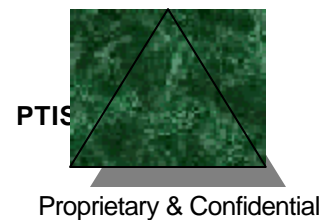


The Contribution of Packaging Innovation to Total Product Value
Packaging Innovation: Growth in Balance

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Packaging overview

This paper will describe how packaging has made significant contributions to innovation and total product value over time, and will also discuss the importance of growth in balance through packaging.

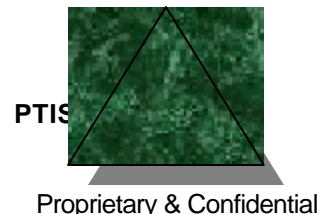
In order to fully describe the contribution to packaging, we will review significant background information, trends information and discuss the role of innovation and productivity. We will also review traditional models for the packaging value chain as well as new models that identify the consumer and the retailer as a much more important component of the chain. We will further review traditional and optimized packaging development processes to help the reader understand how to go after better packaging from a top and bottom line growth standpoint. In addition, there will be some value added model examples and case studies to further detail the value and contribution packaging affords. Finally, we will bring all the information and knowledge together to show you how packaging contributes to product value in particular and how it contributes to new top line growth.

Historical perspective

So much has changed over the last 25 years, both in the United States and globally. Times have changed. The consumer and retailer have changed. And the supplier and consumer packaged goods companies (CPGs) have changed. In the past 25 years we have moved from a mass-market to a segmented market and now to a fragmented market. This has created much opportunity as well as difficulty for the packaging industry. Twenty-five years ago, maybe even ten years ago, the primary food retailer was your traditional grocery store where you were able to purchase a few SKUs in a few flavors with very little action on the periphery of the store. Now channels abound and you can get multiple flavors and multiple SKUs in multiple channels from gas and convenience, through club and mass markets.

Another major change is all of the acquisitions and mergers across the packaging sectors. These include consumer packaged goods companies, retailers, and the supplier base.

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Packaging is a tool, a critical tool to the total value proposition

Remembering back to your college days in Packaging 101 we all learned the package is the product. Only after years of working in the field do we really understand what it means to say the package is the product. Consumers and retailers buy the product based on the package. The package is the product delivery system. The **product = product + package + equity**. In order to use the product you need to interact with the package. The package plays an important role in helping the consumer utilize and interact with the product. Top consumer trends include taste, convenience, nutrition, value, variety and fun. All of these trends have packaging relevance. Smart marketers are realizing that packaging is an important sales tool. And most importantly to get both top and bottom line efficiencies and grow, you need to think about packaging and engage the packaging function early in the process to realize it's true value.

Total U.S. food expenditures 2001

The current market size is about \$855 billion in the United States for food and beverage. Annual growth rate is between 1 and 3 percent and approximately 50 percent of this number is in foodservice and about 20 percent of the overall number is in beverage (Food Marketing Institute, 2001). There are approximately 11,000 new products introduced each year with less than one-third of these products surviving more than two years.

Trends

The major consumer trends will be reviewed with their relevance to packaging as an effort to integrate packaging into the overall proposition.

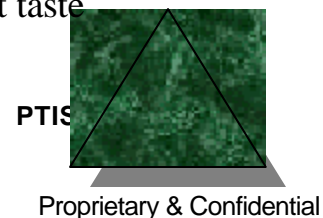
What consumers are looking for

Consumers are looking for taste, value, convenience, variety, nutrition, fun and time savings wherever and however they can get it.

Taste

The importance of taste is critical to consumer acceptance and there is very little trade-off when it comes to taste. Packaging can impact taste

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perception. For example clear windows signify the product is fresh. Foil can signify the product is hot or cold.

Value

Consumers are looking for value now more than ever. Just look at the proliferation of club stores over the last decade. Packaging's contribution to value includes shape, size and variety, portion control, and club and multipacks. You can influence consumer's value perception with packaging, too. For example foil and simple graphics tend to connote premium products, while white with limited color printing signifies private-label cheaper products. As consumers recognize and use value added features on branded products these features soon become the ante on all products in that category, i.e. zippers on shredded cheese.

Convenience

Convenience is probably the biggest trend in packaging today. Packaging convenience includes single serve packages, portable and on the go packaging, easy open and reclosable packaging, packaging kits, spill resistant, utensil free, clean up free and anything you can provide to help consumers save time. And note the proliferation of bowls!

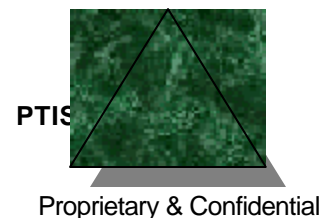
Variety

Packaging's contribution to variety includes shapes, textures, sizes, flavors, combinations and new news for the retailers across channels, and for the consumer.

