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## Sachets and stick packs

capitalize on

packaging  
growth potential

# How convenience and the on-the-go culture drive packaging miniaturization across the globe

Today's consumer needs and preferences are changing: in urban areas, for example, they look for a more diverse choice in terms of functionality, price and quality of packaging for products such as condiments, instant drinks, nutraceuticals and pharmaceuticals. Generally, in developed countries consumers will gladly pay for products that make their hectic on-the-go lives a bit easier, while in emerging countries, small product sizes, such as stick packs and sachets, are more affordable than family-sized packages<sup>1</sup>. The amount of small, individual packages has therefore grown globally to meet these needs – in fact, it is expected that the stick pack unit volume will jump to 684 billion units in 2017, a growth of 12.2 percent compared to 2012<sup>2</sup>.

## Changing consumer demands require pack style adjustments

When new products are launched, or pack sizes are tested, manufacturers will firstly decide on a target market. Age has aided marketers' decision

making processes in mature markets around the globe since the 1950s, helping them to create demographics such as the baby boomers, Generation X and Millennials and thereby segmenting the market. In general, critical environmental events, such as wars, economic and technological changes, experienced in late adolescence and early adulthood, influence a person's buying behaviors so significantly that they remain with the person for a lifetime<sup>3</sup>. This can be seen in the generations' different focuses. While baby boomers, born between 1945 and 1958, prefer informality, Generation X (1960s-80s) worships diversity as well as individuality. Generation Y (1980s-2000s), also known as Millennials, are focused on convenience and choice to support their on-the-go lifestyle. Millennials are currently represented globally by 2.6 billion people. It is today's biggest and financially best situated age group. These modern digital natives have grown up in a time of fast-paced changes, and live in a world that is virtually overflowing with innovation, technology and choice<sup>4,5</sup>.

<sup>1</sup> Kasriel-Alexander, D. (2015). Top 10 Global Consumer Trends for 2015. Euromonitor International.

<sup>2</sup> Allied Development Corp (2013). Stick Pouches; Global Markets, Economics, Environmental Impact, and Technologies 2013 to 2017.

<sup>3</sup> Parment, A. (2013). Generation Y vs. Baby Boomers: Shopping behaviour, buyer involvement and implications for retailing. *Journal of Retailing and Consumer Service*. 20, 189 – 199.

<sup>4</sup> Meredith, G., Schewe, C.D., Karlovich, J. (2002). *Defining Markets, Defining Moments: America's Seven Generational Cohorts, Their Shared Experiences, and Why Businesses Should Care*. John Wiley & Sons, New York.



In this fast changing social environment, Millennials have developed a complex and active lifestyle where little time is spent at home, resulting in the need to have the products that they consume, such as foods and medications, to be adapted for carrying and consuming on-the-go. Here, snacks and other small packaged products are a consumer's perfect companions. Research also shows that snacks constitute 50 percent of all eating occasions, compared to the traditional three meals a day<sup>6</sup>. Nevertheless, the trend for smaller product

sizes in the form of snacks has not only been influenced by the millennial lifestyle, but also by urbanization and demographic changes. As more people move from rural to urban areas, average living space per person and therefore also food storage capacities decrease, resulting in a higher need for more accessible packages. Moreover, as the number of single households is constantly growing - and already represents one fourth of US citizens - family-sized packages and other large quantity packaging is no longer in demand to the extent it used to be<sup>7</sup>.

<sup>5</sup> Kasriel-Alexander, D. (2015). Top 10 Global Consumer Trends for 2015. Euromonitor International.

