# CURRENT TRENDS OF GLUTEN-FREE PRODUCTS

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**Abstract**

Gluten-free food was among the top five most-searched words on Google in 2013. In the past five years, "gluten" has steadily advanced in consumer online-search interest. Globally gluten free products were estimated to have a market potential of 4639.13 Million USD in 2015 and 7594.43 Million USD in 2020. Gluten-free foods are not only just a fad but a rising marketing section which has grown from a niche market to a main-stream market segment. It has immense potential specially in developing nations when its demand is rising due to increase in awareness, product availability and number of cases being diagnosed

**Keywords: Gluten-free, celiac disease, gluten**

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**Market overview**

Gluten-free food was among the top five most-searched words on Google in 2013. In the past five years, "gluten" has steadily advanced in consumer online-search interest. It has become the hot topic in food publications and business news. Sheluga D. (2014) defines gluten-free products as those specialty products that are intentionally directed to the consumer who needs or wants to buy a substitute for wheat-, barley- or rye-based products. Places where gluten-free products could be bought are grocery stores, drug, mass merchandising, clubs, dollar shops, military canteens, online stores, health food stores and specialty food stores.

Globally gluten free products were estimated to have a market potential of 4639.13 Million USD in 2015 and 7594.43 Million USD in 2020. The North American region accounted for the largest share of the gluten-free products market, at a value of USD 1,985.72 million in 2014. The European market is projected to grow at the highest CAGR of 11.2% from 2015 to 2020 (MarketsAndMarkets, 2015).

The gluten-free products market is a diversified and competitive market with a large number of players. It is dominated by various players, depending on their core competencies. The key players in this market are the Boulder Brands Inc. (U.S.), The Hain Celestial Group, Inc. (U.S.), General Mills, Inc. (U.S.), Kellogg's Company (U.S.), and The Kraft Heinz Company (U.S.) (Mintel, 2014).

Bowman Ingredients, 2014 in Europe forecasted that sales volume would increase up to 40% in 2015 and UK gluten-free market would rise to £250 million by 2017. Apart from gluten-free flour, biscuits, cookies and snacks, product innovations like gluten-free beers and wines are becoming very popular. One such example is Lasso drinks' "Against the Grain" beer which has become quite popular (Lasso drinks, 2015). In Europe and America, organically produced, non-GMO, gluten-free products are doing well, a few examples are Hain Celestial Group, VitaFiber and Cocozia. Ten years ago, gluten-free foods were only sold in local bakeries, natural channels and established stores like Whole foods market, Traders Joe. While most of the early products were tasteless, the flavour and shelf-life of recently launched gluten-free products have improved significantly. These products are now marketed and sold in mainstream retail stores like Stop &

Shop, Safeways, Walmart etc. Restaurants are redoing their menus to attract gluten-free customers, food manufacturers are creating new products, and retailers are redesigning their stores (DeJesus, 2015)

**Types of Gluten-Intolerance:**

- Celiac Disease (autoimmune disorder)-Gluten triggers immune system to attack the lining of small intestine
- Gluten sensitivity (Non-celiac gluten sensitivity/ Gluten Intolerance )-People who don't have celiac disease, but suffer symptoms from gluten
- Gluten rash (Dermatitis herpetiformis)-Incredibly itchy skin rash that occurs when you eat gluten
- Gluten Ataxia-Attack by your immune system on your brain and neurological system in response to consumption of gluten-containing foods
- Wheat allergy- Allergic reaction actually involves more components of wheat than just the gluten protein

The classical presentation of celiac disease, with symptoms referable to the gastrointestinal tract, may account for only a proportion of the cases. The fact that celiac disease is actually a multi-system disorder which is highly variable in its clinical expression, may occur at any age, and may present with a variety of manifestations. The diagnosis is often delayed for these reasons (Gluten Intolerance Group of America, 2014)

The estimated population prevalence of diagnosed celiac disease in many Western countries approaches 1% to 2–5%. The global gluten-free market is projected to reach US$6.2 billion by 2018, with North America contributing about 59% of the share (Markets&Markets 2013). The U.S. is the largest and fastest-growing gluten-free market globally.

