Product Classification

QUICKLIZARD

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What Is Product Classification

Product classification, also known as article segmentation, is at the core of a successful pricing Strategy. Product classification breaks down the assortment and allows the application of different pricing strategies to different products. The methodology centers on categorizing the assortment into three separate groups that serve different purposes.

1
Key Value Items (KVIs) - essential products that drive store traffic and influence price perception

2
Volume Drivers - essential products that drive volume and increase basket size

3
Profit Generators – non-essential products that drive profitability

For retailers, all three groups are necessary and help build a multi-item basket. While different industries have varying basket sizes, product classification works to form the full customer journey, from entrance to profitability.

Average basket sizes across key industries

Industry	Value
Shoes	1.54
Jewelry	1.81
Fashion	1.97
Electronics	2.21
Furniture	2.54
Office Supplies	2.63
Sporting	2.63
Furnishings	2.67
Others	2.95
Hobbies & Music	2.98
Cosmetics	3.31
Alcohol	3.39
Specialty Foods	3.71
Beverages	3.77

The Three Groups

1 Key Value Items (KVIs)

Key Value Items are used to attract customers into the store. For online retailers, this are known as traffic generators. These items are well-known by customers, purchased often, and sold in high volumes at a low or negative profitability. They may be loss leaders whereby they're sold below market cost to entice customers into the store and 'lead' the subsequent sales of other products. Therefore, pricing KVIs competitively is very important.

A six-pack of Coca Cola is an example of a supermarket KVI. It is a product with high unit sales whose price is familiar to consumers and drives their price perception. Customers use KVIs to classify retailers as 'cheap' in their mind. This then determines their willingness to shop there.

2 Volume Drivers

Once the customer is in store due to a competitive KVI offer, it's time to build profitability. Volume drivers are the second stage in the customer journey. These products have high unit sales and can be found in many baskets. Their profitability is low but better than KVIs. The goal of volume drivers is to recoup some of the customer acquisition cost from competitively priced KVIs.

In a supermarket, a 16-ounce pasta sauce is a volume driver. It is found in many baskets but is not a traffic driver and its price is less easily recalled than that of a six-pack of Coca Cola. It drives volume, but not price perception. While KVI price changes are correlated with the total amount of store traffic, volume drivers are not.

3 Profit Drivers

The customer profitability journey ends with profit drivers. After KVIs, profit drivers are the second largest product classification group. This group of products have high profitability and low sales volume. Customers regard these products as non-essential. Their contribution to profit is higher than their contribution to revenue.

Unique types of flour such as chickpea or quinoa flour are examples of a supermarket profit drivers. They are specialty products that do not appear in many baskets and have higher pricing than the all-purpose essential varieties.

The Logic

Grouping products into these three categories begins with audience demographics.

These include factors such as age, household income, and location. For physical stores, location is the biggest determinant while for online retailers it is branding and marketing spend.

Audience

Two locations of one supermarket chain can have different classifications because they serve different audiences. A store located in a small location in a city center that caters to professionals has different KVIs than a store located out side of the city catering to families. Historical purchases, age, gender, and household income are factors that are commonly used to segment audiences.

Key value categories (KVCs)

Once the audience is known, key value categories (KVC) can be identified. KVCs are categories that drive customer price perception the most and have a high number of KVIs. Beverages and baby products are examples of Supermarket KVCs.

Key value items (KVIs)

Identifying KVIs then relies on looking at key performance indicators (KPIs) of the products within the KVC. Products that are elastic and have high sales volume, low profitability, and high price recognition are KVIs. The purchase of these products is highly influenced

Once the KVIs are known, volume drivers are next. Although both KVIs and volume drivers have high unit sales, KVI price changes are correlated with the total amount of store traffic while volume drivers are not. For online retailers this identification is even easier as page views and conversion data is directly available. A product with a high proportion of page views influences the total number of sessions and is therefore a KVI.

While the distinction between KVIs and volume drivers depends on the KPI thresholds chosen, profit generators are easier to identify. Profit drivers are the non-essential products within the KVC that contribute more to profitability than they do to revenue. Their unit sales are lower, but their profitability is higher.

In Practice

For a home goods retailer, pots and pans are a KVI and are often offered at a discount to get customers into the store. This is because kitchenware pricing is elastic and customers can easily substitute across brands. They are the entry product. Once a customer is in the store, the money lost on that sale is made back on ancillary products. Towels and plant pots work as volume drivers and rugs, sofas, and wardrobes work as profit generators.

In the supermarket cereal products category, a top selling product such as a national brand of cornflakes is a KVI, a special imported cereal is a profit driver, and the rest of the items in the category are is volume drivers. While revenue, units sold, and price recognition are the most used KPIs for product classification, the choice of additional KPIs is down to each retailer.

Considerations
In Retail

Complexity

A small assortment does not guarantee a simple product classification. A pet store with a smaller assortment may be more difficult to classify than a supermarket. Selling across different locations or online and offline introduces further complexity. A KVI in one location is not necessarily a KVI in another. 100 products in different categories that are sold both online and offline may be more complex to classify than 1000 products that are sold in one location. Additionally, the same product may have completely different sales online and offline.

