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Got growth? Opportunities and challenges for U.S. Dairy industry

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U.S. dairy faces a future with a flat domestic market, but not without growth opportunities

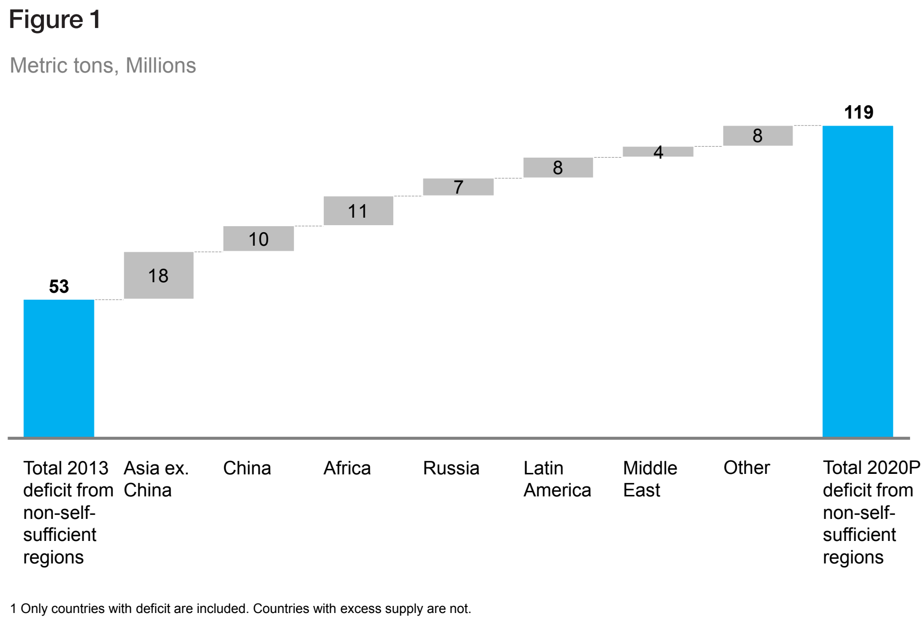
The domestic and global dairy markets promise exciting opportunities for companies willing to adapt to a continuously evolving consumer market.

That message may sound surprising amid the gloomy data from the traditional U.S. dairy market: notwithstanding a few categories, per capita consumption has been essentially flat and overall growth has been almost entirely driven by population growth. More worryingly, much of this stagnation stems from increased competition for “share-of-stomach” from alternative foods and beverages. And more consumers are questioning the implications of dairy consumption on a whole range of concerns, from health and wellness to environmental sustainability and animal welfare.

But the story starts to look very different once we cross U.S. borders. In major emerging markets such as China and India, economic growth has raised millions of people into the consuming classes, with simultaneous per capita annual consumption growth for dairy products (6.1% and 3.6% respectively).

Many of these emerging markets have a net deficit of milk: their local production is not enough to fulfill demand. McKinsey’s Global Dairy Supply & Demand model projects that by 2020, countries with a milk deficit will need to rely on imports or increase in domestic production for the equivalent of 119 million metric tonnes of milk, a 66 million increase from 2013 levels **(see Figure 1).**

Figure 1: Projected milk deficit for dairy importing markets



Source: McKinsey Global Supply & Demand model

U.S. dairy manufacturers will need to strategically consider growth options

The global imbalance of dairy consumption growth leaves U.S. dairy manufacturers with the option of chasing international growth or competing for share in an evolving and competitive home market.

Based on our research, we believe there will be four strategic responses U.S. dairy companies should consider to capture growth in this evolving environment:

1. *Global growth:* Some manufacturers will grow by capturing share in the global dairy trade, through best-in-class international export and local production capabilities.

2. *Growth beyond traditional business models:* Manufacturers excited about the prospects of ingredients and product categories beyond the traditional dairy will succeed by redefining their business and broadening their consumer base. Focusing on these markets require fit-for-purpose divisions and focused sales.

3. *Insight driven innovation:* Consumer preferences are evolving faster than they ever did before, particularly among Millennials. Manufacturers with top-notch consumer insights capabilities and best-in-class product development capabilities can win consumers over through innovative product portfolios.

4. *Operational and performance excellence:* The dairy industry has certain unique features that make it critical for manufacturers to achieve operational cost excellence. In order to remain cost competitive, dairy manufacturers will need to focus on network optimization, manufacturing and procurement efficiencies, supply chain & logistics, and in-store execution.

Manufacturers who focus on a combination of these strategies will be best positioned to find growth in a competitive dairy landscape.