Nutrition

The contribution of packaging to nutrition includes taste perception via packaging, portion control, and providing a clear and understandable message on the package. With baby boomers aging, readable packaging is becoming more critical. In fact, with the critical obesity challenge we have in the United States portion control packaging could provide an important contribution to helping deal with this problem.

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Fun

Fun in packaging is becoming increasingly important. Colors for both the product and package are everywhere and in every channel. Gimmicks and promotions are back – just look down the cereal aisle in your store. And they are doing a pretty good job even though no one seems to like cereal package functionality. Packaging is leading the evolution of the store to an entertainment center, and creating some unique opportunities in merchandising.

Time

Last but not least is time. Time is critical to consumers now more than ever. The average consumer in the United States spends less than half an hour on meal preparation on average. In many cases cleanup takes more time than the actual meal preparation. Bowls and stand up bags seem to proliferate all channels and are very popular with consumers because they provide easy use, preparation and clean-up. Packaging can save the consumer time in shopping as well.

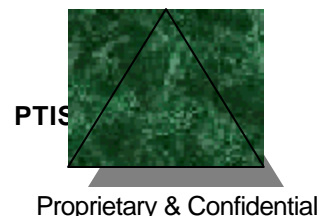
Sloan (2000), Global New Products Database US report 2002 predictions and Messenger's Morning Cup (2002) provide significantly more substantiation and quantification to the information reviewed.

Retail and Channel trends

Retail grocery has more periphery and fresh products and have added significantly to their home meal replacement offering. Convenience and gas are adding many new single serve convenience products. In fact 50 percent of soft drink purchases are for immediate consumption. Vending is not only for soft drinks. You can now buy snacks, candies, water and nutritional drinks in dedicated vending machines.

Club stores continue to grow and many major retailers have greater than 15 percent of their volume at Wal-Mart stores. Food service, in particular restaurants, are seeing a growth in packaging. Takeout occasions have increased every year since the early 1980s. For some restaurants, take out is about the same volume and sometimes can exceed dining in

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occasions. In fast food, drive through and take out have exceeded dine-in for several years. We must not forget e-commerce. It does provide an interesting new channel and appears to be struggling relative to some estimates, but based on consumers wanting to save time, it is likely to grow significantly in the next decade.

Based on this information you can see that packaging has been an important part of the overall transition from a mass-market grocery to all the new channel proliferation. In fact, one can argue that packaging made all of this happen.

CPG's and Suppliers

With all of the mergers and acquisitions CPGs and suppliers are also beginning to think about packaging differently. There's been a significant push to take costs out of the system by both parties and packaging is the place where everyone seems to look first. As a result there is less innovation in packaging and there is less top line growth. By providing innovation in balance: topline packaging innovation and productivity initiatives, everyone wins.

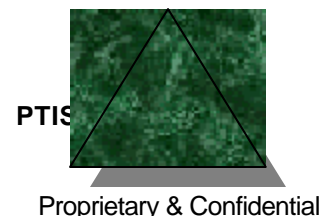
As a result of the mergers and acquisitions there has been much downsizing of the packaging functions and yet none of the work goes away. This trend will have interesting implications as we move forward and try to understand how to provide innovation and productivity at the same time in the same year with fewer resources.

Because of all these changes, it is now more important than ever to focus on the highest priority projects and programs. We need to think about the channels, the consumers and resources, both internal and external, to make sure we are working on the most meaningful packaging projects.

Packaging value chains and processes

Figure 1 shows the traditional packaging value chain reading from left to right. By reading the value chain from right to left, you can get a much better idea and understanding of how packaging can provide new opportunities to different parts of the value chain.

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The traditional packaging development process has rarely included packaging in the upfront assessment. In this process, marketing develops an idea, works with market research and product development to develop the product, and then towards the end of the process involves packaging. As a result there is little packaging can do to contribute to top line growth and may negatively impact bottom-line costs because of the many channels the new product will be marketed through. This model often results in a sub optimal launch and a very expensive commercialization effort because packaging is considered too late in the process.

The optimized package development process includes packaging being thought of upfront, with a cross functional team developing the ideas together, defining the leadership and identifying milestones and success factors for the project. In this process, competitive information work and an audit are completed upfront so as not to reinvent the wheel. The cross functional team working together recommends consumer work and all channel launches. Additionally, the cross functional team manages the project through the commercialization process, providing appropriate metrics and measures to validate success.

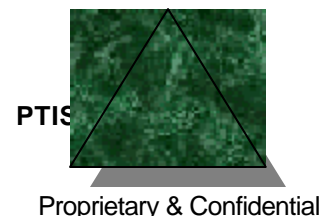
Examples and case studies

Examples and case studies are reviewed in table 1 and the following examples demonstrate the contribution of packaging innovation to total product value. Some of the examples may actually represent innovation in balance.