North America is the largest market for gluten-free products which accounted for a market share of 52% in 2014. The celiac disease incidence rate for Americans is one in 133. About three million Americans have celiac disease and a further estimated 40 million suffer from gluten-intolerance or sensitivity. It has been anticipated that the number of celiac patients is expected to double every 15 years (Mintel, 2014)

Perceived as a 'Western disease,' gluten sensitivity has never really been taken seriously in India. Due to lack of awareness it has remained highly under-diagnosed. According to Dr. B.S. Ramakrishna (2012) celiac disease is an impending epidemic. Unlike traditional allergies, which cause immediate reactions, gluten sensitivity is harder to pin down since it's gradual and comes in various forms: headaches, stomach cramps, bloating, anxiety, and depression.

As per Packaged Facts, 2013, the sale of gluten-free market in the United States was $4.2 billion in 2014. It predicts that the category will grow to $6.6 billion by 2017. North India is referred as a "celiac belt", where a greater than average number of people exhibit symptoms of celiac disease. This is partially because more wheat is consumed in this region, but also because the population possesses haplotypes necessary for celiac disease to develop. Prior research found that about 1% of the Indian population has celiac disease, almost entirely in Northern India. This prevalence is very similar to the prevalence in the U.S. and some other areas of the world. Dr.Makharia's (2010) new study sought to update and further investigate the prevalence of celiac disease throughout India. The present study sampled 23,331 adults from India and found that Northern India had the highest prevalence of celiac disease (1.23%), North Eastern India had an intermediate prevalence (0.87%) and Southern India had the least prevalence (0.10%).

The gluten-free foods market in Asia-Pacific is estimated to grow from $340.8 million in 2013 to $502.5 million by 2018, at a CAGR of 8.1% from 2013 to 2018. The changing lifestyles and the working culture are adding to the demand for gluten-free products in the Asia-Pacific market. Countries such as China, Japan, India, and Australia are the biggest consumers of gluten-free food products. The Asia-Pacific region, with the largest population in the world as compared to other regions, has been witnessing impressive growth in the demand for gluten-free foods in recent times. Among the different types of gluten-free foods, the gluten-free bakery & confectionery segment has acquired the largest share of the gluten-free foods market and is also anticipated to post the fastest growth (MarketsandMarkets, 2015).

Inspite of high growth, gluten-free foods are facing problems to establish themselves in Asia market due to high price, lack of awareness about the products, increased number of un-diagnosed cases and inefficient value chain for gluten-free products (Mintel, 2012).One of the major issues gluten-free foods are sky touching prices as compared to regular products. They are almost 200 times expensive than regular foods.

Factors leading to high prices of gluten-free products as suggested by Gluten-Free Standards Organization (2014) are:

1. Vigorous certification process for a product to carry a gluten free label.
2. High cost associated with certification process.
3. For a product to be labeled gluten-free, the level of gluten must be less than 10ppm, determined by third-party testing.
4. Manufacturing in a dedicated gluten-free facility
5. Utilizing specialized equipment
6. Creating written documentation on product specification and analysis
7. Creating written document on processing conditions and certifications
8. Testing every batch produced for gluten and allergens
9. Obtaining third-party written certification to verify products as gluten-free
10. At every stage of manufacturing and bringing a product to market, cross-contamination with gluten is possible, and protecting against that cross-contamination requires extra work. To ensure that products remain gluten-free at all times, manufacturers need procedures in place to address this risk.

Going forward, the price of gluten-free foods will remain high until more people are diagnosed with celiac disease or prefer to purchase gluten-free foods for other reasons. In other words, the price will be high until critical mass in the retail and manufacturing segments is reached. Halifax did a cost comparison study on the cost of gluten-free products in 2008, finding they were 242 per cent more expensive than comparable, regular products (Gluten-Free Standards Organization, 2014)

But in a new study by Dr.Missbach (2015) found that difference has shrunk. Gluten-free flours, baked goods and prepared foods are now 162 per cent more than regular products.