I. Despite recent volatility, international markets show great promise for U.S. dairies—if they are willing to commit

Driven by large supply deficits in emerging markets, the U.S. has steadily grown its total dairy exports over the last 15 years across several dairy sub-categories **(see Figure 2).** For example, by 2008, U.S. producers had caught up with the EU in the percentage of total milk-solids production destined for export: ~11%. However, EU and New Zealand exports prevail in the world's largest deficit markets. In 2014 the U.S. accounted for only 8% of Chinese market in volume of milk equivalent, while the EU and New Zealand account for 12% and 72% respectively.

This U.S. export growth may just be the start of a possible global development story. U.S. milk production costs in 2013 were lower than the average cost of the EU **(see Figure 3)**, yet the U.S. exported approximately 60% less dairy products than its EU counterparts. Despite the recent growth in U.S. exports and opportunity to capture additional share, only 40% of executives surveyed are planning to expand their exports and 17% have expanded their processing capacity abroad in the past 5 years.

> "Exports are necessity more than a want. The dairy industry must leverage demand in emerging markets or US farmers will be in trouble."
>
> *U.S. dairy executive*

U.S. dairy manufacturers still have an opportunity to capture their fair share of the global dairy market. An analysis of the top five dairy companies in the EU revealed that close to 50% of their total sales revenue came from sales outside of the EU. An analogous view of the top five U.S. dairy processors and IDFA members revealed that less than 15% of total sales revenue was captured through sales outside of the U.S.

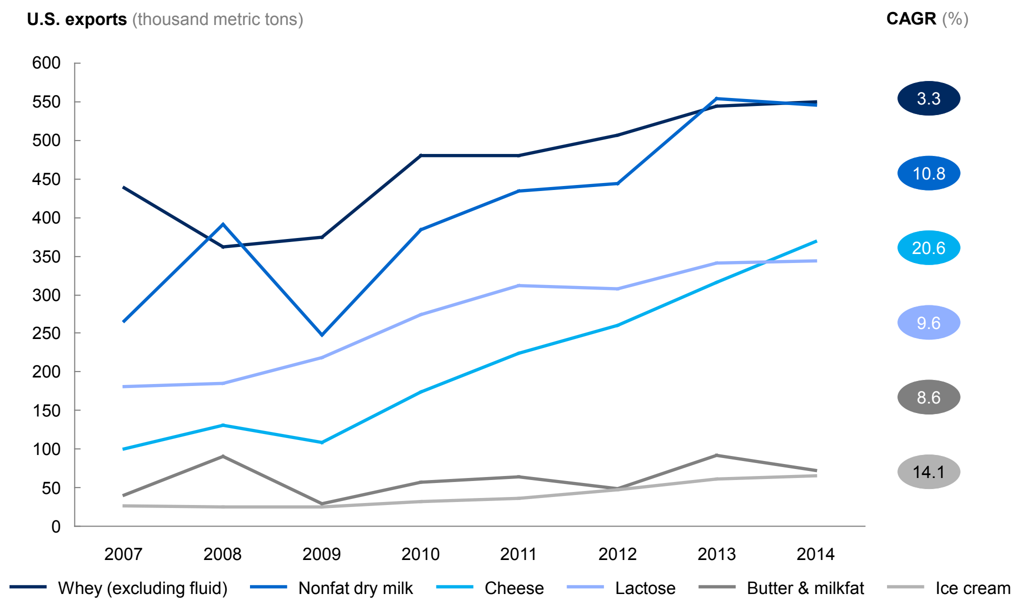
Finally, EU dairy processors appear to invest more on developing international capabilities. The top five EU dairy processors have in average 3x more board members of international background than their U.S. counterparts.

Companies eager to capture international growth need to navigate increasingly complex regulatory and trade environments. Since just 2014, the market has experienced volatility and price dives due to an agricultural embargo from Russia, an oversupply of milk powder in China, and the abolition of the production quota in the EU. Meanwhile the Trans-Pacific Partnership

(TPP), if ratified, may create opportunities with new and existing trade partners. Currency fluctuation also plays a role in international trade. From January 2014 through September 2015, the U.S. dollar has gained ~25% value against the New Zealand dollar, making U.S. dairy more expensive to international buyers. In the same period, exports declined by ~30%.