Summary

This paper described how packaging can be an important contributor to overall product success providing topline sales growth and bottom-line efficiencies. Packaging has been a key contributor to innovation across all the packaging sectors and we hope we have convinced you that thinking about packaging early in the process will provide added value packaging at the lowest possible cost. New packaging also provides new productivity project streams while fueling new supplier and raw material supplier technology opportunities, leading us into virtuous packaging opportunities and packaging in balance.

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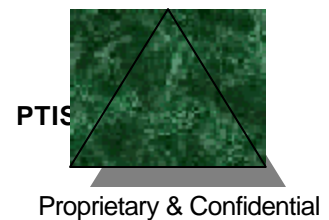


Figure 1

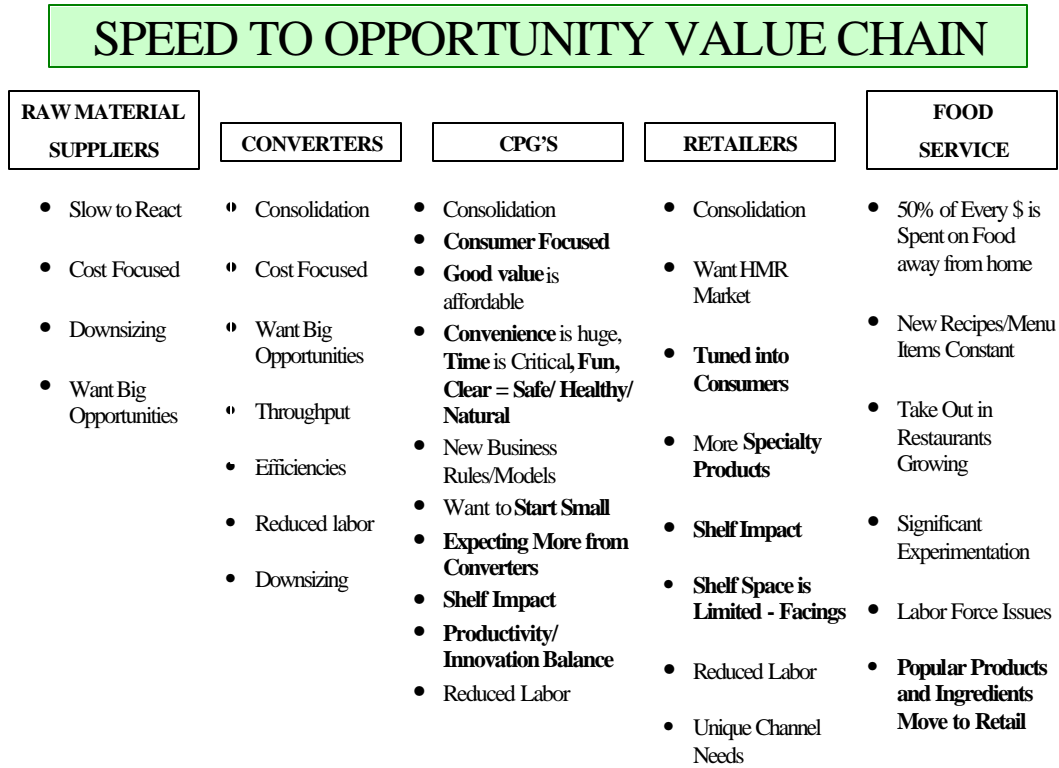
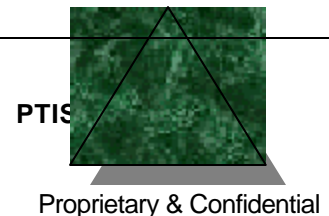


Table 1. New Products in New Packaging

Product	Feature	Function
Gatorade	One-way valve	Reduce/eliminate spillage
Sports drinks/water	Squirt tops	Eliminate spillage/on-the-go
Lunchables	Compartments/Multicomponents	Texture/convenience
Shredded cheese	Tear tape/zipper	Easy to open and close, freshness keeping
Heinz catsup	Novel Plastic closure	Convenience/liquid trap in cup disposable
Reynold's Gladware	Inexpensive	Disposable/Some Reuse Value
It's Pasta Anytime	Microwave package/partially processed pasta	Taste/convenience/fresh-like
Miller Beer	Plastic bottles	Safety/convenience, neater
Starkist tuna	Retort Pouch	Neater/Convenience/Safety

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Deans Milk Chug	Plastic bottle	Fun/portable/modern/cool/safe
Colgate 2-in-1 Toothpaste and mouthwash	Stand up PET	Shelf impact/ convenience/modern
Gum/mints	Rigid plastic	Self impact/novelty
Tissues	Special holographics	Decorative/fun
Motor oils	Off-center spouts/plastic	Convenience/reduced spillage
Cookies/crackers	Stand-up bags	Easy open/reclosable/portable
Yogurt	Plastic tube	Portable, no utensils needed

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