<sup>6</sup> Hartman Group (2014). Outlook on the Millennial Consumer 2014. Available online: <http://store.hartman-group.com/outlook-on-the-millennial-consumer-2014>

<sup>7</sup> Watson, E. (2015). Eating alone, continuous snacking and the slow death of the primary shopper: 10 things you need to know about the changing American consumer. Available online: <http://www.foodnavigator-usa.com/content/view/print/1151154>

The trend towards smaller packages is not only based on external factors, such as cultural and demographic changes. Research shows that consumers in general often define themselves by the products they purchase and that possession reflects and projects the individuality of this person to others. This growing sense of individualism also means that people are increasingly trying different products and brands to find the perfect match for their individual tastes<sup>8</sup>. Consumers do not only identify themselves by their purchases, but also visit stores more frequently to purchase goods that suit their



current moods. They are moving away from large, weekly shops, bulk buying and home cooking<sup>9</sup>.

Today's consumers are active participants in the so-called "gym culture", placing emphasis on physical fitness and looking to complement healthier food and workouts with supplements and nutraceuticals, both at home and on-the-go. Here, for example, it is no surprise that the second largest consumer group of stick packs is in the dry healthcare category - including nutraceuticals and pain relievers<sup>10</sup>.

### **Stick packs and sachets – the all-rounders showing strong growth potential**

Individual packs, such as sachets and stick packs, are universally convenient and are becoming increasingly popular for virtually any application. A stick pack is partially defined by its shape: it looks like a stick or a tube, having a long, slender configuration. Typically, a stick pack is at least four times longer than its width, with a common length ranging from 40 to 200 millimeters. Sachets on the other hand are usually flat, as opposed to the round or oval cross section of the stick pack, and have a three or four-side-sealing<sup>11</sup>.

In today's hectic world, consumers want not only products but also healthy food and beverage options instantly. Next to convenience stores,

<sup>8</sup> Mittal, B. (2006). I, me, and mine – how products become consumers' extended selves. *Journal of Consumer Behaviour*. 5 (6), 550-562.

<sup>9</sup> General Mills (2014). C-Store Consumer Research. Available online: <http://www.generalmills.com/industries/convenience/support-tool-categories/consumer-insights/a-view-of-millennial-convenience-store-shoppers>

<sup>10</sup> Allied Development Corp (2013). *Stick Pouches*; Global Markets, Economics, Environmental Impact, and Technologies 2013 to 2017.

<sup>11</sup> Allied Development Corp (2013). *Stick Pouches*; Global Markets, Economics, Environmental Impact, and Technologies 2013 to 2017.



the on-the-go generation seeks out healthy fast food restaurants (36 percent) and coffee shops (15 percent) for their variety of accessible options<sup>12</sup>. As an alternative, more and more consumers are turning to products packaged in stick packs and sachets. For instance, drink mixes for bottled water provide great convenience as they are easy to transport due to their low weight and small size as well as to open. Other particular favorites are condiments, such as ready-portioned spice mixes, and single-serve beverages including coffee, tea and hot chocolate. The hospitality industry in particular

relies on stick packs and sachets, where items such as sugar, milk, coffee creamers, drink mixes, yogurts and ketchup are all packaged in a convenient size format<sup>13</sup>.

For non-food goods, such as toiletries including shampoo, shower gel and body lotion, these single serve packaging technologies provide the perfect product vessel. Other areas of use include cleaning products, such as detergent, that are sold in single portions. Overall, the personal care market is said to be growing from 9.4 billion stick pack units in 2012 to

<sup>12</sup> General Mills (2014). C-Store Consumer Research. Available online: <http://www.generalmillscf.com/industries/convenience/support-tool-categories/consumer-insights/a-view-of-millennial-convenience-store-shoppers>

<sup>13</sup> Allied Development Corp (2013). Stick Pouches; Global Markets, Economics, Environmental Impact, and Technologies 2013 to 2017.

a forecasted 22.6 billion units in 2017 - a development that equates to a growth rate of 19.3 percent per year<sup>14</sup>.

The pharmaceutical and nutraceutical markets also offer remarkable growth opportunities. Pharmaceutical products, such as pain relievers and cold and flu medications in stick pack and sachets, show a strong worldwide market growth potential, with an annually growing demand in pharmaceutical packaging of 6.4 percent in average to 90 billion dollars in 2017<sup>15</sup>.