Figure 2: U.S. export growth from 2007-2014 across dairy sub-categories

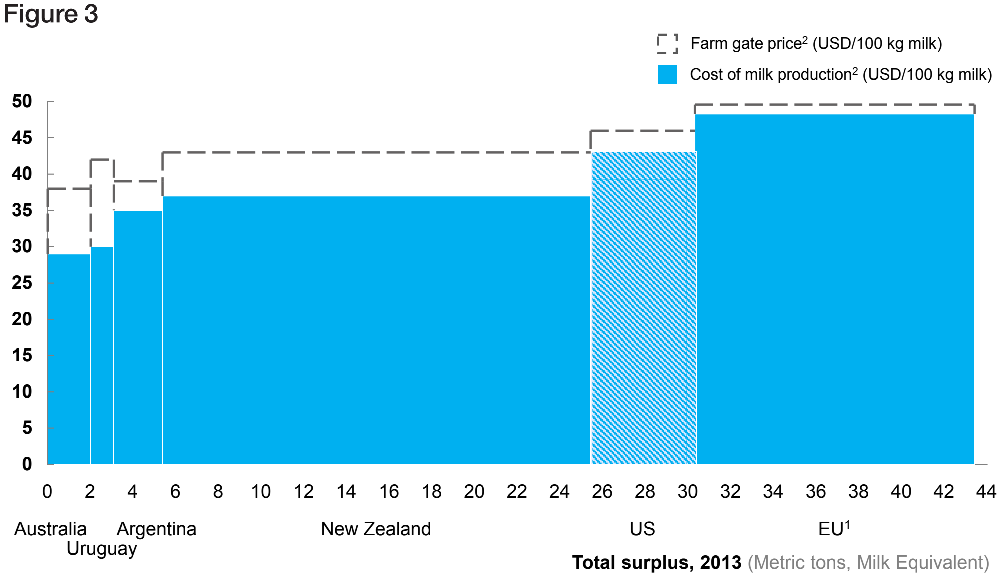
Figure 2



Source: USDEC

Figure 3: Comparison of Milk production costs vs. total export volume for top exporting dairy countries

Figure 3



1 Cost of milk production uses a weighted average of Germany, France, UK, Netherlands, Poland, Italy, Ireland
2 Based on production costs at an average-sized farm in each country

Source: IFCN Dairy report 2014, McKinsey Global Supply & Demand model, FAOStat

In order to successfully export to or produce and sell dairy products in international markets, U.S. dairy manufacturers will need to keep a few considerations top of mind:

A. **How can you more deeply understand consumption and supply trends in global markets?** Companies willing to explore global markets will need to understand and closely monitor global dynamics and how key players influence micro-market opportunities. Also, competing effectively in some markets will require getting a granular understanding of regional consumer segments. Taste preferences, specification requirements, and demographics will vary dramatically from market to market, requiring products to be adapted to meet local preferences. For example, the aging population will have profound demographic implications in Indonesia. Those aged 50+ will increase a staggering 84% between 2012 and 2030, suggesting great opportunity for products filling specific needs of aging population[1].

B. **Are you ready to recruit top people and commit your best resources to provide consistent and reliable services to international customers?** International customers will expect consistent, world class service. At times historically, U.S. producers have been inconsistent and unreliable international suppliers, a result of responding to domestic regulatory incentives. Investing in an international business will require manufacturers to commit to maintaining their relationships and allowing for longer payback horizons, despite short-term opportunities in the domestic market.

C. **Should you go alone or enter a partnership with other international dairies or global customers?** Many European dairy companies as well as non-dairy U.S. companies have competed successfully in international markets for some time. Building partnerships with other manufacturers who have the required local customer relationships and distribution networks can accelerate entry into a new market. Following global customers into new markets can also provide leverage for entry. For example, to support future demand for non-carbonated soft drinks, a leading global beverage company partnered with bottlers in Brazil to acquire local non-CSD producers.

D. **How can you create a holistic risk management program to deal with commodity and currency volatility?** Competing abroad can expose companies to more volatility from currency fluctuations and political dynamics, making risk management with a professional team with expertise in international markets and use diverse set of tools even more critical. For example, a staggered contracting strategy has helped a client reduce volatility at nearly constant prices for sourcing of corn.

