

Excessive Product Packaging

Product packaging has significant environmental impacts; it is prime time to realise that less is more.

How a product is packaged is critical to what it stands for and how well it sells. But over-packaged products incur a hefty toll on the environment as product packaging is usually discarded quickly, ending up in landfills. While product packaging may seem trivial, it actually has immense impact across the supply chain. Resource and wastage problems relating to packaging are significant given the vast quantities of products that are overdressed for no other reasons than to please the eye. Furthermore, in this current economic climate, where thrift is the order of the day, there is certainly no better time to rethink the ways consumers consume and producers produce.

The emphasis on sustainable development and living elicits improvements in every aspect of product development, including packaging. Besides protecting the product, packaging performs the role of directly representing the brand, thus no less important than the product itself, especially for products with little differentiation by nature. As discussed in July 2008 issue of the *HKI*, eco-design can be fully applied to packaging; asking questions on what materials are used, how the packaging is manufactured, how it is used and how it is disposed address all the relevant concerns. Manufacturers and product developers may in turn question the costs involved, but it should be understood that eco-designs of the product and its packaging are specifically intended not only to enhance environmental conservation, but also to save long-term production costs.



Rethinking Wasteful Extravagance

Extravagant packaging has become so prevalent in developed countries that unwrapping three layers of plastic and paper to eat a piece of chocolate is a regular practice, not warranting any further thought. However, the ramifications are significant; from the beginning of the product lifecycle with raw material extraction and product design to the end where product packaging is disposed.

Excessive packaging necessitates more materials, more resources to manufacture, so entailing more costs; naturally excessive packaging are physically larger and heavier which place greater burden on logistics, thus incurring higher financial and environment costs. Upon disposal, the composite nature of many product packaging makes it difficult to properly recycle, but even if packaging materials are straightforward enough for recycling, Hong Kong's fledgling recycling industry means wastes are most likely to end up at the landfills, which at the current rate, are expected to reach full capacity one after another between 2012 and 2015 at the earliest.

"Excessive packaging is only one aspect of a much larger environmental problem that is facing Hong Kong, however like all environmental problems it basically comes down to minimising wastes. So we should start with prevention – avoid waste products at the source," explains **Friends of the Earth (HK) Development Manager Janet Fok.**

Reducing the amount of packaging, which reduces CO₂ emission as less power and fuel are used for production and transportation, is conceptually critical in taking the first step towards a sustainable circular economy. For the remaining part, it is a question of reusing and recycling as much as possible with disposing at the landfills as the last resort.

Change

Committing fully towards green consumerism requires comprehensive government support. As highlighted in overseas markets, government

intervention is necessary as producers' and consumers' initiatives are not enough and most often are limited by cost considerations.

In one of the 'greenest' consumer societies on earth, Japan, stiff penalties, surcharges and taxes coerce producers and consumers to pay careful attention to the amount of packaging produced and disposed. Japanese authorities ensure that addressing the problem of consumer waste is done throughout the entire supply chain involving all stakeholders. In addition to brand owners, manufacturers, retailers and consumers, industry associations and NGOs are actively involved to go beyond minimum legal requirements. There are no less than eight environmental laws in Japan.



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"In terms of implementing environmental laws on green packaging or producer responsibility, Hong Kong has been comparatively slow. And in addressing excessive packaging, many developed economies as well as mainland China have laws governing how product packaging should be proportional to the actual product. We've pressed the Government to formulate a similar law but progress has been slow," explains Ms Fok.

The requirements of these laws currently in force in other jurisdictions vary considerably. For example, a German law on packaging requires manufacturers to collect and recycle product packaging after sales; a Japanese law restricts the size of product containers, limits the cost of packaging to 15 per cent of product's retail price and seeks recycling by manufacturers; while a Taiwanese law stipulates that the number of packaging layers cannot exceed three and a 2007 amendment requires New Year's gift packaging is reduced by 39 per cent in volume and 22 per cent in weight. A recent Mainland law, the provisions of which remain quantitatively vague, requires manufacturers to ensure packaging costs, materials, design and capacity for recycling are 'appropriate'.

Laws therefore are critical in setting up the right framework in which green consumerism can take place, however particular laws are not effective if they stand alone. Piecemeal legislations and initiatives that target one segment of the supply chain while neglecting other segments do not address the problem of waste for the entire supply chain, instead bottlenecks would be created, doing more harm than good. Thus objectives must be consistent and agreed upon by all supply chain parties. Besides the possibility of incurring financial penalties, positive financial incentives such as subsidies have a role to play. Subsidies can act as a short-term initiative or a kickstart measure; however subsidies are theoretically problematic as ultimately the government should play the role of supervisor and regulator while the cost of disposal and recycling is inevitably placed on manufacturers and consumers, as they are responsible for the product. It is this 'user pays' principle that sustains green consumerism.