Study by Canadian Celiac Association (2014) tells that some celiac patients resist gluten-free foods due little bit low nutritive value as compared to foods containing gluten. This problem is very acute in Asian region where wheat is considered as one of the major source of fiber and protein. Studies should come up better high nutrition gluten-free foods at affordable prices.

Dr.Makharia's research (2014) found that currently available gluten-free food in Asia-Pacific region have low nutritional level as they are being locally prepared and provides an opportunity for global brands to enter in this markets due to increased number of celiac patients, awareness about availability of international brands and improved incomes. America has wide range of products available from low nutritive to high nutritive value. But mostly people prefer cheap gluten-free products with low nutritive value. Studies of value chain in both the nations will provide an opportunity to leading brands to come up with affordable options with high nutritive value to achieve economies of scale and to satisfy the masses with their quality products.

As per Singh (2011) India is an important global producer of important gluten-free sources such as sorghum (5.54 million MT), rice (106.54 million MT), corn, soybeans (9.8 million MT), millets (11.66 million MT), and pulses in MY 2013/14, according to the USDA. However, wheat has been a staple diet in the northern parts of India and this can led to higher risks for celiac disease among the consumers. With the increasing rate of diagnosis and awareness about celiac disease, the demand for gluten-free products is projected to grow in terms of value at the highest CAGR of 10.7% from 2015 to 2020 in the Asia-Pacific region. The demand has also been increasing in other parts of India as consumers are seeking more processed varieties of gluten-free products.

**Growth of gluten-free products as per channel and product segment**

Table 1: Gluten-free products market size, by distribution channel, 2013–2020 (KT)

| Distribution Channel | 2013 | 2014 | 2015-e | 2020-p | CAGR (2015–2020) |
|---|---|---|---|---|---|
| Conventional stores | 212.93 | 232.56 | 254.11 | 400.77 | 9.54% |
| Hotels & restaurants | 26.28 | 28.53 | 30.98 | 47.40 | 8.87% |
| Educational institutions | 39.75 | 43.33 | 47.26 | 73.82 | 9.33% |
| Hospitals & drug stores | 24.01 | 26.00 | 28.16 | 42.50 | 8.58% |
| Specialty services | 28.63 | 30.69 | 32.92 | 47.09 | 7.42% |
| Total | 331.60 | 361.11 | 393.43 | 611.58 | 9.22% |

e – Estimated; p - Projected

Source: Expert Interviews, Related Research Publications, Government Publications, and MarketsandMarkets Analysis

Conventional stores played an important role in the distribution of gluten-free products and this category accounted for the largest share of ~64% in 2014. Conventional stores are also projected to grow as the fastest growing distribution channel at a CAGR of 9.54% from 2015 to 2020.

Table 2: Gluten-free products market size, by distribution channel, 2013–2020 (USD million)

| Distribution Channel | 2013 | 2014 | 2015-e | 2020-p | CAGR (2015–2020) |
|---|---|---|---|---|---|
| Conventional stores | 2287.85 | 2524.92 | 2787.57 | 4596.90 | 10.5% |
| Hotels & restaurants | 368.25 | 403.99 | 443.35 | 709.32 | 9.9% |
| Educational institutions | 384.99 | 425.03 | 469.40 | 775.39 | 10.6% |
| Hospitals & drug stores | 311.61 | 340.86 | 372.99 | 587.81 | 9.5% |
| Specialty services | 466.01 | 513.40 | 565.82 | 925.00 | 10.3% |
| Total | 3,818.70 | 4,208.21 | 4,639.13 | 7,594.42 | 10.4% |

e – Estimated; p - Projected

Source: Expert Interviews, Related Research Publications, Government Publications, and MarketsandMarkets Analysis

Due to the initiatives taken by national government authorities to safeguard the health of the younger generation, schools and colleges are observed to be an effective center to initiate the supply of healthy and free-from foods. The sales of gluten-free products through educational institutions are projected to grow at the highest CAGR of 10.6% from 2015 to 2020.

Thus it can be concluded that gluten-free foods are not only just a fad but a rising marketing section which has grown from a niche market to a main-stream market segment. It has immense potential specially in developing nations when its demand is rising due to increase in awareness, product availability and number of cases being diagnosed.