1 McKinsey Global institute

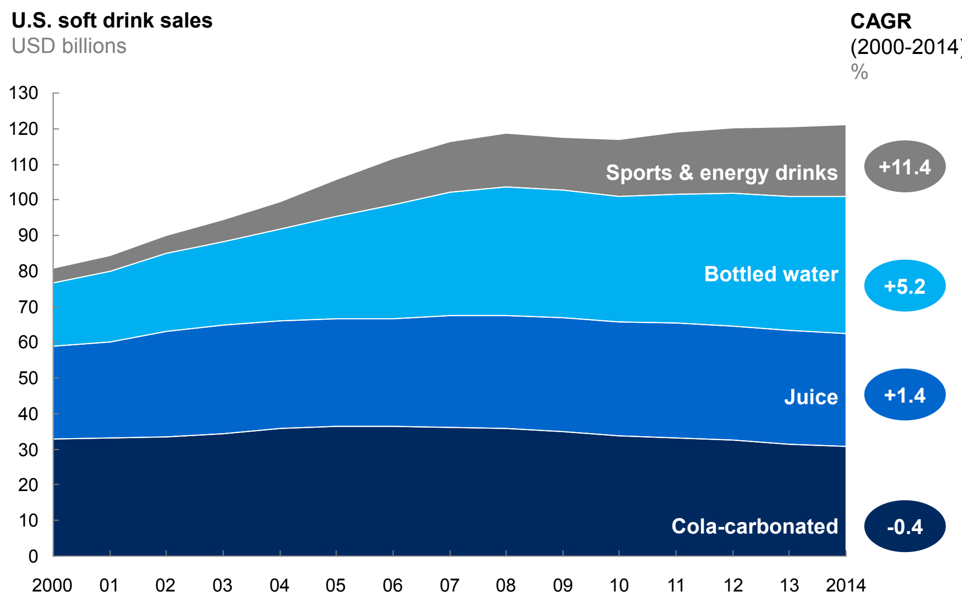
II. Dairy ingredient and products beyond traditional dairy are growing faster than world milk production

The dairy market in the U.S., particularly for fluid milk and commodity cheese, has had stagnant and sometimes declining growth in recent years. In order to access higher growth in segments that are outside their historic wheelhouse, dairy manufacturers can start thinking of ways to redefine their identities as more than just traditional dairy processors. However, this is not an easy transition. While there are many examples of companies that have excelled at redefining their identities, there are also numerous companies that fell short.

For companies interested in making this transition, the carbonated soft drink industry (CSD) is a good example to look at. Since 2000, the aggregate carbonated-cola market has faced a decline annually of ~0.4% per year. Over the same period, non-CSD products have experienced a positive growth trajectory **(see Figure 4)**. In response, CSD companies redefined their business from being cola-players to companies that succeed from their world-class distribution, marketing and packaging capabilities. As a result, CSD companies were able to expand into this growing adjacent industry by leveraging their existing capabilities and assets.

Figure 4: U.S. soft drink sales evolution

Figure 4

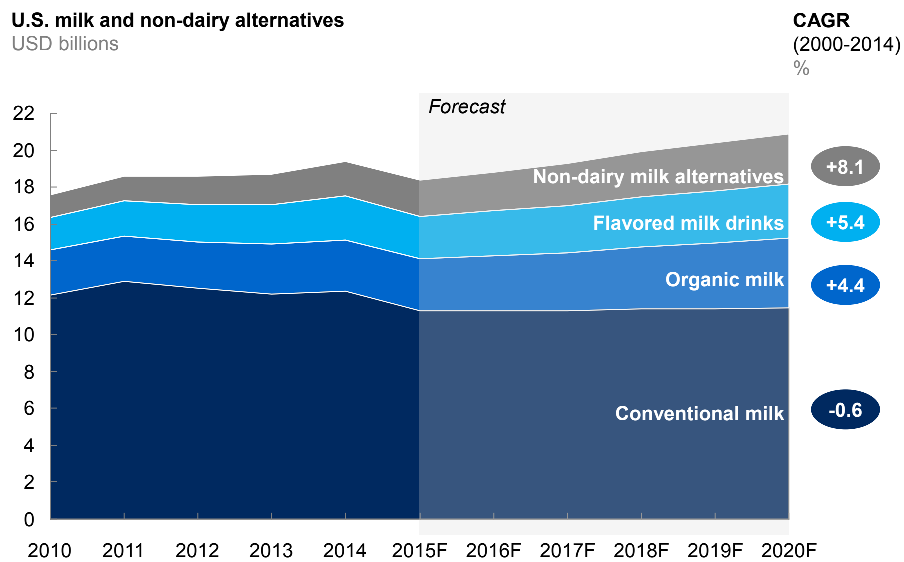


Source: Euromonitor

The CSD market example has many parallels with the dairy industry. Dairy products are losing share to non-traditional alternatives, such as almond and soy milk **(see Figure 5)**, and new innovations within the dairy sector. Amidst this reality, dairy companies have the opportunity to redefine their identity to add non-traditional alternatives to their product portfolio and serve a broader consumer base. Executing on this strategy requires companies to deploy the appropriate amount of capital and resources to new fast growing businesses.