Nutraceutical products like magnesium powders, probiotics and fiber are also available in handy stick pack form. This segment has experienced a similar growth spurt to pharmaceuticals, with the global market worth 183 billion dollars as of 2015, and is expected to rise to 279 billion dollars by 2021 - a compound annual growth rate (CAGR) of 7.3 percent<sup>16</sup>.

### The competitive edge

The competition between sachets and stick packs - as in other pack style industries - is strong. Sachets in particular have already begun to address the competition. They are available in a range of sizes featuring flexible spouts in order to create a more stick pack-like method of dispensing. Sachets are flexible and can

be designed in creative shapes. Compared to stick packs, sachets offer a larger surface area, presenting the perfect opportunity for unique branding. Unusual shapes and creative branding let the sachet pack stand out at point of sale. Producers of cups and trays have also reduced the weight of their packages in order to compete with the lighter sachets and stick packs.

Additionally, pharmaceutical producers will profit from a stick pack or sachet package due to the single-dose packaging offering just the right amount of product, ultimately reducing product waste. Moreover, industry bodies invest greatly in research and development (R&D) programs to generate sufficient new solutions to maintain the differentiation potential of new packaging technologies, including evolving existing package designs.

From an economic point of view, stick packs offer the potential for reduced material costs and have lower total packaging costs compared to sachets. Sachets, on the other hand are filled at a 25 percent faster rate than stick packs.

Lastly, the above-mentioned high consumer demand for products that provide convenience is a definite industry driver. Whether food, non-food or pharmaceuticals, pre-measured, single-dose packages provide just the right amount of product inside<sup>17</sup>.

<sup>14</sup> Allied Development Corp (2013). Stick Pouches; Global Markets, Economics, Environmental Impact, and Technologies 2013 to 2017.

<sup>15</sup> Freedonia Group Inc (2011). WORLD Packaging Machinery to 2014.

<sup>16</sup> Transparency Market Research (2015). Nutraceuticals Market (Functional Food ,Dietary Supplements, Dietary Supplements,

personal care And Pharmaceuticals) - Global Industry Analysis, Size, Share, Growth, Trends, and Forecast 2015 - 2021. Available online: <http://www.transparencymarketresearch.com/global-nutraceuticals-product-market.html>

<sup>17</sup> Allied Development Corp (2013). Stick Pouches; Global Markets, Economics, Environmental Impact, and Technologies 2013 to 2017.



Millennials, with their considerable spending power, represent a steady and significantly mid-end segment of society whom manufacturers' of stick pack's and sachets need to attract in order to remain competitive<sup>18</sup>. Single-serve sachets and stick packs are the perfect fit for consumer demands for convenience and choice, yet also come with significant benefits from a production point of view. Sachets and stick packs tend to be considerably more cost-effective, both in terms of distribution and packaging, when compared to larger packs. For example, the pack formats can apply but do not require complicated design processes for container shapes or closures needed. On the other hand, effective distribution strategies, in combination with packaging innovations and quick turnovers at Point of Sale (POS), have

lowered the cost per unit to be even cheaper than larger pack sizes of the same product<sup>19</sup>.

In addition, stick packs and sachets have substantially higher retail prices than the same products in a multi-dose container due to their small pack sizes cannibalizing larger formats, resulting in less demand. Millennials as well as customers in emerging countries worship the choice that come along with stick packs and sachets. Here they can test various products without having to buy the more expensive standard-sized format. All in all, the average worldwide market volume for stick packs and sachet systems is very lucrative and is currently worth 460 million Euros<sup>20</sup>. With a market this large, the possibilities for growth in this area via new packaging technologies present manufacturers with opportunities that cannot be ignored.

<sup>18</sup> CEB iconoculture report: <https://www.cebglobal.com/exbd/marketing-communications/iconoculture/millennials/index.page>

<sup>19</sup> Singh, R., Ang, R.P., Sy-Changco, J.A. (2009). Buying less, more often: an evaluation of sachet marketing strategy in an emerging market. *The Marketing Review*, 9 (1), 3-17.

