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Ensuring Shelf Appeal

by Jade Sterling

When consumers walk into a shop, they're faced with an endless array of options. As 70 percent of consumer purchase decisions are still made at the shelf¹, a product without curb appeal will languish there. But there's more to packaging allure than the superficial. 'The most important element of packaging is its ability to protect the contents,' says Marny Bielefeldt, director of marketing, Alpha Packaging.

'Packaging exists to deliver products to consumers in perfect condition. Well-designed packaging meets the requirements of the product while minimising economic and environmental impacts of both the product and its packaging,' explains Hans Van Bochove, chairman of the European Organization for Packaging and the Environment (EUROPEN). 'Good packaging uses only as much of the right kind of material as necessary to perform this task.'

Stefan Kranz, sales director at Metsa Board, adds, 'Especially in food packaging, it is of utmost importance that the packaged food stays intact.'

In its simplest form, packaging serves two basic functions: protecting the product inside and selling it to outside audiences. But well-designed and functional packaging can also communicate the product's benefits; reinforce brand identity; give a sense of personality; and encourage consumer loyalty.

'Dramatic changes in consumer demographics, lifestyles and eating patterns are creating new opportunities for food and beverage packaging,' says Anne Marie Mohan, senior editor at Packaging World. 'Convenience is a major selling point for food and beverage packaging. Features such as ease of opening, resealability, portability, lighter weight, and no-mess dispensing are packaging benefits that influence consumers' purchasing decisions positively.'

Tom Egan, vice president, Association for Packaging and Processing Technologies, says: 'Packaging needs to promote the product, provide information on the front and back and its use, plus identify the product throughout the supply chain.'

Packaging design can be divided into three key areas: the primary display panel, the 'story' panel, and the nutritional panel. The primary display panel is the front panel of the product; here a company can feature its brand name, logo, and tagline on the area the consumer sees when deliberating.

'The first step in selling a product at the shelf is to have enough on the front of the label to pique their curiosity and cause them to pick it up,' explains Debbie Wildrick, chief strategy officer at Metabrand.

'The design aspects will help to intrigue the consumer, further driving their interest.'

The story panel can be used to tell the brand's story, helping to position the product for success by appealing to the consumer. This panel could also be used to describe the product's attributes pictorially or verbally,' Wildrick adds.

'Finally, the third panel offers the facts, including the nutritional panel and company information, which she concludes is 'the least creative, and has certain requirements associated with it.'

Regulation

Regulation (EU) No 1169/2011 is the most significant and influential piece of legislation for food labelling. Labelling must include compulsory information, and the particulars indicated on products must be easy to understand, visible, legible and indelible. These include:

- Name under which the product is sold
- List of ingredients
- Quantity of ingredients or categories of ingredients expressed as a percentage
- Net quantity
- Date of minimum durability or the 'use-by' date
- Any special storage conditions or conditions of use
- The name or business name and address of the manufacturer or packager
- The place of origin or provenance
- Instructions for use
- Nutritional information

Products may bear the CE (Conformité Européene or European Conformity) marking If they comply with the requirements set out in the Directive.



By affixing the CE marking to a product, the manufacturer declares the product meets all the legal requirements for CE marking and can be sold through the European Economic Area (EEA). CE marking also supports fair competition by holding all companies accountable to the same rules and is part of the EU's harmonisation legislation.²

For dietary supplements, the directive requires the following inclusions:

- The names of the categories of the nutrients or substances that characterise the product or an indication of the nature of those nutrients or substances
- The portion of the product recommended for daily consumption and a warning of the risks to health if this is exceeded
- A declaration to the effect that the supplement is not a substitute for a varied diet
- A warning to the effect that the product should be stored out of the reach of young children



The labelling must not contain any statement attributing to the product properties of preventing, treating or curing a human disease; or any mention stating or implying that a balanced and varied diet cannot provide appropriate quantities of nutrients in general.

Testing for Label Claims: K2 Case Study

Vitamin K2 (menaquinone [MK]-7) can be unstable in certain formulations, and with more K2 products on the market, the chances that consumers may purchase supplements that don't deliver is increased. In 2016 and 2017,

Kappa Bioscience tested over 200 vitamin K2 products for quality and label claim. The testing results found half of K2-plus-calcium or -magnesium products missed label claim by 50 percent or more. In addition, 50 percent of the K2 products that did not contain minerals performed poorly, with one in three measuring no vitamin K2 content.