Figure 5: U.S. milk and non-dairy alternatives

Figure 5

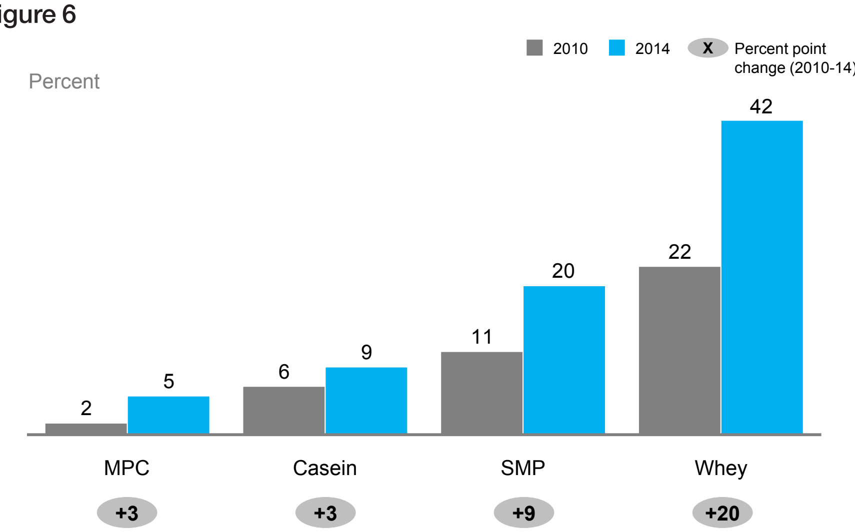


Source: Euromonitor

The next closest adjacency for milk and cheese players today are dairy ingredients, such as whey protein. Over the last several decades, dairy byproducts have evolved into high-value fractions with large markets both in volume and sales. Two reasons explain this phenomena. On the manufacturing side, new sophisticated and cost-effective technology allow milk and cheese processors to develop high-functional products by fractionating milk components at a micro-nutrient level (e.g., MPI, MPH, WPI, WPH). On the consumer side, food makers now are more and more using dairy ingredients for its physical characteristics, while end-consumers continue to increase demand for high protein content foods, such as snack bars and baking ingredient mixes **(see Figure 6).**

Figure 6: Share of U.S. snack bar launches with dairy ingredient

Figure 6



1 Includes snack bars, cereal bars, and energy bars

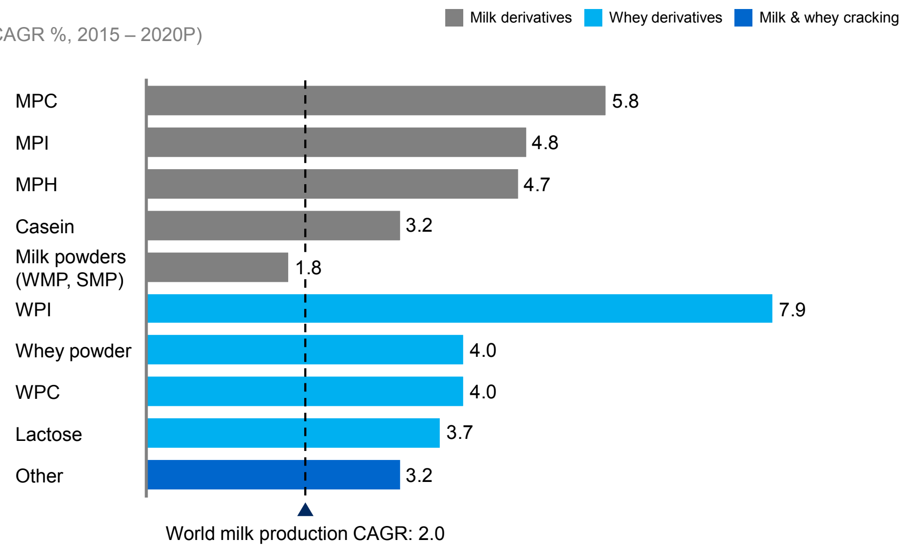
Source: Euromonitor

Because of the growing demand ingredients from food manufacturers, most dairy ingredients' markets are projected to grow faster than world milk production **(see Figure 7).**

Figure 7: Annual projected growth in dairy ingredient volume (CAGR % 2015-20)

Figure 7

(CAGR %, 2015 – 2020P)



1 Other ionclude whey protein hydrolyzed, milk and whey peptides, dairy protein fractions, colostrums, and alpha lactalbumin

Source: Markets and Markets, McKinsey Global Dairy Supply & Demand model, Euromonitor

To be a winning player in the non-traditional alternatives market or dairy ingredients market, U.S. dairy manufacturers will need to consider the following:

A. **Is your business ready to make bold calls to pursue untapped high growth opportunity areas and de-prioritize others?** Executives need to be ready to de-prioritize their traditional dairy products and take informed risks on new launches. This requires understanding at a very detailed level profit pools for less traditional products and how changing consumer preferences will influence both traditional and non-traditional categories.