<sup>20</sup> Allied Development Corp (2013). *Stick Pouches; Global Markets, Economics, Environmental Impact, and Technologies 2013 to 2017*.

## Top tips to capitalize on stick pack and sachet packaging potential

To reap the rewards of the market opportunities presented by this fast moving market, manufacturers need to ensure their packaging technologies addresses the following points:

### Flexibility

As the market requires different sachet and stick pack dimensions, high flexibility is required. Different dimensions should be produced and packed on a single machine by simply changing formatting parts. Format changes and infeed of packaging material must be realized quickly and easily in order to guarantee a smooth production flow. Also, the output should be adjustable from low to high to address fluctuation demands and optimize warehouse storage – avoiding bottlenecks.

### Performance

Automated sachet and stick pack handling not only has to generate different pouch dimensions, but also needs to produce large volumes of pouches to stay ahead of the competition. State-of-the-art equipment gives manufacturers the best performance ratio of packs per minute per m<sup>2</sup> of production floor space.

### Dosing accuracy

The system needs high dosing control to comply with the most stringent requirements possible. Modern systems have integrated in-line weight controls to guarantee high accuracies. This is especially crucial for pharmaceutical products with generally stringent regulations. A high dosing accuracy also implies less product loss and higher productivity.

### Overall Equipment Effectiveness (OEE)

Stick pack and sachet lines must operate at high OEE levels from the very beginning in order to be of interest to manufacturers running at mass production. The overall goal is to maximize output at best quality with a fast return on investment (ROI).

### Hygienic design

Packaging lines need to be easy-to-clean, offering optimized user accessibility and hygienic design. Also, ergonomic aspects such as a user-friendly operation height and good visibility to the production flow allow for optimal and easy operation.

To sum up, flexibility will remain the most important attribute of a machine, as enabling different packages to be produced in a short period of time is crucial in today's market. The right stick pack and sachet system can boost OEE, delivering the highest output in the smallest space and reducing life cycle costs (LCC)<sup>21</sup>.

Taking everything into consideration, consumers will benefit from more choice at lower prices of sachets and stick packs, while being able to indulge in a wide variety of styles. Furthermore, these unique pack styles offer convenience in forms of easy transportation, availability and

usage - especially for those consumers with reasonable disposable income living with an on-the-go ethos. For manufacturers, the positive market projections offer great investment opportunities throughout promising global markets<sup>22</sup>.

The Bosch sachet and stick platform enables manufacturers to grow their market share and meet fast changing market demands. Using Bosch's cutting-edge technologies, supported by proven market expertise, gives producers the flexibility, speed and reliability to meet cost-effective high quality standards.



<sup>21</sup> Allied Development Corp (2013). Stick Pouches; Global Markets, Economics, Environmental Impact, and Technologies 2013 to 2017.

<sup>22</sup> Allied Development Corp (2013). Stick Pouches; Global Markets, Economics, Environmental Impact, and Technologies 2013 to 2017.



#### **About the author**

Since August 2011, Frank Bühler has been the product manager responsible for international machine business development and after-sales applications for stick pack and sachet systems at Bosch Packaging Technology in Beringen, Switzerland. He holds a master's degree in mechanical engineering and international sales management.

#### **About Bosch Packaging Technology**

Based in Waiblingen near Stuttgart, Germany, and employing 6,100 associates, the Bosch Packaging Technology division is one of the leading suppliers of process and packaging technology. At over 30 locations in more than 15 countries worldwide, a highly-qualified workforce develops and produces complete solutions for the pharmaceuticals, food, and confectionery industries. These solutions are complemented by a comprehensive after-sales service portfolio. A global service and sales network provides customers with local points of contact.

For more information, please visit [www.boschpackaging.com](http://www.boschpackaging.com) or contact:

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