'How can manufacturers protect brands, retailers and consumers while ensuring the healthy growth of the K2 market? A market needs healthy competition to develop and back-biting on quality concerns serves no-one and is fundamentally counter-productive to growth,' attests Jim Beakey, marketing director at Kappa Bioscience. 'Our answer is testing, testing and more testing. Ingredient and product manufacturers can frequently spot test their own finished products, using independent labs, to identify and solve quality issues. Quality permeates the full value chain of a product—from ingredient manufacturer to consumer—and all parties share responsibility. Meeting label claim is a simple promise, but as the example of K2 shows, sometimes it takes an industry to accomplish this.'

Regulation 1924/2006 sets EU-wide conditions for the use of nutrition claims such as 'low fat' or 'high in vitamin C' and health claims such as 'helps lower cholesterol'. The regulation applies to any food or drink product produced for human consumption marketed on the EU market. Only foods fitting a certain nutrient profile will be allowed to carry claims, and nutrition and health claims will only be allowed on food labels if they are included in one of the EU positive lists. Products carrying claims must comply with the provisions of nutritional labelling Directive 90/496/EC and Directive 1169/2011. Directive 90/496/EC lays down harmonised rules on the presentation and content of nutritional information for pre-packaged foods but the inclusion of nutrition information is voluntary unless a nutrition-related claim is made on the package. The nutritional labelling rules do not apply to food supplements.

As a rule, labelling must be in a language easily understood by consumers; in practice, this means the official languages of the member state.

TeaPigs' Peppermint 'Tummy Tea'

One product that fell afoul of the European health claim regulations was 'Tummy Tea' from TeaPigs. In their efforts to address this, they include the following on the back of every package:

'When we first launched our peppermint tea, we referred to it in a light-hearted way as "tummy tonic". For centuries, peppermint tea has been drunk as a reputed aid to digestion but apparently, we have breached the EU Food Law! Slap on the hand. So, warning: do not drink as an aid to digestion. Just enjoy the fresh peppermint flavour and let your own tummy decide what's best.'



Country of Origin Labelling

Adding to its national origin labelling requirements for dairy products, pasta and rice, Italy has announced plans to introduce mandatory origin labelling for tomato-based products, in a move intended to counter growing competition from imports of Chinese tomato puree. Controversially, Italy ignored European Union rules requiring Member States to notify the Commission of any planned national legislation, meaning it is likely to be inadmissible. Meanwhile, Spain has introduced mandatory country of origin labelling for milk and milk-based products even though the European Dairy Association has strongly opposed origin labelling across the EU, arguing it will hinder trade in the single market.

The European Commission has also called on the United Kingdom to recognise geographical indications after Brexit to guarantee the protected status of food products. Around 1,400 foods are currently protected under the EU's Protected Designation of Origin (PDO), Protected Geographical Indication (PGI) and Traditional Specialities Guaranteed labels, and the EC wants the UK to recognise and uphold these following its departure from the European Union.

Label Claims

In December 2014, the TNS Study³ was published; it was designed to explore the impact of food labelling in relation to consumer purchasing decisions. Conclusions showed the following impact food information had on decision making:

- Overall introduction of trans fatty acid level labelling did not lead to healthier choices
- 'May contain' was effective in driving more cautious choices among allergy affected consumers
- A misunderstanding of 'best before' is likely to be contributing to food waste
- Country of Origin labelling of primary ingredients did not appear to have a positive effect on healthier food choices

Research indicates the date of minimum durability is considered by consumers to be one of the most valuable pieces of information on the packaging, and for those with special dietary needs, the additional information provided is considered useful. The difference between 'best before' and 'use by' can be easily explained to consumers on the story label: 'use by' is included on fresh food that will spoil quickly and is related to food safety; 'best before' dates appear on processed foods that are frozen, dried or tinned, and relate to quality, rather than safety.

Brent Adnerson, packaging advisor at Nosco, says one of the top concerns among supplement marketers is how to fit all the certifications, nutritional information and required information on a product with limited space: 'Manufacturers are feeling the pressure to include more information on the packaging. One way to address this is through multi-panel labelling. A peel-back version of a traditional label allows up to 200 percent more copy space.'