B. **What do you do better than your competition and how can this competitive advantage help you redefine your business?** Companies pursuing diversified opportunities need to adapt their cultural mindset to look beyond just traditional dairy as a product home. However, this is not a random walk. Like carbonated soft drink companies, dairies willing to go down this path should count on their primary sources of distinctiveness to define where and how to play.

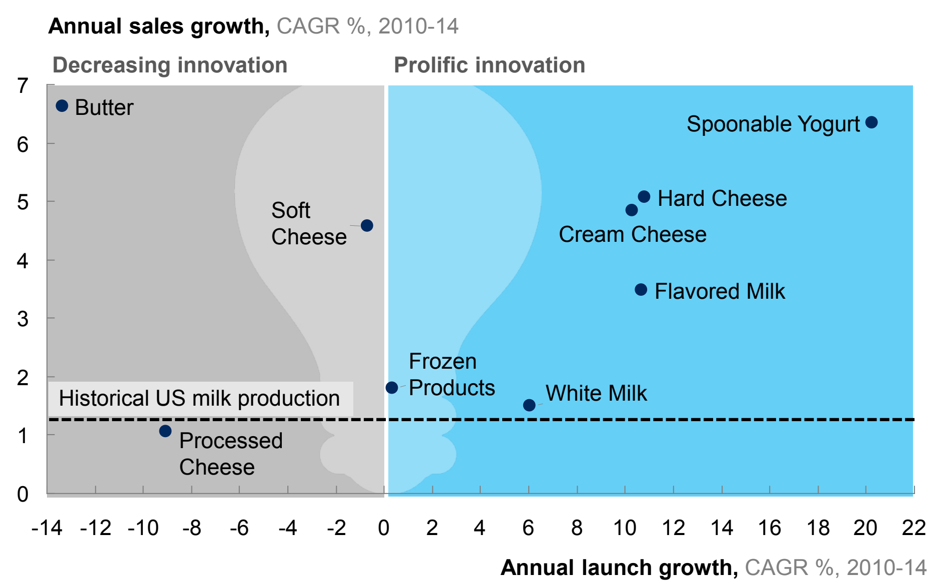
C. **Are you willing to put your capital and resources into this strategy?** Competing effectively outside the traditional marketplace will require significant investments, a fit-for-purpose division with top human capital, and dedicated commercial and operational capabilities. Very often new lines are thought of as a secondary revenue stream and are not given the capital and resources they need to succeed. Being purposeful in building the right capabilities to optimize these sales can result in significant gains.

III. Consumer-insights driven innovation can drive future growth

Several factors underlie the need for U.S. dairy manufacturers to introduce a constant stream of novel products into the market. Diversifying consumer needs, growing granularity of segmentation, and intensifying price competition all drive the need for product innovation. In fact, as a category, dairy is one of the most prolific in terms of new introductions to the market, particularly in cheese and yogurt markets (see Figure 8). While many other packaged goods categories have started introducing less and less innovations year-over-year, dairy launches have grown by 8% per year since 2010. About 75% of the IDFA members surveyed have increased their portfolio more than at least 5% in the past 5 years; co-ops and private companies are leading this trend with 50% and 37% increasing their portfolios above 15% in the past 5 years.

Figure 8: Dairy sub-category launch growth vs. sales growth

Figure 8

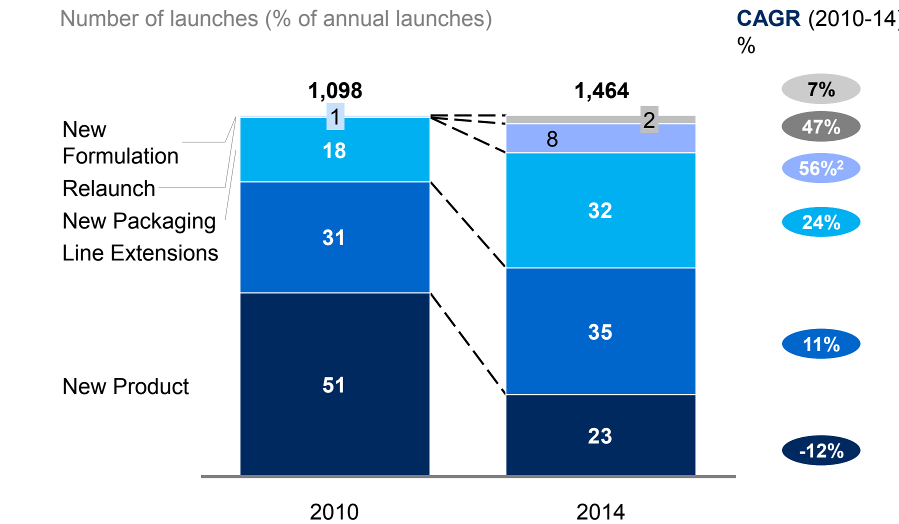


Source: Mintel GNPD, Euromonitor

While this is exciting news, innovation in the dairy industry is still not at its optimum level. First, most product launches are coming from cheese and yogurt categories. Second, new launches are moving away from new products toward line extensions and new packaging. From 2010 to 2014 new product launches declined at -12% CAGR while line extensions and new packaging grew at 11% and 24% CAGR **(see Figure 9).** While this is natural path within consumer packaged goods, a limited amount of new product launches may limit how much incremental growth dairy will have in the coming years, potentially driving the industry back to traditional ways of competing.