Strategy

Just like audience and location influence KVCs and KVIs, different business strategies dictate different classifications. A profit-maximizing strategy shapes KVI choice differently than a traffic-driving strategy. One product can be a KVI in one strategy and a volume driver in another. Even in the case of equivalent KPIs, chosen KPI thresholds can differ depending on a retailers' strategy. For a profit-maximizing strategy, a retailer may want to attract less price sensitive customers and may look at offering better pricing on luxury products or increasing their marketing spend.

Pricing knowledge

In the digital era, price comparison is very easy. Previously, customers had to rely on memory to recall prices across different retailers. The availability of the internet, as well as the development of price comparison engines, has eliminated the need to rely on memory. A quick search is enough to provide high levels of pricing transparency. This allows smart shoppers to engage in KVI arbitrage by purchasing competitively priced KVIs across different channels and retailers based on the most competitive pricing.

Big data

Multiple data sources and the wealth of data currently available to retailers makes product classification more complex. Competitor pricing changes, multi-channel retail, as well as online and offline audience variation all play different roles for retailers. A high volume product could be classified as the top performer in the category or the top 5 performers.

Case Study
Amazon & Whole Foods

Amazon acquired the premium grocery chain Whole Foods in August 2017. In the 18 months that followed, they executed multiple price cuts. The first of these cuts saw prices drop from 6% on products such as pasta sauce, up to 30% on roast chicken. These sharp cuts mean that Amazon identified these products as KVIs. While the initial price cuts were generally broad, they did have regional variations.

Shortly after the initial changes, Amazon further consolidated the price position by cutting prices on 500 additional products in the produce category specifically. In this case, produce was identified as a KVC; a category that drives traffic and price perception. The discounts included offers such as yellow mangoes for $1 and cherry tomatoes for $3.49 for 12 oz. In this case, mangoes and tomatoes were identified as the KVIs within the produce KVC.

To further stimulate growth and shed more of the chain's high-cost image, Amazon offered additional discounts to Prime members. They offered 35-40% discounts on 300 top selling products on an ongoing basis. Every week, up to 20 discounted deals became available to Prime members only. Changing price perceptions is a long-term game and Amazon understood the task at hand by working to alter price perceptions while maintaining the premium organic branding that Whole Foods built over the years.

Product classification is a crucial part of retailers' pricing success. While the categorization of products is important, the real success lies in embracing the method. It all starts with the customer.

The Quicklzard product classification module uses data science to validate and automate the product classification journey to allow retailers to optimize pricing at a category and product level and enable multiple pricing strategies across the full assortment.

The proprietary algorithm and full suite of pricing optimization and enrichment modules advances pricing excellence, at scale. It enables retailers to automate pricing and move to a fully digitalised pricing infrastructure that is tailored to business goals. Powered by science, designed for success.

To learn how Quicklizard can help you achieve pricing excellence, speak to one of our pricing experts today.

How Quicklizard can help

Learn more
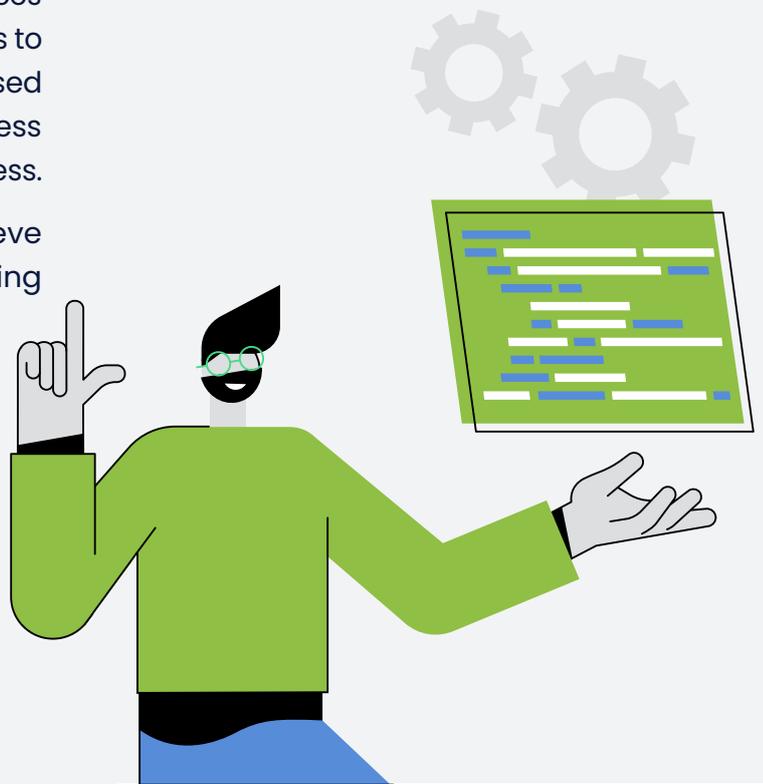
QUICKLIZARD

Quicklizard enables retailers and brands to automate their pricing strategies and move from manual pricing to a smart, fully automated digital pricing infrastructure. The Pricing Platform and suite of pricing optimization and enrichment modules advances pricing excellence at scale, based on individualized business goals.