Clean Label

'Natural' is a term commonly found on health product packaging, yet there is no legal definition for the word, and the industry risks consumer confusion. To determine consumers' understanding, a review⁴ guestioned over 85,000 consumers in more than 30 countries and found three key elements make a product 'natural'. Unsurprisingly, the first concern is the origin of the raw materials, with organic or non-GMO ingredients considered natural. Second, consumers regard products without artificial flavours or colours, preservatives or additives as 'natural products'. Finally, a product can be natural when raw material processing has been kept to a minimum—the less an ingredient is processed, altered or tampered with, the more natural the end product. The review findings show for the majority of consumers, 'food naturalness is crucial'. These results correlate with findings from the 2012 Kampffmeyer Food Innovation Study⁴, which showed over 4,000 consumers considered food naturalness 'a decisive buying incentive' and almost 75 percent perceived a 'close connection between natural and healthy'. The 2015 Nielsen Global Health and Wellness Survey⁵, involving 30,000 consumers, found the most desirable food attributes were 'freshness, naturalness and minimal processing'. A clear definition of 'naturalness' would add transparency and clarity to the term, and as the definition varies between Member States, finding a single definition for the European market would be challenging but 'of value to the consumer'.

Although no widespread definition exists for 'clean label' products, a general consensus suggests they carry shorter, simpler ingredient listings, and embody the sustained drive by companies to remove artificial ingredients. 'Deriving a practical definition from conflicting opinions, while challenging, is an important step forward in quantifying just how substantial clean-label demand is across various markets,' explains Alan Rownan, research analyst at Euromonitor International. 'One such market, the UK, is showing impressive clean-label retail sales—valued at €14 billion in 2015 across packaged food, soft drinks and hot drinks.'

CASE STUDY

Packaging Challenge

Currently, astronauts on the International Space Station eat the same meal every 16 days; there's a lack of variation in space. The Japan Aerospace Exploration Agency (JAXA) is looking to change this, actively promoting its 'Japanese Space Food' certification programme with various food processing firms. Kenji Yamagata, JAXA, explains there is plenty of space for new product development, with packaging at the forefront: 'The food needs to last for a minimum of 18 months without refrigeration, while retaining taste, smell, texture and appearance.' One product to have recently received certification is Kameda Seiyaku Co. Ltd's Kaki No Tane 'permission seed' rice snack, which is packaged in a small covered tray with a Velcro latch, so astronauts can attach it to any fabric surface and prevent the pack from floating away in the zero gravity conditions. 'Japanese Space Food is being considered for use besides food for space,' says Kazuma Nogami, JAXA. 'It is also suitable as an emergency food source. By promoting the Japanese Space Food programme, JAXA is also looking to improve Japan's food safety standards.'



To meet consumers' desire for 'new' products, many companies have focused their innovation efforts on delivery formats and packaging in recent years. 'Typically, stick packs, gummy formats and on-the-go solutions are marketed successfully as innovated, as consumers can easily understand the benefits, immediately feel and see the difference, and appreciate the overall advantages,' says Dr Volker Spitzer, managing director of analyze & realize GmBH. 'In many cases, the right packaging can have a strong influence on purchasing decisions as consumers look for convenience and products that are easy to use and fit with their lifestyles.'

Interactive Packaging

'Interactive packaging is the future,' says Ken Collins, vice president of sales and marketing at Adcraft Labels. 'It encourages consumers to pick up, engage and interact with a product. As research shows⁵, once the consumer has a product in hand, their feelings of ownership and their willingness to pay more will increase.' While brands can grab their customers' attention with bright colours, shiny foils and bold words, encouraging interaction with their product will improve sales further. QR codes—though a diminishing form of interaction in Europe—were the start of interactive packaging. Now, most smartphones contain a QR (quick response) code



reader in the camera software, meaning users no longer need to download an app and can interact with QR codes more naturally. At the same time, companies are making their QR codes more visually appealing and directing them to more than just a company website; consumers can access discount codes or health information with a single scan. 'When promoting nutraceuticals and dietary supplements, companies need to instil confidence in their brands,' Collins explains. 'A great way to assure consumers they are buying a safe and effective product is to use a video—this information can be provided at the point of sale with interactive packaging.'