Figure 9: Product innovation by type of launches

Figure 9



1 Defined as soft, semi-soft, and hard cheeses

2 CAGR of relaunches from 2011 to 2014

Source: Mintel GNDP

Meanwhile, the retail environment is getting tougher to compete in two dimensions. First, grocer consolidation is putting more margin pressure on food and beverage processors. In 1990, the top five grocers accounted for just 21% of the market. By 2013, the top five grocers in the U.S. accounted for 45% of the market, almost doubling their share. Further consolidation could be possible; in the U.K., the top five grocers in 2013 accounted for 73% of the market. Within this tougher competitive environment, it is getting more critical for grocers to measure store traffic and prioritize shelf space for high-velocity items at the expense of others.

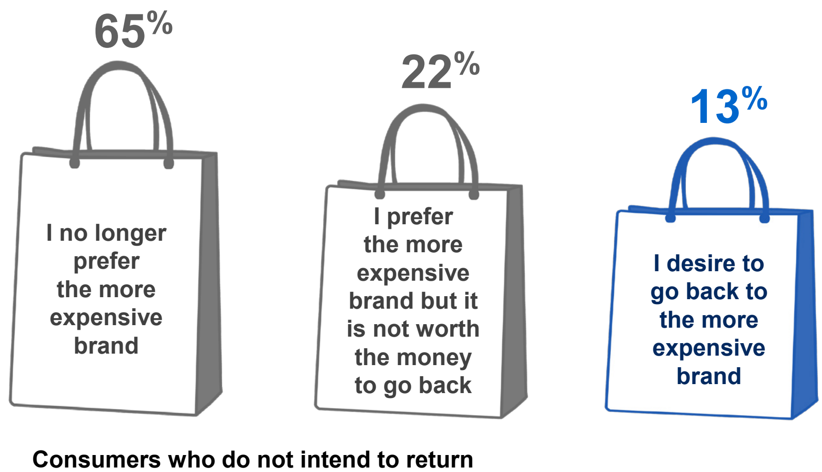
> "Sometimes you have to **rank your children**. We can't afford to have low velocity items on the shelf, and therefore have to **keep only those items that turn the fastest or drive shopper traffic.**"
>
> *Former GMM, Mass retailer*

Second, high private label penetration is also impacting most dairy categories. In the fluid milk category, private labels account for 68% of sales, up from 64% in 2010. McKinsey's Customer & Channel Management Survey also suggests that 72% of consumers who switched to less expensive cheese brands in 2014 do not intend to go back in following years **(see Figure 10).**

Figure 10: How are you feeling about your current purchases of less expensive cheese brands?

Figure 10

% of consumers who reported trading down to less expensive brands



Source: McKinsey Consumer Sentiment Survey XI (Sep 2015), USA results, category dairy milk

In this competitive environment, it becomes even more critical for companies to account for the following few considerations:

A. How can you use advanced analytics more effectively to capture consumer insights and track demand? In our experience, most dairy companies are not yet at the same sophistication level as other consumer package companies. It is imperative for dairies, particularly in retail, to incorporate sophisticated analytics tools to understand the needs of various consumer segments through demographic and needs-based lenses. It is also critical to have an understanding of competitive products in the same schematic in the grocery store. Particularly important is understanding the needs of Millennials as they tend to have different buying patterns then generations before them. This is also important for B2B companies looking to understand their customers' customers. A leading global beverage client facing strong margin pressure and uncertainty about customers willingness to pay in has seen ~2-4% net sales and up to 10% EBITDA impact through conjoint advanced analytics and end-to-end pricing program.

B. **Do you have a "fail fast, learn quickly" approach to managing your product portfolio?** Innovation is known to drive growth, but it exposes manufacturers to the risk of overly complex product portfolios that can burden operations and result in a long-tail of slow turning SKUs. Manufacturers should be extra cautious to analyze which products are truly driving growth, and quickly de-prioritize SKUs that are less profitable and cannibalizing other products on the shelf at an unsustainable cost. In our experience, best-in-class innovators adopt multiple techniques to "fail fast, learn quickly". For example, they conduct continuous and rapid A/B testing of product and features to get material data after go-live.

