “but if it’s a better solution, why not give it a try?”

For his part, Heist says he has been very encouraged by the feedback to **AeroFlexx** packaging gathered through extensive market research conducted by

P&G prior to the launch.

“As with all new disruptive technologies, it can be polarizing,” Heist relates.

“Many people loved it, some people didn’t, but in the end it really comes down to the quality of brand execution, which I think we have done pretty well based on online reviews and other social media feedback,” he says.

“The people who tend to love this type of package are typically the younger, more experiential consumers more willing to try new things,” Heist expands.

“The Old Spice brand has been extremely well-received in the new packaging format,” Heist confides, “and even for the Dawn brand, our average online star rating is about 4.2 out of five,” Heist confides.

Both Heist and McGuire point out that as younger consumers continue to become better educated on sustainability issues, they are starting to appreciate the fact that flexible packaging is not the environmental villain that it is often portrayed to be in mainstream media.

“A proper Life-Cycle Analysis (LCA) will show that that this new package blows the bottle away just on the material usage alone, which is the most critical part of the LCA,” McGuire asserts.

“It’s a classic case of perception versus reality.”

Says McGuire: “The popular consumer perception is that because these flexible packages do not always have recycling streams, like curbside pick-ups, they are not as environmentally-friendly as the plastic bottles.

“But that’s just not the reality,” he sates.

“One of the things you will see in coming years is that these [flexible] materials will actually find their way into recycling streams because the demand is getting bigger and better,” McGuire argues.

“We are testing pilot programs and working on technologies that address all of the things that are claimed to be environmental shortcomings of flexible packaging.”

Adds Heist: “The **AeroFlexx** flexible packaging works well with younger consumers due to the intersection of technology development and fuller consumer understanding of the issue at hand.

“We can’t sell a new technology to consumers unless it’s meaningful to them, and sustainability is a massive part of that connection.

“That’s why our technology development is so closely tied to understanding what delights consumers and deliver on that demand—starting with the brands that we believe you think will deliver the greatest payoff.”

For McGuire, the ongoing efforts by P&G to lightweight its products for e-commerce applications to reduce shipping costs is perfectly synched with the



Brent Heist, the head of P&G’s Global Packaging Sustainability team, was one of featured speakers at PAC’s well-attended PAC to the Future II conference in Montreal last fall.

company’s large sustainability efforts in packaging and other key links in the supply chain.

“One of the things that P&G and other companies will continue to address is shipping costs,” McGuire states.

### COST CONTROL

“We are used to designing wonderful looking packages that draw people’s attention when they are walking down the store aisle and when they take it home, but if you are paying to have those same items shipped through online retailing you may not necessarily make the best use of the space available to you,” he says.

“It is a challenge that many CPGs, P&G included, will continue to grapple with to address the different demands of e-commerce distribution for some time yet,” McGuire predicts.

“So while I like to think that our e-commerce-directed innovation program is ahead of the curve, it’s certainly not complete, but we are heading down the right path,” he says.

McGuire also notes that this disruptive game-changing **AeroFlexx** technology will be rapidly commercialized by Chicago-based **Innventure**, a team of experienced professionals with a history of entrepreneurship that partners with Fortune 100 firms.

“Innventure will scale this technology under a global licensing arrangement to make this an industry play that is not limited to P&G,” says McGuire.

“**AeroFlexx** is quickly gaining traction across a broad range of customers, brands and categories,” says Cedric Dsouza, chief technology officer for Innventure AeroFlexx.

“Based on the needs of our customers and their supply chains, our planning stance is to design and offer commercial executions of this technology to the industry via a menu of three options,” he explains.

“We will start by filling pouches for customers on a contract manufacturing basis,” he relates, “and we will then evolve to selling pre-made pouches that a firm can fill at their site on AeroFlexx fill/seal equipment.

“We will then advance to selling roll stock that a firm can put through AeroFlexx form/fill/seal equipment that it installs.”