Jeff Hilton, co-founder and chief marketing officer at BrandHive, agrees: 'QR codes are fairly passé now, but smart packaging offers the opportunity to make an emotional connection with the consumer. Supplements need to tell their story, and engage the consumer in the story of the brand.' Augmented reality (AR) shows promise here as consumers can scan an icon or image with an app which then opens a video, animation or other interactive content for information about the product. As a 3D platform with more capabilities than QR codes, AR is likely to take off in interactive packaging.

Kevin Hill, online marketing manager at Quality Scales Unlimited, offers advice to brands looking the maximise the appeal of their packaging:

- Keep it clear and simple—minimalism is a game-changer for product packaging.
- Give it the human touch—original and engaging designs will catch attention. Work on hand-drawn or handwritten designs that show honesty and authenticity.
- Design it for extended use—the design concept should be easily extensible for new variations of sub-brands launched in the future.
- Make it practical and useful—re-sealable bags and re-fillable jars are more likely to end up on someone's kitchen shelf than disposable ones.

BRAND

- Don't embellish too much—packaging with an accurate representation of the actual product makes consumers happier.
- Go green—eco-friendly packaging has become crucial. Lower the carbon footprint and create a positive image for the brand with recyclable materials and minimal waste.

Healthy or Not?

Research on improving healthy eating has shown paternalistic strategies—which rely on educating consumers and increasing 'health consciousness'—tend to be ineffective. Research in Food Quality and Preference⁶ shows participants with low health consciousness rated a healthy food item as more appealing, and were more likely to

choose that item, when it was presented in picture rather than text format. 'Our research suggests one way to nudge people, especially low health conscious individuals, into making better decisions is not to highlight the healthfulness of healthy options, but rather to highlight the hedonic appeal of those healthy options,' explains Dr Denise Buhrai, Stony Brook University. 'Improving the diets of less health-conscious individuals is particularly important but also challenging, given they are not motivated to eat healthfully and associate healthy foods with less hedonic please—a key driver for their food choices.' The research found health-conscious people will choose healthy foods anyway, but Dr Buhrai says, 'the findings have practical implications for increasing healthy behaviours among individuals who are generally not health conscious.' Dr Buhrai suggests packaging uses images rather than text when transmitting information about healthy food behaviours and encouraging a healthy association with the product.

An earlier study from Stanford University⁷ suggests another way to reach less health-conscious consumers is to describe a healthier food as indulgently as an unhealthier one: the experiment showed an indulgent label increased consumption of vegetables by one quarter compared to the basic description. Bradley Turnwald, researcher at Stanford, explained, 'These results challenge existing solutions that aim to promote healthy eating by highlighting health properties or benefits, and extend previous research that used other creative labelling strategies to promote vegetable consumption in children.' These findings could have great potential for food manufacturers by encouraging consumption of healthier options. 'Our results suggest that describing healthy foods as delicious and indulgent may lead more people to choose them when compared to emphasising health,' continued Turnwald. This suggests healthy items may sell better when labelling focuses on taste and indulgence rather than on how healthy a product is.



Consumers choose products with green or white packaging, as they associate these colours with health, and elaborate flavour descriptions wooed the taste buds.

It is assumed purchase decisions by consumers seeking healthier snack options would be driven by nutritional and calorie content, but new research from Brazil⁸ has shown packaging design and price are far more likely to sway deliberators. Consumers choose products with green or white packaging, as they associate these colours with health, and elaborate flavour descriptions wooed the taste buds. Interestingly, the researchers found packaging even influenced how consumers found the taste—if they liked the packaging, they were more likely to enjoy the taste, and vice versa. Consumers would not purchase products purely based on their health claims, and instead chose offerings with leaves and

'light' designs and criticised where nutrition information was placed. They called for the nutrition information to be more clearly displayed and researchers noted 'high omega-3 content' and 'no additives' claims were the most likely to drive sales.

Sports Nutrition

In designing products for athletes, great consideration must be given to the delivery format and packaging, especially for products intended for use on-the-run. 'Our product was designed with the athlete in mind, both in packaging and also the weight of powder,' explains James Mayo, co-founder of SOS Rehydrate. 'The stick packs use an easy-tear material and rip fully across the top, so the athlete can store the stick in their pocket during a long run or triathlon, and then rip the top off with a sweaty hand, and pour the perfect dose of powder into their mouth before washing it down at a water station.' The product is designed to mix normally in a water bottle, but for many endurance events, weight is a key factor, and, as Mayo explains, this method reduces the need to carry a bottle if water is available along the course. 'With other methods of delivery—like large packs or tablets—this isn't possible,' Mayo continues.