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For manufacturers and brand owners, besides complying with legal requirements, they have to cater to consumers' demands. Consumer awareness on environmental conservation is increasing; retailers recognise this and are exerting pressure on manufacturers. In the US, large retailers have introduced a 'sustainable scorecard' where suppliers have to answer a range of questions that are assessed to produce an overall score. This score then serves as a key parameter in subsequent transactions.

Hong Kong designers have highlighted that there is indeed interest from brand owners but more often than not initiatives have been shot down by cost constraints. **Steve Lau, Twice Graphics Design Director** explains: "Environmental

packaging has yet to hit mainstream in Hong Kong, where costs and packaging attractiveness still reign as the primary criteria in packaging design."

Simple but Savvy

The current economic climate should elicit rethinking of the conventional; product packaging is no exception. "Simpler does not necessarily mean inferior, and since packaging is an intrinsic part of a product's brand, the challenge is to shift the emphasis to making clever innovative packaging designs that are simple, attractive, distinguishable and able to embody the brand's message," Mr Lau elaborates.

For manufacturers and brand owners, one thought experiment or area of consumer research that can be done involves determining what part of the packaging is likely to be immediately disposed by consumers even if the product is to be stored away. Packaging layers are typically distinguished into primary, secondary and tertiary, where the primary layer directly houses and protects the product, secondary and tertiary layers are the intermediate and exterior layers such as paper and cardboard/plastic sleeves and boxes. In gauging which part of packaging is deemed excessive, overseas studies show consumers almost always discard secondary and tertiary layers while keeping the primary layer.

Innovative and environmentally friendly packaging in Hong Kong is highlighted by a joint initiative between Maxim's Caterers Ltd and Friends of the Earth (HK) in 2008. Hong Kongers are no strangers to tin-boxed mooncakes, and it is well understood that disposing these tin boxes is problematic after the Mid-Autumn Festival; thus Maxim's launched a line of mooncakes that featured simple paper packaging decorated with Chinese paper cutouts to emphasise traditional culture. The single piece of packaging acts as both primary and tertiary layers.

There are concerns that environmentally friendly materials are more expensive, such concerns however can be countered with the clever utilisation (and minimisation) of materials.

Ultimately, the emphasis should be placed on creative and simplified use of materials. Some materials, like biopolymers, may be deemed environmentally friendly but in fact have adverse environmental impacts. For example, producing biopolymers is energy intensive and degradable materials tend to emit methane, a greenhouse gas.

The packaging industry, acting as suppliers for manufacturers, operates in competitive markets on tight schedules and profit margins; simple yet elegant packaging solutions minimise production time and costs. Cost savings are passed along the supply chain to the downstream and provide savings for consumers, who are inevitably concerned with price.

However the nature of some products demands substantial packaging, in which case efforts should be made to ensure the packaging is user friendly so that it does not need to be destroyed when accessing the product, and therefore can house the product for the product's entire life. A longer life for the packaging is facilitated significantly by its shape and size. Odd shapes and large sizes are not storage friendly, especially for the average Hong Kong household. Furthermore, if particular packaging needs to be extravagant, it can be designed so that it encourages consumers to permanently keep the package for decoration or household use, which also helps with the product's brand development.

"It really depends on individual designers and how innovative they can go. Currently, there isn't too much focus in terms of education and vocational training for design students in the area of green product packaging. This needs change obviously; greater consumer awareness, and perhaps more regulatory requirements on brand owners and producers, would push demand for green packaging training and expertise," further says Mr Lau.

Awareness and demand will definitely grow. As brands globalise, brand owners need to be aware of the environmental laws and consumer perception of various foreign markets; neglect



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could cost the brand owners dearly. Despite differences across markets, the undeniable global trend is towards greater environmental awareness.

A glimpse of future developments for green packaging is highlighted by the soon-to-be-released Comparative Packaging Assessment (COMPASS) software by the US-based Sustainable Packaging Coalition. COMPASS is an online application that allows packaging professionals to assess environmental impacts of their packaging designs using a lifecycle approach. Like eco-design tools, this software creates comparative environmental profiles of packaging designs based on lifecycle assessment metrics and packaging guidelines and standards.

Tools are becoming available, which means that agreed-upon standards and best practices are becoming more mainstream; Hong Kong brand owners and producers serious about global competitiveness can't afford to relegate product packaging to the sidelines. 🚀



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