IV. Continuous improvement of the bottom line will remain critical in dairy

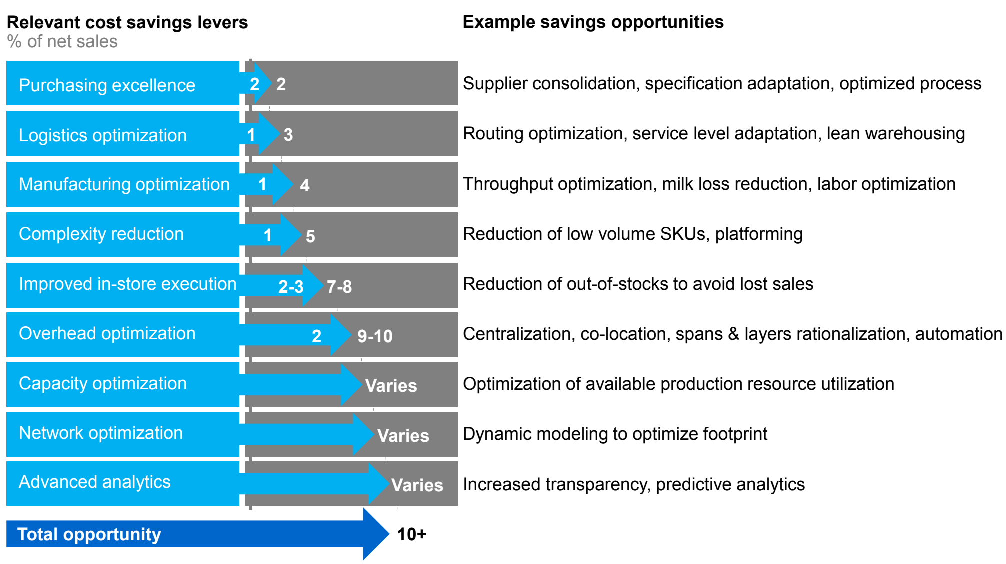
The dairy industry has a legacy of continuously striving to achieve operational excellence. Given the unique challenges the industry faces, like short shelf-life products, frequent direct store deliveries, and a low liquidity raw milk market, continuous improvement remains top of mind. Particularly complicating to the industry is the legacy of mergers and acquisitions, leaving many consolidated manufacturers with under-optimized plant and capacity.

Our experience with dairy companies suggests a potential operational improvement opportunity of >10% of net sales through a comprehensive transformation program **(see Figure 11),** with conventional levers such as manufacturing optimization and purchasing excellence along with more cutting edge opportunities through the use of advanced data analytics (e.g., predictive analysis, dynamic optimization).

When optimization of these traditional operations levers are combined with cross-functional collaboration in both planning and execution – such as with the utilization of cross-functional control tower meetings – companies can capture additional efficiencies on top of gains from improvements in operational levers.

Figure 11: Potential savings for a typical dairy company through a comprehensive operational improvement program

Figure 11



Source: McKinsey analysis

To continue to reduce costs will require companies to consider the following:

A. **What would it take to create a continuous improvement culture in your operations and push it above and beyond industry best practices?** Companies can unlock additional value from assets by using advanced analytics to increase throughput though better equipment utilization and upstream waste reduction, as well as to optimize routing and truck-loading, lean warehousing and inventory. It also is imperative for companies to develop long term design-to-value and procurement capabilities to continuously eliminate unnecessary products and purchasing costs. A 3-wave procurement transformation in a global food client delivered 10%+ savings across several ingredients, packaging and indirect categories, a 1.9x of historical savings in first two years.

B. **Are you ready to increase collaboration among operations, consumer insights, demand forecast and sales to plan and execute your strategy in a cross-functional manner?** Creating cross-functional internal collaboration among multiple functions is easier said than done. Successful companies establish structured processes with a combination of change management techniques, including role modeling, reinforcement mechanisms and capability building to establish and sustain collaboration. A cross-functional multi-layer War Room structure helped a consumer company client reduce push products and gaps in supply and improve service levels with $30 million annualized EBITDA impact and $230-320 total potential reduction.

Conclusion: Growing in the future dairy industry will require strategic focus

The future is vibrant for those U.S. dairy companies willing to make bold changes. International demand is growing, and domestically milk is in a unique position to leverage its nutritional value to meet consumer demands for protein and healthful products. We have outlined four strategies we believe will drive the most value for U.S. dairy companies. A clear understanding of future success and focused attention on a winning approach can lead to a future of growth for dairy companies in this evolving environment.

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