For smaller sports supplement suppliers, reaching consumers means coming up with smart, innovative packaging targeting the core audience. 'Sports nutrition products need the visual disruption to compete on a crowded e-commerce platform,' says Robert Parker, owner of Roar Ambition. 'Our product needed a fresh take over existing soft container solutions, such as bags, pouches and gussets. Our rigid bottle that looks like a shotgun shell casing communicates the effects of our ingredients—enhance raw strength, focus and long-lasting energy.'

Mayo agrees, detailing the thought invested in their on-the-shelf packaging: 'The box containing our stick packs was designed with champagne or perfume packaging in mind, because we wanted SOS to stand out on the shelf. The mirrored surface gives that reflective twinkle to make it stand out from the rest.'

Standing Out

The need to stand out is echoed across industry sectors. Today, without differentiation, new products are potentially doomed for failure. 'The odds of not having competition in any new endeavour are next to impossible,' Wildrick says. 'Your packaging design is also your lead to all aspects of your marketing. It is critically important to make smart decisions in this area as it has the potential to make or break your success.'

Heather Hill, marketing manager at Nosco, adds, 'The industry is definitely trending toward more decorative packaging options, but supplements are still very visually more about the product than the look of the packaging. But because the market continues to expand, manufacturers have no choice but to make the packaging stand out. The competition is only getting fiercer.'

Anderson agrees, noting soft touch packaging can make the difference between picking up a product and buying it, or putting it back on the shelf: 'Soft touch is a growing trend in supplement packaging. It adds a little more texture than the usual slick, smooth feel from a label; it's another way to engage multiple senses so the consumer immediately recognises it's different.' He adds, 'Reference shapes can also be very powerful, especially because supplements have historically all come in very similar containers.'

Hill agrees, saying: 'We're seeing the market changing up shape to differentiate and help products stand out.'



The interesting thing about supplement packaging today is that it has new competition from functional food and beverages. Ingredients that go in supplements are now increasingly available in food and beverage applications. Supplement brands need to make their packaging more attractive to engage with

Jeff Hilton, co-founder and chief marketing officer at BrandHive

Sustainability

their customers.

'More than 85 percent of plastic marine pollution is attributed to Asia and Africa,' says Chris Smith, Applied Market Information. According to the Ellen MacArthur Foundation, 14 percent of plastic packaging used globally makes its way to recycling plants, while 40 percent ends up in landfill. Launched at the World Economic Forum's Annual Meeting in Davos in January 2017, research from the Foundation estimated by 2050 there will be more plastic than fish in the world's oceans.⁹

'There really is no excuse any more for excessive packaging that creates needless waste and damages our environment as it is technologically and practically possible to create less environmentally harmful alternatives,' says Richard Walker, managing director at Iceland.

Walker says the onus is on retailers to deliver meaningful change. 'Retailers occupy a critical place in the packaging chain; they have control over the materials used in their own-brand products and hold maximum influence on brand owner packaging decisions. Smith agrees: 'This could be the key to turning "recyclable packaging" into recycled packaging'.

Flexible plastic packaging is growing in popularity because it is lightweight, recyclable, affordable, and meets an increasing demand for packaged foods in developing countries. However, lightweight packaging can also expose delicate products to damage. There are also reports even though a packaging says it is sustainable, this is not always the case as certain elements are not always completely recyclable. 'We chose our current packaging based on the fact it is fully recyclable and to keep the quantity of packaging to the absolute minimum,' says Grace Simpson, brand manager at Goupie.

'As good as lightweight packages are, the most important aspect of packaging is to protect the product from the production facility through to use by the consumer,' Egan says. 'One cautionary tale is of Billa supermarket in Germany, which came under fire for selling peeled bananas on plastic trays covered in plastic wrapping.' The intent was to extend shelf life, however consumers raised concerns over the unnecessary excess packaging.

'Promises to eliminate plastics packaging ignores the fact that plastics packaging is ubiquitous for sound reasons,' Smith says. Plastics provide high levels of protection at low cost and weight, allowing food to be transported long distances with minimal waste. 'This matters because food waste carries a big environmental cost—a recent Wrap report estimated food waste accounts for 7 percent of global carbon emissions.'

Research from the Ellen MacArthur Foundation sets out three strategies intended to lead to the rate of reuse and recycling of 70 percent of plastic packaging increasing from today's recycling rate of just 14 percent⁹:

- Fundamental redesign and innovation is required for small format plastic packaging (sachets, tear-offs, lids, sweet wrappers, etc.) that represent 30 percent of the market by weight and often escape collection systems, ending up in the environment.
- Reuse could be economically attractive for at least 20 percent of plastic packaging, for example, by reducing single-use plastic bags with re-usable alternatives.
- Recycling represents an important economic opportunity for 50 percent of plastic packaging if improvements are made both to the design of plastic packaging and to the systems for managing it after use.

'We fully agree that flexible, lightweight packaging is useful for certain products, but we have to consider the protection offered by flexible packaging may not always be enough and could lead to overpackaging,' says Jesús Martin, key account manager at the Packaging, Transport and Logistics Research Centre, Madrid. 'Eco-design,

recyclability, packaging optimisation and active and intelligent packaging are fields which contribute to finding the perfect equilibrium to reduce packaging costs.'

'As sustainable and recyclable packaging becomes an increasingly important topic in the market for flexible packaging for brand owners and end users, the plastics and packaging industries are looking for ways to ultimately move to a monomaterial structure to make recycling easier,' says Mira Arts, manager at GEA. Egan agrees, pointing to a rise in alternative sustainable packaging, such as seaweed coating or eco plastic made from cornstarch.

'The EU's Circular Economy Package encourages the use of renewable and bio-based materials,' says Kranz. 'Already, the recycling rate for paper and board-based packaging is notably higher than that for plastic packaging in Europe.'



Six European organisations from the plastics value chain have committed to launching Circulatory Platforms in cooperation with the EC to reach 50 percent plastics waste recycling by 2040.

The EU Commission released its Plastics Strategy¹⁰ in January 2018, with an announcement the Commission has started the process to ban both intentionally-added microplastics and oxo-degradable plastics—these will be implemented as Restrictions under the EU's main chemicals law, REACH. Dr Michael Warhurst, executive director CHEM Trust, supports these restrictions: 'The strategy also announces actions to reduce single-use plastics,' he adds. 'Reducing plastic single-use packaging is an important policy priority. However, a shift from plastic to paper food packaging highlights the poor state of the EU's regulation of chemicals in food contact paper and card. The Commission's DG Health is starting a long-awaited review of these laws this year, and they must accelerate action in this neglected area of regulation.'

The EU's Plastic Strategy is seen across the industry as an important contribution towards achieving the objectives of a Circular Economy and tackling marine littering. Van Bochove says, 'EU minimum requirements for extended producer responsibility (EPR) will increase accountability for all private and public stakeholders. If implemented well, EPR and modulated EPR fees play an important role for producers' packaging design choices and boost innovation in the packaging supply chain.'

So far, six European organisations from the plastics value chain have committed to launching Circulatory Platforms in cooperation with the EC to reach 50 percent plastics waste recycling by 2040. The aims are to develop common goals and actions for a sector as large and fragmented as the European plastics industry, involving more than 60,000 companies, many of which are food manufacturers.

'If society's goal is to be sustainable, the aim should surely not be to pledge to eliminate plastic packaging, but to ensure any packaging used—whatever its material type—performs its protective role with minimal environmental harm,' Smith says.

The European Commission's first vice-president responsible for sustainable development, Frans Timmermans, agrees: 'If we don't change the way we produce and use plastics, there will be more plastics than fish in our oceans by 2050. The only long-term solution is to reduce plastic waste by recycling and reusing more—this is a challenge that citizens, industry and governments must tackle together.' Vice-president Jyrki Katainen, responsible for jobs, growth, investment and competitiveness at the EC, adds: 'This is a great opportunity for European industry to develop global leadership in new technology and materials. Consumers are empowered to make conscious choices in favour of the environment: this is a true win-win.'

Producing pretty and functional packaging means balancing the needs of shelf appeal against sustainability and functionality. As manufacturers seek to differentiate their brand from a crowded field of competitors, eye-catching packaging solutions are the answer to driving sales.

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